

A Complete Bibliography of *Lecture Notes in Computational Science and Engineering*

Nelson H. F. Beebe
University of Utah
Department of Mathematics, 110 LCB
155 S 1400 E RM 233
Salt Lake City, UT 84112-0090
USA

Tel: +1 801 581 5254
FAX: +1 801 581 4148

E-mail: beebe@math.utah.edu (Internet)
WWW URL: <http://www.math.utah.edu/~beebe/>

13 October 2017
Version 2.06

Title word cross-reference

1 [BSS14, CG11, MZ14]. 2 [ASB⁺06, BHOP14, CNZ11, CHM11, GZS07, GFS06, GA09, GTS⁺11, HH14c, KKY00, Leu08, LS00, MR02, SAB⁺06]. 3 [BP03, Bos01, BMR03, DW13, DS14, EGZ99, FdlPFC15, FLTD09, GA09, GTS⁺11, GPG08, Gro11, HKN98, IT09a, JS09, KKLD02, KRW05, KR07, KR08, KHD05, KHD07, LDHS13, Le 07, LPH00, LB11, MR02, MG09a, MPLT00, PDB06, PKKS11, PMSK00, RIM05, RP08, SG09, ÜG09, WGKM10, WL14, WHHS13, WLP⁺06, WO00, XCL11, iYN02, ZS09]. 65° [TOG09b]. 0 [Bre12, LW07b]. 1 [LMR11b]. 2+ [Hak12]. 3 [GS02a, VL07]. ^k [LSL05]. ^m [LSL05]. ⁿ [LSL05, TWW12]. TM [GF12]. 2 [HHB04, SU13]. ^N [Swe06, MHBM06]. ^A [vdV00, van00]. ^α [GACD05]. ^{C(p, q, j)} [POD09]. ^{C⁰} [BMS15, Wan13]. ^{E ≠ 0} [CRS06]. ^f [DH05a]. ^{f(A)b} [DH05a]. ^{f(A)x = b} [vdV00, van00]. ^H [FMP14]. ^{hp} [BN11, BC02a, CH11, Dem03a, Dem03b, EP11, ZR11, DM11, Sch99b, SSH00, BSS14]. ^k [HBCC14]. ^{k · p} [Bir14, VS14, ZAEK14]. ^{kω} [WL14]. ^{L²} [LS09a]. ^μ [Bli04]. ^N [BHLR99]. ^p [Bv01, DM14, MBR⁺07]. ^{P_n^{α,β}} [Dra11]. ^r [Hac13]. [★] [PG11b]. ^{SU(N)} [dFJ05].

τ [PG07]. θ [Klo01a].

-Adaptive [BN11, Dem03a, Dem03b, ZR11]. **-Analysis** [Bli04]. **-Based** [Dra11]. **-Body** [BHLR99]. **-cyclic** [Bv01]. **-D** [DS14, GZS07, IT09a, KR08, MZ14, ÜG09, WLP⁺06]. **-DGFEM** [SSH00]. **-Exact** [HBCC14]. **-extrapolation** [PG07]. **-FEM** [DM14, DM11, Sch99b]. **-Matrix** [FMP14]. **-Method** [Klo01a]. **-Nitsche** [CH11]. **-shape** [GACD05]. **-Term** [Hac13]. **-Trace** [LS09a]. **-Version** [MBR⁺07].

/C [LSL05]. **/P** [LSL05]. **/Python** [LWH12].

'09 [HR11].

1 [ABG07, VZ08]. **10th** [ADK⁺15]. **'12** [AHE13]. **'14** [KBH15]. **18-22** [ABC⁺14]. **1993-2007** [Yip09]. **1996** [HW98]. **1997** [DHL⁺99, KOR99]. **1998** [BDZ99]. **1999** [DRV00, FLMS00]. **1Scheme** [ED07].

2 [SW08]. **2000** [SG02]. **2001** [BDZ02, CFH⁺03]. **2002** [Bän03]. **2003** [BMS05c, BFJ⁺05, PLW05]. **2004** [Gra06]. **2008** [HKOS09]. **2009** [ERT12]. **2010** [BJ12]. **2012** [GP14]. **2013** [ADK⁺15, ABC⁺14]. **2D** [GPG08]. **2D/** [GPG08]. **2LM** [Rou09]. **2nd** [DHL⁺99, dFS11].

3 [EIL08]. **3-D** [IT09b, SUGL09]. **3-Dimensional** [Oht02]. **3-Dimensions** [Cho05]. **3.1** [ALK13]. **3rd** [BDZ02, SG02, vRGH01].

4th [Mar09].

a-posteriori [Le 09, Zun09]. **A-priori** [DLP02]. **Ab-Initio** [Mei99]. **ABINIT** [HJR06]. **Abridged** [Gre00]. **Abscissas** [Lou04]. **Absorbing** [Hag03, HH03]. **abstract** [Ano05g]. **Accelerated** [Che05, GPG08, vZB10]. **Acceleration** [BGOD05, BUM⁺15, Boy11b, GFS06, KKY00, LPH00, LKR05, OWWG00, TDV11, TD11b, WO00]. **Accelerator** [SJB06, vR01a]. **Accelerators** [SS07a]. **Acceptability** [Joh04j]. **Access** [OK11]. **Accommodating** [Wid09a]. **Accumulation** [CHM12]. **Accuracy** [AD11, Gje98, Gri09a, VL12, MB01, NS02, RHH00, Rya15, Var05, vdVvdV00, CL05a, GA09]. **Accuracy-Conserving** [Rya15]. **Accuracy-Enhancing** [Var05]. **Accurate** [EKN15, FBAC11, HMI07, HM11, SRPD06, SUGL09, SBMD06, vVVK10, LB11]. **Acid** [AMW02]. **Acids** [TV99]. **Acoustic** [Ala11, Ann04, AGH⁺08, AB05, Che08]. **Acoustics** [Bru03, BKK⁺15, DDS07, SW11]. **Active** [Ann04]. **Active-adaptive** [Ann04]. **Actively** [WL05]. **ActiveSpaces** [CDH⁺00]. **Activity** [SM08, SLG03]. **AD** [GF12, NN12, PC06, RP12, SW06a, Tad08, Wer06]. **AD-based** [SW06a]. **AD-Enabled** [GF12]. **Adaptation** [LPH00]. **Adapted** [Bar07a, FM11, LP03, RL11a, SS07b, Shi11, Urb02e]. **Adapting**

[Löw09]. **Adaption** [SNF00]. **Adaptive** [ASB⁺06, APE05, AHL09, BYJ08, BGK14, Ban05, Ban07, BN11, BN13, BS02b, BIK02, Beh06a, Beh06k, Beh06l, BZ04, Ber03, BK01, BG13, BV98, BBK⁺07, CNSV15, CH00, CSX05, Che08, Chi11, CDD⁺14, CS03b, DHU00, Daw05, Dem03a, Dem03b, DAG15, DHK⁺00, DIV00, DR06, DWB13, DM05, EKS99, EGZ99, FGGZ11, FLST00, FLTD09, GHHL14, GK14, GH13a, GO14, GTD07, GHI⁺14, GWZ14, Hen99, Hen05, HvS12, HJ03, HSZ13a, HWYY11, JR13, KUM15, KFD07, KRU14, KLRR14, KS02b, KSS15, KBG06, Lan00, LB00, LB05, LM05, LL05, LC02, MS07, Mü03a, Mü03b, MLD05, NPS02, OMS11b, PDH07, Pfl13, POD09, PPC07, PLW05, PO03, RR10, Rei13, RSVV08, SJCM05, Sar00, SS05a, SH03, SM11, TH03, WW98, ZR11, Zou11, Ann04, BD03, BPJ14, CC09, CDM05]. **adaptive** [FBC05, GBG⁺05, LEB05, MDC11, Sel12, PLW05]. **Adaptive-Mesh-Refinement** [PDH07]. **Adaptive-Multilevel** [SM11]. **Adaptive-Smoothing** [DIV00]. **Adaptively** [XGL05, Zum00a]. **Adaptivity** [Bar05, FMH02, GS07c, HDF11, LHC02, Sii99, Sül99, UWN⁺15, Zum00b, MP05]. **Added** [YM09]. **Added/** [YM09]. **Addition** [HC08a]. **Additional** [FB07]. **Additive** [Bad08, BBC05, FL00, GS08b, Kwo11, LG09, LG11, Mar09, MP08, Pfl00, RXH05, SS07b, SZ07, SCGT07, Wan13]. **ADI** [DFR14]. **adiabatic** [SE09]. **ADiMat** [BB06b]. **Adjoint** [Ano08-29, BMN12, CDH06, CS03b, GK06, GP03, HAP06, PS03, SL14, TF06, WB12, XXM06]. **Adjoint** [NR06, RWS08]. **ADOL** [BGK08, HK06, KM12b, MLG08]. **ADOL-C** [BGK08, HK06, KM12b, MLG08]. **Adsorption** [Abr04]. **Advance** [MT02]. **Advanced** [BBW13, CDH⁺00, ENOD99, FRXT99, KV10, LS99, LT03, MR09, NDBG14, SE03, VZ08, ADK⁺15, EK14]. **Advances** [BBH⁺08, FHP⁺12, Hay11, KLP14, KFMK05, LBQ00, NG04, RMBR13, WGG06]. **advancing** [dK09a]. **Advection** [BC02b, CM11, Dub07, GR05, GHJM07, GHK07, HH15, LKV00, LKR05, LT09, RL05, Zun03]. **Advection-Diffusion** [BC02b, CM11, Dub07, LKR05, RL05, Zun03]. **Advection-Diffusion-Reaction** [GHK07, LT09]. **Aeroacoustic** [ÖD09b]. **Aeroacoustics** [DL02]. **Aerodynamic** [GK09a, IWK⁺11, KCO09, MBR11, VPRF11, YHM⁺03, PEG11]. **Aerodynamics** [ASW09, BC09a, Sah09]. **Aeroelastic** [Svá09]. **Aeroelasticity** [BS13, Wen08]. **aerosol** [Tsa04]. **Aerospace** [Atk00]. **Age** [CGG08]. **Age-structured** [CGG08]. **Agent** [GMS11]. **Ages** [MS11]. **Agglomerate** [CFH⁺07, EGV11]. **Aggregation** [BBK⁺07, LT02, SS02]. **Aging** [HFSS06]. **Agitated** [AGH⁺08]. **Aided** [KBS⁺99, SACP09, Yip09]. **Air** [CGDV07, EKKvS99, KLGR05, SG09]. **Airbag** [MKZS06]. **Aircraft** [FRXT99, Kro02, PFG08]. **Airfoils** [KT09, KT11]. **Aitken** [BGOD05, FLTD09, LG09, LG11, TD11b]. **Aitken-Additive** [LG09, LG11]. **Aitken-like** [BGOD05]. **Alamos** [WG05]. **alanates** [MBM09]. **ALBERTA** [SS05a]. **ALE** [HT06, PMSK00, WGG06]. **Algebra** [ABT99, SL00]. **Algebraic** [BBC⁺14a, BZ07, BCKZ13, CV00, CS03a, EGV11, ENOD99, GGN07, KR00, Kic98a, Kic98b, KS98, MS05a, Med00, Not00, Reu00, SLST07, SCG09, Wag00, Yan06, YZ11, ADDdS11]. **Algorithm**

[ASB⁺06, Ano05r, Ano05s, Ano05t, AA00, Bal05, BEFL03, BH08a, CG15, Dei05, DW13, DN07, GV07, GH08a, GHLSR08, GJ09, GEF05, HLP09, IS09, KJ02, KSS15, KHD07, Liu00, Liu05, LC11, MAK⁺15, SV11, SHH⁺01, SKD02, SM08, SCG09, SR05b, Ste07, SMGR07, Swa00, TBP06, TL14, XGL05, Lan00, MDC11, PE09]. **Algorithmic** [BB08, BWK06, FHP⁺12, Gil08, LN12, MLG08, PBS⁺99, Tur99c].

Algorithms

[ADL...14, Ano08x, Ano08-33, Ano08-34, BD07, BLR02, Ber99b, BKS07, BHJ07, CGHS11, CGP08, CDWW01, DHL⁺99, DFR01, DKW08a, DH05b, DHS07, DVH⁺08, DKB⁺13, DHK⁺00, DW07, DM05, EY12, GHI⁺14, Gus00b, Gus00c, Hal07, Hal08, HBW⁺06, HO14, HHS10, HM06, Isk04a, Isk04h, KKLD02, Kim08, KR08, KD02, LCE⁺06, LGM⁺00, LM11b, MC05a, MBS15, MPLT00, NLC08, NPS02, PvR00, Rei13, RSK11, Rün06, San02, SG02, SAB⁺06, ST00, Ste05, SMT08, SO02, WL14, Wid09b, Yin09, Ano05g, vS99].

Align [JGE06]. **All-Atom** [FWGB02]. **All-floating** [Of08]. **Allosteric**

[MSW⁺06]. **Alloy** [Dan03]. **Alloys** [AG03, GNS03, GE02, Pek03, RJB03].

Almost [KRW07, PW11]. **Alone** [SGT09]. **Alternate** [MC05b].

Alternating [KP14]. **Alternatives** [FP07]. **Aluminum** [Oks03]. **AMDiS**

[RSVV08]. **American** [BM02a, FKMS08]. **AMG** [KV08]. **AMGe** [CFH⁺07].

Amorphisation [GES06]. **Amorphous** [BH06, CRS06, LRH03]. **Amplifier**

[NPLM01]. **Amplifiers** [BM01]. **AMR**

[Bel05, Bor05a, Clo06, Daw05, Dei05, DZ05, Fal05, How05, Jou05, Nik05, Nor05, OBB⁺05, OM05, PVC⁺05, PDS⁺05, RIM05, VPC⁺05, VO05, Zie05].

Analyses [HAP06]. **Analysis** [Alb99, AE12, BS02a, BdS07, BP03, Bli04, BJ12, BVB00, BFSW99, BP04, BFJ⁺05, Bru11, BSS14, CDH06, Che08, CM12, Den02, DH02, EM08, EW08, ERT12, EHL13, Fal00, FBHK15, GH08a, GZS07, GI08, GR11b, Gov13, GHLS12, GGV15, GRF01, HDA⁺04, Hel08, HJR06, HM01, IWK⁺11, JE11, Joh04b, JSH14, JT08, KKM⁺14, KTC07, KLY04, Kik02, KGW99, KZX08, Le 07, LGM⁺00, LP03, LS09b, LG11, MS05a, MN05, MSU01, Mij00, Mül03d, NS01, Oht02, PDF11, PH12, PBG08, PS14, PB12, RDD04, RLEM04, Roy01, SS08, SCMR13, SF08, She00, SM08, Sii99, SDP98, Sül99, TN07, Tai05, TMWT10, TZ11, TG08, Vas00, VPRF11, WT10, WO00, Wu15, YAS⁺00, YHM⁺03, dNKS99, Gri09b, LD12, LOR09].

Analytic [Bre08]. **Analytical** [Gan08a, Joh04f, Ler14]. **Anchor** [ZC11].

and/or [GD09]. **Anderson** [KRSS06, MS06]. **Aneurysm** [BW09]. **Animal**

[FC11]. **Anisotropic** [Cod11, DHK⁺14, FdlPFC15, IH07, KW98, KW04k,

Kuz08, MP05, MR03, SGC07, WO00]. **Annealing** [BH06, HMW02]. **Annual**

[EJHS00]. **ANOVA** [GHH14, ZC11]. **Antenna** [KO11, SDS02]. **Antibiotics**

[LSR06]. **Antisymmetric** [MCC09]. **Antithetic** [BC12]. **Applicability**

[LCYB06]. **Applicable** [KSG⁺06, MYN⁺02]. **Application**

[Ano08a, BM02a, BC09b, Bär02, BG08, BW09, Bor05a, Dei05, DLT14, EGZ99, EE08, ERO99, FMH02, FN02, For14, FRXT99, GZ08a, GC07, HKK14, HDF11, HDY05, HNR99, JRG11, KT05a, KN11, Kno09, Krz05, LDHS13, LS99, LS09a, LHC02, Mac00, MY11, MSD00, MGB02, MT02,

NÖU09, OBB⁺05, OMS11b, ÖNG12, ÖB06, SW06a, THM⁺10, WL14, War00, WHHW11, WO00, ADDdS11, FS11, Gro11]. **Applications** [AK00, ACD02, AYM11, Atk00, BCH02, Beh06a, Beh06e, Bir14, Bv01, BMPC14, BR08, BCH⁺06, BMR03, CP05, Che02, CM12, CKS00b, DLP02, DL11, DS11, EG12a, EKS99, EG08, ER02, FCH⁺14, GG13, GH⁺L07, GT11, HAP06, HM06, Hol11g, Hol11i, HT06, Hub06, KMR13, Kon00, KPR⁺06, Kro02, KZX08, LW05, LT05, LS99, Lan97b, Lan97h, Lan03c, Lan03i, LSZ14, LPKF07, LQW02, MB09a, Mei99, Mil08, NS02, NZ08, ØW12a, OM05, PS11, PLW05, PVC⁺05, PC07, RMBR13, RLEM04, SJCM05, SG02, SF08, SZ09, SU13, Ste08, SE03, SMGR07, TAA04, TG08, TW03, Urb02a, Urb02e, VPC⁺05, VRMD00, Vil05, VGK08, ZR11, vR01a, vR01b, vR01g, ADK⁺15, GP14, Lan00, TDBEE11]. **Applications-** [PVC⁺05, VPC⁺05]. **Applied** [Ant05, DNR08, DG08, FZ07, FB13, FLMS00, GEF05, KR07, LKV00, PG07, RW00, RRG07, VDDP07, Zun09, Fal05, ZPK04]. **Applying** [Bra07, MN12, WG99]. **Appraisal** [KBT01]. **Approach** [AKH08, AS07, AP08, BFZ02, BLS06, BA01, BG13, BKV00, BIW09, CL08, CHM12, Chi11, Doh07, ERO99, FR11, GH13b, GHH14, HC08b, JGE06, Kan07, KCO09, KS09c, LGS06, LCYB06, Lud03, MZ14, Mey06a, Mir08, OMA09, PL11, PB12, PZ07, RP04, RB10, RS11, Sar00, SW01, Sit04, Tur99c, VL07, WGKM10, Wu15, Yse02a, Zab00, Zha00, ELOD11, LEB05]. **Approaches** [Dur11b, FS03, KW08, MSW⁺06, MNW08, OMSA14, Sch99a, THR⁺10, WGG06, GE09]. **Approximants** [FMP14]. **Approximate** [AB05, BD00, Fal07, Fas02, Reu98, TR07, vdESvG05]. **Approximating** [FY13, GZ08a, MMRD04]. **Approximation** [AL03, AS12, Ano08b, AES05, AO07, BCX13, BGK14, BGN05, BG12a, BP13, BZ12, CDFS14, Cod11, Dan03, Dis08, Dub11, DR06, Fas02, FHM05, GHJM07, GS11b, GR11a, GY12, GHI⁺14, Hac13, Hal07, HKL15, Isk04e, Joh04k, JT05, JT07, KT05a, KW04a, KWH00, KT08, LO12, OM08, PG11b, RMSB05, RL11b, Run05, Sch11a, SB99a, SB99b, SH03, SH11a, Tza99]. **Approximations** [ASFB99, AA08, AS09, Bal06, FGGZ11, GHM11, GP02, GE02, GP11, Joh04g, KEK14, LB00, MZ14, RMK11, Sü99, SR08, Sül99, XB05, YVC07, EK14]. **Approximators** [KP14]. **Aqueous** [KWKK04]. **Arbitrary** [APE05, BP13, FNSW05, FB07, GK11, Lui11]. **Architecture** [MAAB06]. **Architectures** [And00, FJ00, KAB13, LK12, MCB02, Swe06]. **Arguments** [BV08]. **Arising** [SK03]. **Arlequin** [PB12]. **Arm** [RJB03]. **Arnoldi** [BMS05a]. **ARPS** [XXM06]. **Arrays** [AA04]. **Art** [Gan08a]. **Arteries** [KHW15]. **Artificially** [BFL07]. **ASCII** [WG05]. **Aspect** [DKK09, VRMD00]. **Aspects** [DM00, FL00, Kre04, MCC09, Pes06]. **ASPIN** [MC05a]. **Assemblies** [Mez02]. **assembly** [LMW12b]. **Assess** [LMR11b]. **Assessing** [MNW⁺03]. **Assessment** [GS02a, JM12, TN07]. **Assignment** [ML04]. **Assimilation** [CDH06, HHS10]. **Associative** [GI08]. **ASTOS** [GWMW02]. **AstroBEAR** [PVC⁺05, VPC⁺05]. **Astronomical** [EE08]. **Astrophysical** [BKvOA05, Dor00, Hub06, PVC⁺05, VPC⁺05].

Astrophysics [Fry06, Nor05, SRR99]. **Asymptotic** [BR14a, CDLL11, CL08, CGL11, HKOS09, Rei13, Ver04]. **Asymptotic-Preserving** [BR14a]. **Asymptotics** [KBT01, KS09b]. **Asynchronous** [POD09]. **Atlantic** [LEB05]. **ATM** [TAA04]. **Atmospheres** [Dav06]. **Atmospheric** [Beh06a, Beh06l, JW11, LUN11, LJTN11, NLL11, SDKI08, Tay11, Thu11c, XXM06, Nik05]. **Atom** [FWGB02, SSA⁺14]. **Atomic** [PB12, Kys09]. **Atomic-to-Continuum** [PB12]. **Atomistic** [BHKV03, HM99, WLLY09]. **Augmented** [DH05b, LP09, LP11]. **August** [ADK⁺15, FLMS00, vRGH01]. **Australian** [ASW09]. **Auto** [GI08]. **Auto-Associative** [GI08]. **Automated** [LMW12a, Rog12]. **Automatic** [AKH08, AÅD12, BG08, BBH⁺08, BGK08, BCH⁺06, BC06, CL12a, CDH06, CL08, CC06, Chr12, CXX12, CD08b, EW08, FA12, GDRC02, GP08b, GPG08, HLM⁺03, HWB15, JM06, Kub06, Kub08, LH12, LK12, MN12, Neh12, OR12, ÖNG12, ÖB06, PFG08, PS08, PQD12, PBG08, PP12, Ral06, RU12, San08, Sch12, SM08, SWR08, Zao08]. **Auxiliary** [Che11, KV08, TXZ09]. **Average** [SSA⁺14]. **Averaged** [Joh04k, Joh04n]. **Averaging** [DM14, PB12, Sle11]. **Avoiding** [PBS⁺99]. **Aware** [DHK⁺00]. **Axi** [BMS05b]. **Axial** [BH08a]. **Axis** [Lou04, MBR11]. **Axisymmetric** [Des00, HF02]. **Axle** [Tsc99].

B [BAF03, LPK02]. **B-Matrix** [LPK02]. **Back** [Ano97, Ano98a, Ano99a, Ano99b, Ano00a, Ano00b, Ano01a, Ano01b, Ano02a, Ano02b, Ano02c, Ano02d, Ano02e, Ano03h, Ano03a, Ano03b, Ano03c, Ano03d, Ano03e, Ano03f, Ano03g, Ano04a, Ano04b, Ano04c, Ano04d, Ano05a, Ano05b, Ano05c, Ano05d, Ano05e, Ano06a, Ano06b, Ano06c, Ano06d, Ano06e, Ano07a, Ano08c, Ano08d, Ano08e, Ano08f, Ano08g, Ano08h, Ano09a, Ano09b, Ano09c, Ano09d, Ano10a, Ano10b, Ano11a, Ano11b, Ano11c, Ano11d, Ano12a, Ano12b, Ano12c, Ano12d, Ano13a, Ano13b, Ano13c, Ano13d, Ano13e, Ano14a]. **Background** [Ano05f]. **Backward** [BIK02]. **Backwards** [Wer06]. **BAIL** [CGL11, HKOS09]. **Balance** [MSS13, TD08, Tsa04]. **Balanced** [CP05, DVH01, GL05, JSH14, MS05c]. **Balancing** [Bar07a, BCT⁺04, CMEA11, DGS08, GS07a, GP02, HDA⁺04, HN05, KB07, KS07, KWW08, LT05, Ste07, TDF06]. **Ball** [ASW09, BC09a]. **Ballistic** [KK09a]. **Banach** [Bad08]. **Band** [BFM14, Bir14, KEK14, ZTJ09, EK14]. **Banff** [ERT12]. **Bank** [BN13]. **Barrier** [Sch09, SI99]. **Barriers** [WCJ06, MBM09]. **Bars** [BFSW99, BWH02]. **Baryon** [Liu05]. **Based** [ACS09, Ano08w, BFZ02, BBMU13, BQO05, BB06c, Boy11b, BZ07, BCKZ13, CLY⁺14, CMEA09, CD08b, Daw05, DH05b, Dra11, DR06, EW08, ER02, FS03, FGGZ11, FY13, GH08c, GMS11, Gás02, Gás11, Gje98, GACD05, GMCL14, HHR08, HEML00, Joh04g, KJ02, KL08, KGW99, KHD05, KT05b, Lam11, LM05, LGK07, LPK02, LP09, LP11, LLR11, LHC02, LO12, MSW⁺06, MDTC08, MAAB06, MAK⁺15, MC05b, MBR⁺07, OM08, PDH07, PP12, RR10, RY14, Run09a, Run09b, SCMR13, SDKI08, SCRK09, SW08, Le 09, The11, TLY02, TK02, TMPM02, WGKM10, WK10, WHHW11, WHH02, Woh01d, Woh01a, Woh01c, WKE06, Yab02, YZ11, YEÖ04, Zou11,

Zun08, BP07, CDM05, ED07, FK11a, GA09, GTS⁺11, HK08a, KHD07, SW06a, Sit04, TD11b]. **Bases** [CDFS14, Urb02c, Urb02d]. **Basic** [Beh06n, Dur11b, Joh04h, Lun04, Mey06a, Thu11b, Thu11c, Thu11d, Utk06]. **Basins** [KLS03]. **Basis** [BG98, BLR15, BC02b, Cai00, CHM11, EP11, Gás02, GHK⁺14, Isk04g, KP14, LMR11a, MDTC08, PZ13, RL11b, XB05, dBvZB10, Kir12]. **Basket** [GH13b]. **Bayesian** [ESS14]. **BDD** [PPEdD14]. **BDDC** [Bre08, DW13, LW07a, MS07, MSD08, PW11, SM11, Tu07, XL09]. **BDF** [Bär02]. **BE** [OS11]. **Beach** [SZ10]. **Beam** [BQGC15, LK02, TT12]. **Beamlets** [DH02]. **Beams** [PvR00]. **Bed** [GP08b, ZFB02]. **Behavior** [BWH02, CDLL11, DG09]. **Behaviour** [BKS11, GCC03, Hoo03, SSP⁺03]. **Belgium** [DRV00]. **BEM** [And08, GZS07, HM08, KGW99, MB01, SS02, SS01]. **Benchmark** [CV05a, GL10, Gra08a, KR05, VPRF11, Ros11]. **Benchmarking** [Gan08a, TH06, THR⁺10, THM⁺10, WP08]. **Benchmarks** [KGSW12]. **Berlin** [Bän03, DHL⁺99]. **Bernoulli** [KRSS06]. **Best** [Hal07]. **BETI** [BDS08, Of08, Pec13e]. **better** [TDV11]. **Between** [Bor05b, CL12a, DK11, LGS06, PV98, AHK07, DK09b, Kys09, TA07, TH06, VL07]. **Beyond** [Ber99a, GS08a, KSG⁺06]. **BGK** [IT09b]. **Bi** [Gás00]. **Bi-Helmholtz** [Gás00]. **Biased** [HMW02]. **Bibliography** [BC06]. **BICGSTAB** [PV98]. **Bidomain** [SP08, WPBV05]. **Bifurcating** [TB07]. **Bifurcation** [RLEM04, dNKS99]. **Biharmonic** [BGyS13, BMS15, Gás00, KW04b]. **Binary** [BDH⁺04, BED14, Dan03, MLB11]. **Binding** [AMW02, WLLY09, WLYL09]. **Biochips** [AGH⁺08]. **Bioelectric** [JMR⁺02]. **Biographies** [Ano09e]. **Biological** [Chi06, HÅ09, LC11]. **Biomechanics** [HT06]. **Biomolecular** [BBC06, BLS06, HBW⁺06, SRPD06, Sch99a]. **biomolecules** [Cle09]. **Biotechnology** [LKL13]. **Biplane** [KT09, KT11]. **Bipolar** [BM01, PBG08, PAR01]. **Bisection** [CNZ11]. **Bisphenol** [Abr04]. **Black** [Cho05, FSXZ14, PS03, LCD07]. **Black-Box** [PS03]. **Blades** [IWK⁺11]. **Blended** [HF02]. **Blitz** [Vel00]. **Block** [Che05, KKLD02, KFN11, KCO09, Krz09, Lam11, MH12, SSM08, SHH⁺01, TOG09a, GMM11, MSL03]. **Block-Parallel** [Che05]. **Block-Structured** [KKLD02, GMM11]. **Blocks** [Utk06]. **Blood** [BC11, BW09, FN02, HG09, PG11a]. **Blood-like** [PG11a]. **Blossoms** [Hal09]. **Blunt** [ACC09]. **bodies** [ZS09]. **Body** [ACC09, BHLR99, JKAG15, Lei99, PE09]. **Boltzmann** [ACC09, AC11, ABOGB99, BW09, BB06a, DLT14, GT08, GTK06, HSZ13a, KPR⁺06, LQW02, MLI07, MR03, MLB11, PL11, PF06, SV11, SKTR02, TPR09, TK11, ZFB02]. **Bond** [GHH14]. **Bone** [VAvA10, YML15]. **Book** [LMW12a]. **Bordeaux** [ABC⁺14]. **Born** [FWGB02]. **Bound** [JS14]. **Boundaries** [AT08, Buf03, HK10, PG09, RVD11]. **Boundary** [AT08, AAGP14, AB05, AES05, AQ14, Beb08b, BBMU13, Ber11, BIM05, Bon02, EGLS14, BT11, BGyS13, BIA14, BH03, CDLL11, CL11, CGL11, CLP09, DD03, DS11, DLT14, Fun97c, GH11, GS13a, GO14, Gro08, HD03, Hag03, Hal04, HKS06, HL07a, HH03, HKOS09, HF02, Hip03, HJHLP14,

Jun98, KFN11, KEK14, KS09b, KL15, LS05, LOSZ07, LT09, MJ11, MZ14, MT02, NR02a, PG07, PG11a, Pec13b, RL11a, RMSB05, RK05, Ste08, SW08, SW11, SS01, Svá09, TW03, UL14, VL07, Vul09, Yin09, iYN02, ZSS⁺15, ZAEK14, ZDZR15, dFO09b]. **Bounded** [MMN04, RL11a, TAA04]. **Bounds** [Bar13, Bre07, Dam08, GS08b, Kuz09, Mac00, NJ00, PDH08, PP03]. **Boussinesq** [Bär02, LPT12]. **Box** [GF12, PS03]. **brain** [WD09]. **Brains** [PB00]. **Breaking** [SZ10]. **Brenner** [Uri11]. **BRF** [WLP⁺06]. **Bridging** [LZ05, LPKF07]. **Brief** [HK08b]. **Brittle** [DS15b, Oht02, GHM15]. **Broad** [Dav06]. **Bubble** [GBS02, YVC07]. **Bubbles** [CM03a]. **Building** [FKAF11, TI09]. **Building-Cube** [FKAF11, TI09]. **Bunch** [HL99]. **Burgers** [WG99]. **Burner** [SP07]. **Bus** [BFSW99, BWH02]. **Butterfly** [Bil05].

C [BGK08, Bre12, HK06, KM12b, LW07b, LWH12, LMR11b, MLG08, PH08, WMA12, YT12b, YR05]. **C-NEM** [YR05]. **C/C** [WMA12]. **Ca** [Hak12]. **CAA** [GA09]. **Cache** [DHK⁺00]. **CAD** [KGW99, RB08, SCMR13]. **Cahn** [BGyS13, Wan13]. **Calcium** [NRWF08]. **Calculating** [BIW09, Dar06]. **Calculation** [AES05, CDWW01, Din02, GRvR03, HMW02, KKY00, KK09a, MR03, RGBvR01, SW01, TBP06]. **Calculations** [Bar07b, Chi06, Cho05, FGGZ11, GT11, GHH14, Hut04, KBT01, LBtM⁺01, LB02, MB01, MBM09, SG14, SO02, TMPM02, VDAH10, ZFB02, ZLY02, WLYL09]. **Calibration** [Kie12, Sch12]. **Call** [Nau08]. **Can** [BS02a, DG11, Fle05, GHM11]. **Canopies** [WLP⁺06]. **Canopy** [Gan06, WP08]. **Canyon** [Dur03]. **Carbon** [KWKK04, WLLY09]. **Carbons** [BH06]. **Cardiac** [CL06b, PF05]. **Carlo** [AR06, BD09, BDH⁺04, BMPC14, DM05, GKB06, Gen08, GH13a, HMW02, HvS12, Jo605, Kal12, LL00, Lip00, Liu00, MCB02, Mez02, MSS13, MB09b, NR14b, Pea05, PD03, SBMD06, dFJ05]. **Cars** [CVvSW99]. **Cartesian** [ASFB99, BBM06, BBGM10, IH07, KFN11, RSBE02, TIN⁺11, Yab02]. **Cartesian-Grid-Based** [Yab02]. **CasADi** [AÅD12]. **Cascadic** [ST00]. **Case** [Cas08, CD08b, ES14, GJMN05, GP08b, GL06, KS00, LN12, LMR11a, Med09, MSU01, Sch98, SO04, VM09, Kys09]. **Cases** [GL10]. **Casting** [AR02, PLL05]. **Catalysts** [WK10]. **Categorical** [AKO05]. **Cauchy** [CL12b]. **CAVE** [AK00, Kon00]. **Cavities** [AG99]. **Cavity** [BBC05, EKN15, YEÖ04, TK11]. **CDROM** [Tur99d]. **CE2014** [MBS15]. **Cell** [SCMR13, Gre00, Swa00]. **cells** [Cle09]. **CEM** [ZR11]. **Cement** [GJMN05]. **centrifugal** [LB11]. **Cerebral** [BW09]. **Cerebrospinal** [SHLLM12]. **Certain** [Dat04, DG08]. **Certification** [Tad08]. **Certified** [EP11]. **CFD** [ADDdS11, BWLA02, BFM⁺99, CCGL00, EKS99, EL0D11, GH08c, GMM11, GA09, GKS11, KPR⁺06, KiSO⁺11, LDHS13, LPSB09, LB11, Med09, MP05, NØ09, OMA09, Sah09, SKTR02, SUGL09, SAM⁺11, TD08, TD11b, VRMD00, YPAE09, ZFB02]. **CFD/** [GA09]. **CG** [BU13]. **Chain** [Abr04, Kal12, NR14b]. **Challenges** [Bän03, DHL⁺99, FLMS00, GDRT14b, HK08b, HLM⁺03, Laa08a, Mav11, SG02, Ste08, Ull14, Ull09, Van09a, Van09b, Bän03]. **Challenging** [RRG07]. **Channel** [CZC11, MCC09, TKH14, VV02, ZCC11]. **Chaos** [LDHS13].

Characteristic [FS13, FM11, Gri09b, SO04, SSH00]. **Characteristics** [BIK02, GR11a, KCO09, TT11]. **Characterization** [AMW02]. **Charge** [KSW02]. **Charged** [LL00]. **Chebyshev** [RMK11]. **Checkpointing** [SG06, WG99]. **Chemical** [CH00, KKLD02, KN11, KGSW12, LR11, TL06, ZFB02]. **Chemistry** [BGK⁺99, LSR06, Mei99, RMBR13]. **Chemomechanics** [Van09a, Van09b]. **Chicago** [PLW05]. **Chimera** [KP07a]. **chip** [HSMS11]. **Chiral** [Neu05, YLT05]. **Choice** [FK11b, SSP⁺03]. **Cholesky** [TR07]. **Choosing** [Ste05]. **CHORAL** [GRF01]. **Chromatography** [BWLA02]. **Chromodynamics** [FLMS00]. **Chronology** [Ano09f]. **CIP** [Yab02]. **Circuit** [Bar01, BGPR02, Bv01, DVH00, Den02, DFR01, Dul01, Fre05b, GH99, HK06, Mei01]. **Circuitry** [Klo01b, Klo01a]. **Circuits** [Bru11, MI01, NS01, NPLM01, PD99, SHH⁺01, Tis01]. **Circular** [BMS05b]. **Circulation** [JW11]. **Circumventing** [AC08]. **CISC** [Bän03]. **City** [KBH15, SG09]. **Clarke** [KB12]. **Class** [AG15, AA08, BCX13, BGM03, FLLA05, Joh04f]. **Classes** [BP04]. **Classical** [DG08, EG12b, HÅ09, NS99, NR99, SB99a, SB99b, vR01c]. **Classification** [FPR10, PFPB14]. **Claude** [Amm08]. **Cleaning** [Alt11]. **cleft** [Hak12]. **Climate** [JRG11, KK09b, KSGW00, Roo11]. **Close** [GHM11]. **Closure** [DPL13, Din02]. **Cloud** [KFMK05, PDB06, YML15, SVM11]. **Clouds** [Kas06]. **Cloudy** [Dav06]. **Cluster** [AR02, HJR06, HM06, KSG⁺06, LPSB09, Lud03, SO04, ZPK04]. **Clustering** [Mir08, NLC08]. **Clusters** [CP05, TPM02]. **Co** [DBK15, SU13]. **Co-simulations** [DBK15]. **Coalescence** [RJB03]. **Coarse** [ALK13, Bar07a, DF11, DKW08b, DC12, EG12a, FC11, Kal12, KLR14, Lam09, LT02, LL12, MS07, MS11, Sar02, Wid09b, PK04]. **Coarse-Grained** [ALK13]. **Coarse-Graining** [LL12]. **Coarse-Grid** [EG12a]. **Coarse-Scale** [DC12, Lam09]. **Coarsening** [EW05, Sch13a]. **Coating** [HWM99]. **Code** [BPV08, DPW⁺05, KPM99, MNO⁺05, PBS⁺99, WB12, ALM12, LPSB09]. **Codes** [CBG02, DBK15, LDHS13, Yak01, GA09, SAM⁺11]. **Coefficient** [BHOP14, GS08b, HK02, Lam11, LC11]. **Coefficient-Correction** [HK02]. **Coefficient-explicit** [GS08b]. **Coefficients** [AHZZ13, BNT11, BHJ07, tTBLvDP15, DP07, Dra11, DP05, DW07, DGS11, DS11, EGV11, GHK07, Hof02, Ken05, KW04k, KK09a, MZ14, Sch13b, VS07]. **Coherent** [Izv99]. **Collaboration** [Fuc00]. **Collapse** [KFMK05, MLCM06]. **Collected** [Gil08]. **Collection** [KR05]. **Collective** [FC11, HMW02]. **collisions** [MLB11]. **Collocation** [BNT11, Che02, DD03, ES14, FY13, GWZ14, JR13, SL14, UL14]. **Colloidal** [LL00]. **Coloring** [GP08b]. **Columnar** [CM09]. **Columns** [BWLA02]. **Combination** [BDH⁺04, GH14b, KPJ13, LKV00, WH14, YT12b]. **Combinatorial** [Kub08]. **Combined** [HMW02, TLL07]. **Combining** [MJ11, RU12, SR05a, YPAE09]. **Combustion** [Ant05, dNKS99]. **Command** [MYN⁺02]. **Commercial** [Yak01]. **Common** [KLRF12, MAAB06, Rie01, Neu03]. **Common-Mode** [Rie01].

Communication [PH12, TNG04, MR09]. **Communications** [POD09].
Community [MN12]. **Commutation** [Joh04n]. **Compact**
 [BS14a, GC15, GMCL14, NGD⁺15]. **Compact-WENO** [NGD⁺15].
Compactly [BC02b, Fas02]. **Comparative** [OSM11, Yak01]. **Comparison**
 [BNT11, BQGC15, CGLL05, HO03, HEML00, JW15, Lei99, Ler14, SGC07,
 THR⁺10, Kys09, VSLMN12]. **Comparisons** [PV98, Tur99f].
Compartmental [HC04]. **Compatible** [BZ07]. **compilation**
 [AM12, WMA12]. **Compiler** [NR06, Vel00, KL12a, LØRW12]. **Complement**
 [Ano08-33, BD00, BLSO09, GTD08, HKK05, KJ02, KW04a, Saa07].
Complementarity [YC11b]. **Complete**
 [Bon02, tTBLvDP15, Kha04, Nau08]. **Completions** [BP08]. **Complex**
 [ABFL00, BBB⁺13, BHKV03, BCDF06, LL09a, BvC02, Chi11, CA04,
 DDG⁺14, DEGL11a, EG08, EE08, FLLA05, Hel08, KLIM07, LL09b, LQW02,
 MHB07, MYN⁺02, MBS15, MI07, MK03, MT02, RGBvR01, SCMR13,
 SKTR02, SAG⁺06, TZ11, UWN⁺15, XXM06, ZTJ09, BLT⁺11, EVE04,
 KS09a, Van09a, Van09b, WLLY09]. **Complexes** [GS08a]. **Complexity**
 [GJ09, GR11b, Rei13, vdVvdV00]. **Complicated** [BFM⁺99, HP06, KS05].
Component [GI08, KZX08, MAAB06, SF08, CKB11]. **Components**
 [ABT99, EE08, FRXT99, KL11, Rei13, RSS99, Tur99g]. **Composite**
 [DS14, SS08, Wu15, vdM10]. **Composites** [BGN05, SC13]. **Comprehensive**
 [SG14]. **Compressed** [HLTT14]. **Compressible**
 [ASFB99, AYM11, BR00a, BR00b, BA14, DN07, DN08, DKK09, Kim07,
 Kuh02, LSL⁺00, LPK11, PDH07, PS14, YM09, YS11, Per11]. **Compression**
 [ACD02, HKS06]. **compressor** [LB11]. **Computable** [PO03].
Computation [AM09, ACC09, And00, AE12, BMN12, Bra02, CKS00b,
 CD03, DDJS99, GP08b, GC07, HSMS11, HSM02, Hip03, IT09a, IWK⁺11,
 Kan99, KCO09, Kub06, Kub08, NI11, NR14b, PP03, SA09, TI09, TIN⁺11,
 Vas00, Wal12, WGGC09, KS09a, MBG11, Per11]. **Computational**
 [ADD⁺03, Ano08i, BS02a, Beh06c, BH08a, BKP01, Bor05b, Bru03, CFH⁺03,
 CM12, CGL11, DL02, DWB13, Ede05, FKAF11, GSDP09, GD10, Gra08b,
 HRGD02, HKOS09, HSGI10, HVGC09, HO03, JW15, Jar02, KKM⁺14,
 KRW05, KR07, KV10, VL12, Lan99, LT03, Lan03a, LGS06, LBS⁺13, MBS15,
 Miy02, NHF09, Pet09, PvR01, Qui05, San02, Shu99, SDKI08, TDBEE11,
 TGEM09, Tur99c, Ull09, VSML12, VPRF11, WD09, YML15, YT12a, vR01g,
 vdVvdV00, BD99, BD03, BLMS13, ENS03, EdDB11, HVSC11, LOR09,
 Nar12, CFH⁺03, DHL⁺99, Gra06, SG02]. **Computations**
 [Amm08, AEKT09, ABM00a, ABM00b, BBC⁺14b, DMD99, ERO99, ERT12,
 Gay06, GMCL14, HL07b, IF02, KFN11, KiSO⁺11, LM11b, Mey06a, Mey06b,
 SKTR02, GMM11, Kys09, Wat09]. **Compute** [SV11]. **Computed** [SW15].
Computer [FLMS00, HHB04, KB03, KBS⁺99, KPM99, MCB02, SHK99,
 TMWT10, SACP09, Yip09]. **Computer-Aided** [KBS⁺99, SACP09, Yip09].
Computers [ABM00a, ABM00b, BGK⁺99, BT06, CL06b, CMEA11, CvG10,
 Dei05, ESD02, FL00, HNR99, LB02, SKTR02]. **Computes** [NJ00].
Computing [Art00, BBW13, Bän03, BDE⁺05, Bor00, BDZ02, BDZ99,

CAL03, CMEA09, CvG10, DH05a, DDKP02, FLMS00, HM06, HS06a, HLM⁺03, KT11, KSG⁺06, KMR13, KH14, KAB13, KD02, KM12b, LS99, LBQ00, MIL⁺11, MLD05, NR06, Neu03, RS06, SAM⁺11, SH11b, Tur00, YPA⁺11, vRGH01, MG09a, XCL11, Bän03, TGEM09]. **Concept** [GS08a, Wie05]. **Concepts** [Ano05g, BGK⁺99, MNW08, RSVV08]. **Conceptual** [PFG08]. **Concluding** [Sch03c]. **Conclusions** [Beh06b, Hol11h, Tur99a]. **Concrete** [RE02]. **Concurrent** [MO09]. **Condition** [EGLS14, GS11b, GS08b, Joh04j, LW07b, Pf00, RK05]. **conditioned** [IF02]. **Conditions** [AAGP14, AB05, AES05, AQ14, Ber11, Bli04, BGyS13, BIA14, CGHS11, CN04, Dub07, DLT14, FNSW05, Fun97c, GJMN05, GK11, GGN07, GH11, Gro08, Hag03, HH03, HF02, KFN11, KEK14, RL11a, RMSB05, SS01, TW03, UL14, Ull14, ZSS⁺15, ZAEK14, ZDZR15, Rog12]. **Conducting** [VDM⁺01]. **Conduction** [GW02, Mac00]. **Conductivity** [DEGL11b, MAK⁺15]. **Conference** [ADK⁺15, AHE13, Bän03, BDZ02, BDZ99, DRV00, EJHS00, HW98, HKOS09, HR11, KBH15]. **Configuration** [KT09, KT11, TOG09a]. **Configurations** [HSM02, SGP07, PE09]. **conformal** [VL07]. **conformation** [EVE04]. **Conformational** [EHH⁺99, HM99, TV99]. **Conformations** [FSDC02, GDRC02]. **Conforming** [BC02a, LSL05, MS05b, RH13]. **Conjugate** [CGPT05]. **Connecting** [HMW02]. **Connection** [LGS06]. **Connections** [CL12a]. **Cons** [JW11]. **Consecutive** [OK11]. **Consequences** [Ber11]. **Conservation** [ACD02, Bar00, Bar13, Beh06d, tTBLvDP15, CDM05, DPL13, EKS99, FS08, FLST00, GP11, HEML00, KOR99, LN15, LeF99, Mü103b, NS02, PDL11, Tay11, Thu11a, TSM14, Tza99, Vil05, Wir14, FS11]. **Conservative** [BPK11, GT08, GB15, OB00]. **Conserving** [Rya15]. **Considerations** [Rin11, YPA⁺11]. **Considered** [Joh04k]. **Consistency** [HK02]. **Consistently** [FMH02]. **Consolidation** [TWW12]. **Constant** [ABLS15, BOT02, TNG04]. **Constitutive** [Lud10]. **Constrained** [AHL09, ASS09, Bad08, BGHvBW03a, BGHvBW03b, FS03, GKW14, GGV15, GK09b, Kra08, Leu08, MH08, Sch11a, SZ09, ABG07, BG03]. **Constraint** [AAG11, Fal07]. **Constraints** [DAG15, GKW14, GK07, HKK14, Hop14, Kim07, KW02, KW05, KP07b, FK11a]. **constraints-based** [FK11a]. **Constructing** [KM12a]. **Construction** [AB05, CDH⁺00, Dei05, MY11, NR07, NDHS99, RS12, SCG09, Urb02e, Wag00, Kir12]. **Constructive** [ADL...14]. **Contact** [BHOP14, DM11, DVH⁺08, DKB⁺13, FK07, GSS14, HKK14, IS09, KS05, KHD05, KHD07, RSK11, SIR08, VDDP07]. **Containing** [Bar13]. **Contaminant** [DAC00]. **Contaminated** [SKvR01]. **Context** [HSGI10, KSS15, PJPG14, SM08]. **Context-Sensitive** [SM08]. **Continua** [DBLL15]. **Continued** [Wen05]. **Continuity** [GSF99]. **Continuous** [HEML00, JW15, MM11, PLL05, Sar00, She00, TL14]. **Continuum** [ATK10, BCM02, EL13, Lud10, MH15, PD03, PB12, Ta'00, WWAK04, HJD⁺12, PK04, WD09]. **Continuum-particle** [WWAK04]. **Contrast** [BZ12, EG11, EGV11]. **Contribution** [AAGP14]. **Control**

[AÅD12, Ann04, Ano05f, Ano08x, BM01, BGS06, BKV00, Boy11a, BT11, CL11, CVvSW99, EKKvS99, FV14, GKW14, GQ11, GMSS08, GS13a, GGV15, HN05, HR08, HV05, KTB03, KFD07, Kie12, Leu08, LGCD04, LT09, LK02, MS99, MMRD04, MH03, NR14a, RP04, RWS08, Sah09, SSM08, SU13, SG06, TAA04, The11, YEÖ04]. **Controllability** [CGPT05, Pue14]. **Controlled** [GHHL14, WL05]. **Controller** [Var05]. **Controlling** [VNW02]. **Convection** [AS09, BG98, BS14a, Bau11, BHJ07, BR14a, CSX05, Coc99, Cod11, DFR14, FBHK15, FMH02, FM11, GR11a, GO11, GE02, Hal07, Hof02, JS09, KUM15, Kno09, Le 05, NI02, OB00, OGWW98, PDH08, RY14, Shi11, TS02, Tob09, TGSS09, UL14, ÜG09, Wag00, VCR12, XCL11]. **Convection-Diffusion** [AS09, BG98, BS14a, BR14a, Cod11, DFR14, FBHK15, FMH02, FM11, GR11a, OB00, RY14, Shi11, Tob09, BHJ07, Hal07]. **Convection-Diffusion-Reaction** [Bau11, Hof02, JS09, Kno09, PDH08, Wag00]. **Convection-Dominated** [Coc99, Le 05, OGWW98]. **Convective** [MG05]. **Converge** [DG08]. **Convergence** [Bal05, BKS11, BA11, Bog11, Boy11b, BSS14, Dit15, DG09, FKAF11, GV07, GH08a, GFS06, Gje98, GH14b, IS09, LT02, Leu08, Lin00, LS09b, Mon03, OWWG00, POB13, SSWW14, SRSK15, Yse02b]. **Convergent** [AZ11, BP13, CG11, DHU00, GEF05]. **Convex** [Alb99, Bar00, BBDS14, GSS09, GK09b, HKK14, MT02, WH14]. **Cooling** [BS05]. **Coordinate** [LPK02]. **Coordinates** [Akk06, GB15]. **Coping** [BV08, GR11b]. **CORBA** [GP00b, GP00a]. **Core** [MLCM06, Rin11, Roo11, CMEA11]. **Cores** [KFMK05, Thu11a, Thu11c, VDM⁺01]. **Corner** [FK11b]. **Corners** [BP03]. **Corrected** [HHR⁺15, RH13, ZPK04]. **Correction** [Ant05, AP08, DL02, GP03, Gje98, GTD09, HK02, HKX08, KKZ13, MAM07]. **Corrector** [PLL05]. **Correlations** [Dav06, SSA⁺14]. **Corresponding** [BIW09]. **Cosmology** [Bor05a, Nor05, OBB⁺05]. **Cost** [BG12b, NR14a, LPSB09]. **Couette** [HLL11]. **Coulomb** [KHD05, KHD07]. **Coupled** [AR02, AP08, BC09b, BLHJ⁺99, BUM⁺15, BU13, CH00, CvG10, DMD99, EIL08, GRvR03, Kal12, KGW99, LS05, Lan97a, Lan03b, LM03b, MH15, MBS15, MSU01, OS11, ODCK07, RGBvR01, TT12, Hak12]. **Coupling** [BF02, BHJ07, BGH02, EGLS14, BBM06, CV00, Dis05, Dul01, FK08, FMH02, FSDC02, GS07a, HM08, HIRW05, JL05, KR09, KKJ⁺01, LCYB06, MKZS06, MI01, PB12, Sar00, SFMF05, TD08, TK11, VC05, Vie06]. **Couplings** [VL07]. **Cousin** [FZ07]. **Cover** [TA05, TLY02]. **CPUs** [VPRF11]. **Crack** [BVX02, CH00, Kam02, Miy02, MTM05, Tad04, iYN02, BAG04]. **Cracks** [LSZ14, MTM05]. **Crash** [TKG⁺00]. **Crestone** [WG05]. **Criteria** [LR11, Tis01]. **Criterion** [Tad04]. **Criticality** [HC00]. **Crop** [LH12]. **Cross** [ABLS15]. **Crouzeix** [RXH05, RX07]. **Cruise** [WS02]. **Crystal** [DDKP02, Izv99, KPM99, MR03, SKD02]. **Crystals** [BFM14, CLS12, GLK03, VNW02, VW03]. **CrysVUN** [KPM99]. **Cube** [FKAF11, TI09]. **Cubic** [GS08a]. **Cumulant** [SHM06]. **curl**

[DW13, KV08, Urb02d, WSZ11, XZ11]. **Current**
 [BP03, BKP01, Cai00, HK08b, Hip03, KKJ⁺01, RFV03, Rod13, SS01, Tur99e].
Currents [BP03]. **Curse** [AC08]. **Curvature** [ZCC11]. **Curved**
 [Cai00, PG11b, TLL07, TD11a]. **Curves** [BR11a]. **Curvilinear**
 [BH15, BPK11, GB15]. **CUTEr** [BG12b]. **Cuts** [JSH14]. **Cyberspace**
 [Bro00]. **Cycle** [LBtM⁺01, TV99]. **Cyclic** [GTD09, Bv01, Reu98]. **Cylinder**
 [MLI07]. **Czochralski** [ESBD02, VNW02, Wag99].

D [CHM11, LPH00, ASB⁺06, BHOP14, BP03, BMR03, BSS14, CNZ11, CG11, DW13, DS14, EGZ99, FdlPFC15, FLTD09, GZS07, GFS06, GA09, GTS⁺11, GPG08, Gro11, HH14c, HKN98, IT09a, IT09b, JS09, KKLD02, KKY00, KRW05, KR07, KR08, KHD05, KHD07, LDHS13, Le 07, Leu08, LS00, LB11, MR02, MZ14, MG09a, MPLT00, PDB06, PKKS11, PMSK00, RIM05, RP08, SUGL09, SAB⁺06, SG09, ÜG09, WGKM10, WL14, WHHS13, WLP⁺06, WO00, XCL11, iYN02, ZS09]. **D-Multibody** [KHD05]. **DAE**
 [EW08, GTD08, GTD09]. **DAE-systems** [EW08]. **DAE/** [GTD08]. **DAEs**
 [Klo01b, Klo01a, MLG08]. **DAGs** [CMLU12]. **Damage** [DS15b]. **Damaged**
 [PBG08]. **Damped** [DMD99]. **Damping** [SKR04]. **Darcy**
 [GS11a, Dis05, FLTD09, GS07a]. **Darwin** [Gor11]. **Dased** [LGCD04]. **Data**
 [Ano05h, Beh06a, Beh06c, BBB⁺13, BS14b, CDH06, EE08, EP08, ES14, EHL13, Gás00, GZ08a, GKWZ08, GR11b, GHI⁺14, GWZ14, Gus00b, Gus00c, HAP06, HHS10, HP06, HC00, Isk04a, Isk04f, JSH14, JT08, KW04a, MY11, MAK⁺15, Mey06a, Mü03c, NPS02, PH12, PBF08, Rie11, SS11, Was11, WB12].
Data-Flow [HAP06, PH12]. **Data-sparse** [KW04a]. **Datasets** [FK02].
Davidson [WHHW11]. **DD** [Mey06a]. **DDMs** [CTD05]. **DDT** [NÖU09].
December [EJHS00]. **Decentralized** [ACS09]. **Decipher** [GZ08b].
Decomposed [GKB06, ODCK07]. **Decomposition**
 [AS07, AKM⁺09, ABG07, AC08, Ano08j, Ano08t, AS09, APJ09, BBC05, Ban07, BN11, Bar07a, BGKW09, Ber09, BBTD05, BIW09, Bre07, Cai03, CLZ08, Cai09, CP05, CGP08, CL05b, CDNQ13, CLP09, CKL11, CGG08, DLP02, DDFQ07, DKW08a, DNR08, DN08, DNR09, DEGL11a, DKB⁺13, DGS08, EG11, EGH⁺14, EIL08, FZ07, FS03, FSS06, FL00, GS07a, GH08b, Gan08b, GK11, GL07a, Gar08, GGN07, GHW08, GL07b, HH14c, HR08, HDY05, HF02, Hie05, HV05, HJHLP14, HIRW05, HL07c, HKWX11, IAD09, IS09, KTC07, KL08, Kim08, KLP14, KB07, KS07, KWW08, KLRR14, KS11, KKNR05, KR08, KHP⁺05, Krz05, KHD05, KT05b, KW08, Kuz08, Kuz09, Laa08b, LDK⁺08, LT02, LP09, LP11, Leu08, LC11, Loi07, LMR11a, LKR05, MJ11, Mat08a, MNW08, MC05b, NR07, OM99]. **Decomposition**
 [PT02, PS11, PD11, PTD11, PJ07, RSK11, RRG07, RV02, Rod13, SIR08, Ste08, SW08, SW11, SMT08, Le 09, TKH14, VDDP07, VL07, WGF⁺03, WHHS13, WK07, Wid09a, Wid09b, Woh01d, Woh01a, Woh01c, YC11b, ZC11, Ban13, LGK07]. **Decomposition/Nash** [CGP08]. **Decompositions**
 [HK08a, Hol11b, WW98, Yse13, dDZ14]. **Decoupling** [PTD11, RL05].
Dedicated [Amm08]. **Deep** [BBC05]. **Defect**

[Ant05, DL02, Gje98, MAM07]. **Defects** [VNW02, VW03, dK09a]. **Deferred** [GTD09]. **Defined** [HMW02]. **Definite** [Reu00, XL09]. **Definition** [BB06b]. **Definitions** [Dul01]. **Deflagration** [NÖU09]. **Deflagration-to-Detonation** [NÖU09]. **Deformable** [RSS99]. **Deformation** [FP15, GWTW12, Tad04, WGG06, dBvZB10]. **Deformations** [CZC11, KBG06]. **Deforming** [FP15]. **Degenerate** [VS11]. **Degrees** [MS07]. **Dehydration** [TV99]. **Delaunay** [CCT02]. **Delay** [BZ04, BCT⁺04, Bli04, BP04, Dat04, FS04, HC04, HDA⁺04, LGCD04, Lun04, MMRD04, ML04, NG04, RP04, RDD04, RLEM04, TAA04, VG05, Ver04, YEÖ04]. **Delay-Based** [YEÖ04]. **Delay-Independent** [Bli04]. **Delayed** [MMN04]. **Delays** [BDOR04, TNG04]. **Delivery** [LKL13]. **Delta** [TOG09b]. **Delta-Wing** [TOG09b]. **Dendrite** [RJB03]. **Dendrites** [And00]. **Dendritic** [EK02]. **Dense** [BMPC14, GDRT14b, HR14, LBR14, SSA⁺14, WWAK04]. **Density** [BGK⁺99, Cas08, Con03, For14, Hut04, JM12, KSC⁺14, KRSS06, Liu05, LHC02, PFPB14, PJPGB14, SKvR01, Sit04, TB07, Ull14, WDP⁺12, ZPK04]. **Density-Functional** [Ull14]. **Dependence** [MY11]. **Dependent** [APJ09, BHOP14, CM11, EKS99, Fis15, GFS06, HO14, HW02, JS09, Jol03, KS98, Kwo14, Lam11, LKV00, MAM07, NL05, RWS08, RDD04, Sch98, SAG⁺06, SG06, Swe06, Ull14, WDP⁺12, ZDZR15, AES05, HHR08, WLLY09]. **Depending** [SRSK15]. **Deposition** [EGZ99, KKLD02]. **depositional** [Sch12]. **Derivation** [Tur99b]. **Derivative** [BB06b, BG12b, CHM12, DBZ15, DFR14, Gil08, TBP06]. **Derivatives** [CD08a, FA12, JT05, KM12b, SNT03a, SNT03b]. **Deriving** [Che11]. **Description** [oCPiPDSKN03]. **Descriptor** [MS05c]. **Design** [And08, BKP01, DP09, DKP00, FJY06, FS04, GSS14, GTD08, HH00, JM08, Löw09, PFG08, Rin11, SS05a, SM08, Thu11c, Tis01, Tsc99, Tsc02, WK10, YHM⁺03, Zab00, Zum00b, MO09, SACP09, Yip09]. **Designing** [KAB13, PD00]. **Desirable** [LUN11]. **Details** [Sch03h]. **Detecting** [BH08a, Wir14]. **Detection** [CV00]. **Determinant** [Bor05b, Bor05c, CG15, Liu00]. **Determination** [CXX12, KFJ07, MLG08]. **Determining** [CJS00, Dat04]. **Deterministic** [BCT⁺04, Clo06, GCC03, JV07, KS09c, Hak12]. **Detonation** [NÖU09, NGD⁺15]. **Developing** [KKS06, SE03]. **Development** [AIMY11, CKS00a, GCC03, HK06, Le 07, OT09, Roo11, TBK13, TDBEE11, VGK08, Wid09b, WHH02, XXM06]. **Developments** [BD98, KOR99, KZX08, Mon02, Nat07, OHW07, PT02]. **Device** [BM01, CS03a, GSF99, HK06, Mei01, YML15]. **Device/Circuit** [BM01]. **Devices** [Alb99, DGH⁺99, MI01, LKL13]. **DG** [EGLS14, DGS11, EDG⁺14, OMS11b, RS11, WL14]. **DG-SEM** [RS11]. **DG-Solver** [WL14]. **DGFEM** [FBHK15, SSWW14, SSH00]. **DGM** [OB00]. **DGTD** [DFE11]. **Diagnostics** [KBS⁺99]. **Diagonal** [SSM08]. **Diagrams** [Güs00a]. **Diamant** [CL08]. **Diatomic** [ACC09]. **Dielectric** [CLS12, KL15]. **Difference** [ABV15, BA14, CG11, DMBS06, Dit15, EM15, GC15, KFD07,

MO11, NGD⁺15, OM08, SAG⁺06, SS11, SBMD06, TT12, VM09, ZDZR15].
Differences [FdIPFC15, ZSS⁺15]. **Different**
 [BGPR02, CBG02, Fom03, SAB⁺06, THR⁺10]. **Differentiability** [LSZ14].
Differentiable [KB12]. **Differential**
 [Abd12, ADL...14, AHE13, Bal05, Beh06k, BZ04, Bos01, BT06, BD98,
 DHW02, EP11, ENOD99, FY13, GH07, GS02b, GS05, GS07b, GS08d, GS11c,
 GS13b, GS14, GWZ14, HPS13, HR11, Hoo03, KW04j, Laa08b, LT03, LO03,
 Ler14, LP03, LMW12a, MDTC08, Mat08a, MAM07, Olv11, RDD⁺14,
 RLEM04, Sch03g, SSH00, TDF06, KBH15, Lan99, Lan03a]. **Differentiation**
 [AKH08, AÄD12, BG08, BB08, BBH⁺08, BGK08, BCH⁺06, BC06, CL12a,
 CDH06, CL08, Chr12, CXX12, CD08b, FA12, FHP⁺12, Gay06, GP08b, Gil08,
 GPG08, GF03, HLM⁺03, HWB15, JM06, Kub06, Kub08, LH12, LK12, LN12,
 MN12, MH08, MLG08, Neh12, OR12, ÖNG12, ÖB06, PFG08, PS08, PQD12,
 PBG08, PP12, Ral06, RU12, San08, SM08, SWR08, TF06, Wer06, YT12a,
 Zao08]. **Differing** [SM09]. **Difficult** [EG12b]. **Difficulties** [AR99]. **Diffpack**
 [Lan99, LT03, Lan03a, LM03a]. **Diffraction** [MT02]. **Diffuse** [Sch03b].
Diffuser [WL05]. **Diffusing** [KSM03]. **Diffusion**
 [ABLS15, AS09, APJ09, BG98, BS14a, Bau11, BLR15, BR14a, BC02b,
 CGHS11, CGDV07, CM11, CGL09, CG11, Cod11, CGG08, Dam08, DDG11,
 Dub07, DFR14, DM05, EF00, FBHK15, FMH02, FM11, FR11, Fun97g,
 GHJM07, GHK07, GR11a, GO11, Gra08a, GH13b, GKKS07, Hof02, JW11,
 JS09, KUM15, KTB03, Kie12, Kno09, Kuz05, Kuz08, LKR05, LT09, NLC08,
 OB00, PDH08, PF05, RL05, RY14, Shi11, SS11, SW06b, SM09, Tob09,
 Wag00, Zun03, dFO09a, dFO09b, BHJ07, Hal07, MBM09].
Diffusion-Convection-Reaction [KUM15]. **Diffusion-limited** [GKKS07].
Diffusive [Bal06]. **Diffusivity** [HR14]. **Digital** [OMS11b]. **Dilemma**
 [KW08]. **Dilute** [Dan03, KS09c]. **Dimension** [BMS05a, Bos01, GH13a,
 GKWZ08, GO14, Hol11a, Hol11b, Hol11c, JR13, Rei13, BMS05c].
Dimension- [GH13a]. **Dimension-Adaptive** [GO14]. **Dimension-wise**
 [Hol11b, Hol11c]. **Dimensional**
 [AYM11, AIMY11, ASS09, BD09, BBB⁺13, CM03a, DDS07, EHL13, FS08,
 FN02, GKEK10, HS08, HSZ13b, Jun98, JV07, KKM⁺14, Kan99, KB03, LL05,
 Oht02, RU12, RS11, YM09, YKI09, Daw05, Gri09b, KL05, KT08, Laa08b].
Dimensionality [AC08, EP08, MY11]. **Dimensions**
 [BS02b, BGN05, Cho05, Hie05, Hol11g, KRU14, KW05, KRP08, LP11,
 Mar07, MS05b, MC05b, SMT08, Sch11b]. **Diodes** [KSW02]. **Dirac**
 [HJL00, Neu00, Wen05]. **Direct**
 [ADD⁺03, BD09, CGP08, DKP00, ESBD02, Gar08, GBS02, HKK05, KK09a,
 Kys09, MB09b, ÖD09b, Wag99, BLT⁺11, CH03, KJ02]. **Direct/** [KJ02].
Directed [BH08a, CXX12]. **Direction** [KP14, MT05]. **Directional**
 [BRP03, BAF03]. **Dirichlet** [BKS07, BKS11, CGLL05, FMP14, GS11b,
 HL07a, HF02, KT05a, RL11a, TW03]. **Dirichlet-to** [KT05a]. **Discharges**
 [KBS⁺99]. **Disconnected** [Güs00a]. **Discontinuities** [Bar13, FB07, NW12].
Discontinuity [BVX02]. **Discontinuous**

[AH05, AB00, Alt11, AA08, AS09, ABCM00, AA00, AZ11, Bar00, BR00a, BR00b, BBC⁺14a, BBC⁺14b, Bas03, BGM14, BBH⁺15, BHJ07, BVB00, tTBLvDP15, BR11b, CH00, Cas00, Coc99, CKS00a, CKS00b, Cou00, DAC00, DLM14, Des00, DLZ08, DP07, DP05, DW07, DGS08, DGS11, DS14, EF00, FCH⁺14, FLST00, FBHL00, FP15, GHK07, GWC11, HFHK15, HJ08, HJS11a, HP09, HLS00, HEML00, JW15, JT05, Jun15, KK00, KUM15, KWH00, KT08, Krz05, Kuc15, KRT07, LN15, LB00, LS00, LKK00, LM00, NPC11, NDBG14, OHW07, PMSK00, RHH00, RW00, RZ03, Sar00, SK00, Sch13b, She00, SS11, TD11a, War00, XB05, YAS⁺00, Zun08, Zun09, dDZ14, vdVvdV00].

Discovery [SCG09]. **Discrepancy** [Dam08]. **Discrete** [Ano08b, BGN05, BIM05, DBK15, GH14a, How05, KS00, KW04b, Kic98a, Kic98b, KKL⁺12, KEK14, Mor06, PPEdD14, SC08, Wei03, ZAEK14, ZDZR15, Fis15, WD09].

Discrete-Ordinates [Mor06]. **Discretisation** [HD03, Joh04a].

Discretisations [Joh04b]. **Discretization**

[AHK07, AMQR14, AZ11, AHZZ13, BM02a, Bär02, BQGC15, Beh06d, BHJ07, Dao07, DG11, DW02, DP05, DGS08, DGS11, DT15, Dur11b, EDG⁺14, FB13, FBAC11, Fun97h, GQ11, Gre00, KS02b, Lan97e, Lan03f, Mar07, MD08, Mon03, Mü103g, SK03, Swa00, THR⁺10, VV02, Woh01d, Woh01a, Zum00b, BD03].

Discretizations [Ano08a, Ano08-28, BT11, Cod11, DM00, EM12, Got15, HK10, Kim08, KR08, LUN11, Löw09, OHW07, OGW98, PW11, SWR08, Thu11b, Thu11d, WG99, WSZ11]. **Discretized** [BS05]. **Discussion**

[Ano06-29]. **Disguise** [Kwo11]. **Disordered** [Voj06]. **Dispersion**

[MM11, SZ15, She00, ZFB02, ZPK04, MBG11]. **Displacements** [VDDP07].

Displays [Fuc00]. **Disposal** [BBTD05]. **Dissection** [GHH14]. **Dissipation**

[PDH07, PS07]. **Dissipative** [CA04]. **Dissipativity** [HC04]. **Distance**

[AQ14, Dam08]. **Distinct** [MGB02]. **Distributed**

[AKM⁺09, And00, BHM⁺00, BFSW99, CP05, Dei05, GP00b, GP00a, Kes00, KKNR05, KSGW00, LG11, LT09, MMRD04, OK11, Saa07, SRPD06, Wie05].

Distribution [AC05, GTD09, Klo01b, Klo01a, SG09]. **Disturbed** [PD99].

div [Urb02d]. **Divergence** [Alt11, LL05, Löw09]. **Divergence-Free** [LL05].

DNA [AA04]. **DNS**

[BBH⁺15, BLT⁺11, GTS⁺11, KiSO⁺11, SGC07, TGSS09]. **Do** [Jun02].

Docking [San02]. **DOE** [WG05]. **Does** [Ste05]. **DOLFIN** [LWH12].

Domain

[AS07, ABG07, Ano08l, Ano08t, AS09, APJ09, BYJ08, BBC05, Ban07, BN11, Ban13, Bar07a, BGKW09, Ber09, Bor05b, BBTD05, BIW09, Bre07, Cai03, CLZ08, Cai09, CP05, CGPT05, CGP08, CM12, CL05b, CDNQ13, CLP09, CKL11, CGG08, DD03, DLP02, DDFQ07, DKW08a, DNR08, DN08, DNR09, DEGL11a, DFF11, DKB⁺13, DGS08, EG11, EGH⁺14, EIL08, FZ07, FSS06, GS07a, GH08b, Gan08b, GL07a, Gar08, GKB06, GGN07, GHW08, GH11, GL07b, GTD08, HH14c, HR08, HDY05, HF02, Hie05, HJHLP14, HIRW05, HL07c, HKWX11, IAD09, IS09, KTC07, KL08, Kim08, KLP14, KB07, KS07, KWW08, KLRR14, KS11, KKNR05, KR08, KHP⁺05, Krz05, KHD05, KT05b, KW08, Kuz08, Kuz09, Laa08b, LDK⁺08, LT02, LGK07, LP09, LP11, Leu08,

LC11, Loi07, LKR05, MJ11, Mat08a]. **Domain**
 [MNW08, MC05b, NR07, ODCK07, PT02, PS11, PJ07, RSK11, RY14,
 RRG07, RV02, Rod13, SIR08, SW01, Ste08, SW08, SW11, SMT08, Le 09,
 TKH14, VDDP07, VL07, WHHS13, WK07, Wid09a, Wid09b, Woh01d,
 Woh01a, Woh01c, XCL11, YC11b, LCD07]. **Domain-Based** [RY14].
Domain-decomposed [ODCK07]. **Domain-decomposition** [LGK07].
Domains
 [AT08, AKM⁺09, BPK11, DEGL11a, EG08, FP15, HMW02, Jun98, KR09,
 Leu08, LSZ14, LKK00, Lui11, Pec13g, RFV03, SSWW14, CD03, Sch11b].
Dominant [HS06b]. **Dominated**
 [CSX05, Coc99, DPW⁺05, Fun97f, Le 05, MGB09, OGWW98]. **Dot**
 [WHHW11]. **Dots** [SHB14, TV14]. **DP**
 [Bre08, DDS07, DP07, DHS07, DW02, DP05, DS14, GS11a, KL05, Kim07,
 KL11, KR07, KRP08, KLR⁺15, MS07, MD08, PW11, Ste05, SMGR07, TL14].
DP-RBS-LNA [SMGR07]. **DPD** [RP02]. **Drag** [SGT09]. **Drift** [FR11].
Drift-Filtered [FR11]. **Drive** [BMS05b, Klo01b, Klo01a]. **Driven**
 [AM09, PBS⁺99]. **Drives** [CVvSW99]. **Droplet**
 [TD08, Gro11, MLB11, Wat09]. **DSMC** [KCO09, SE09]. **Dual** [Abr04,
 Dul01, FA12, KT09, KT11, KW02, KW05, KRW05, KRW07, LW05, Pec13a].
Dual-Primal [KW02, KW05, KRW05, Pec13a, KRW07]. **Duality** [LM05].
duct [HLLL11]. **due** [TDV11]. **Dunes** [HS03]. **Durham** [BJ12]. **during**
 [Her03]. **dyadic** [Hak12]. **Dynamic**
 [BG08, BBDS14, BCT⁺04, CMEA11, HDA⁺04, Hof02, Jac14, LT05, MTM05,
 ÖB06, TDF06, TS15, VCR12, WO07, WB12]. **Dynamical**
 [AMW02, BMS05a, CV05a, For14, Fre05a, HC04, HV05, Izv99, LSLK05,
 MK03, PTD11, Rin11, Roo11, Roy01, SFMF05, Thu11a, Thu11c].
Dynamically [APE05, SS07b]. **Dynamics**
 [ASFB99, ALK13, BLR02, Ber99a, Ber99b, BDH⁺04, BAF03, CO13, CGP08,
 CA04, DB12, DDJS99, DHL⁺99, DK07, DWB13, EHH⁺99, FC11, FKAF11,
 GD10, Gra14, Her03, HL07b, HL99, ISI⁺99, JG99, KLY04, LPK02, Lub14,
 Lud10, Mei99, Mel09, NRWF08, NS99, NR99, ÖD09a, OM99, Per99, Pet09,
 SR05a, SB99a, SB99b, SZ15, SHM06, Shu99, SDKI08, SRR99, Ta'00, TF06,
 Thu11c, TKH14, Tor05, TDBEE11, TGEM09, BD03, BLMS13, EVE04,
 ENS03, FBC05, Hak12, HVSC11].

Earth [TS02, VCR12]. **Earthquake** [SDKI08]. **Eddy**
 [AHK07, ABFL00, BP03, BFL07, BA14, CGDV07, HPP07, Hip03, Joh04f,
 KT07a, KT07b, KLIM07, KFJ07, LSL⁺00, MHB07, MNP07, MI07, MB10,
 PDH07, PS07, RFV03, Rod13, RL11a, SGP07, SS01, vdHB10].
Eddy-Current [RFV03]. **Eddy-Resolving** [MB10]. **Eddy-Viscosity**
 [KT07a, KT07b]. **Edge** [CXX12, Dem01, Ger11, Mon03]. **Edges** [Wir14].
Edinburgh [BFJ⁺05]. **Effect**
 [BBC⁺14b, BGM14, HDA⁺04, HLS00, KK09a, MMRD04, NSS09]. **Effective**
 [DF11, Dav06, KEK14, NI11, YLT05, EK14]. **Effects**

[Abr04, Con03, GWC11, KLIM07, MI07]. **Efficiency**
 [Beh06c, CXX12, DZ05, FK07, HEML00, SKTR02, SDP98, GKS11, Zie05].
Efficient
 [BS02b, BHM+00, Boy11a, BFM+99, BPJ14, CL08, CD08a, DHK+14, DS15a, Din02, EHL13, Gay06, GH13b, GHH14, Jac14, KG06, LSL+00, MNW08, MAK+15, Mey06b, NS01, NPS02, OR12, PG09, PS08, PD99, PP12, San02, SSBP10, SK03, SVM11, SBMD06, Tur99c, Wal12, WSZ11, YT12b, PE09].
Efficiently [Beb08b]. **EFG** [BVX02]. **EFGM** [MN05]. **Eigenbasis** [LB02].
Eigenfunctions [LB02]. **Eigenmodes** [GRvR03, RGBvR01]. **Eigenpairs** [KH14]. **Eigenproblems** [JSH14]. **Eigensolver** [LAOK07, WHHW11].
Eigenspace [HL07b]. **Eigenstructure** [ML04]. **Eigenvalue**
 [AS12, Ano05f, Ano08k, AG99, BG12a, BMS15, Dra11, GLYB07, GW02, Kre05b, Lou04]. **Eigenvalues** [HS06b, Kuz09, Lou04]. **Elastic**
 [AMQR14, CW05, GZS07, GSS14, GS08a, GZ08a, Miy02, PG09, TLO03, TH06]. **Elastic-Plastic** [Miy02]. **Elasticity**
 [BIA14, DM11, FW07, FP15, GP02, HFHK15, KKZ13, Kim07, KW05, KRW07, KR07, LB05, PW11, Ste15, Nar12]. **Elastodynamic**
 [Bon02, YAS+00]. **Elastodynamics** [Bar07a, Fal05]. **Elastoplastic** [KBG06].
Elastostatic [iYN02]. **Elastostatics** [BS02b]. **Electric**
 [BGPR02, DEGL11b, Dul01, MI01, SKvR01, ZSS+15]. **Electrical**
 [GRF01, SLG03, Zao08, vR01b, vRGH01]. **Electrically** [BBC05]. **Electro**
 [Klo01b, Klo01a]. **Electro-Mechanical** [Klo01b, Klo01a].
Electrocardiography [MR00]. **Electrochemical** [VI09]. **Electrodynamics**
 [vR01c, vR01g]. **Electrokinetic** [LKL13]. **Electromagnetic**
 [AG99, BWH02, BMR03, BH03, Cai00, Che08, CM03b, DEGL11a, Eng00, GWC11, Gro08, HL07c, KBT01, Kik02, LD12, LK02, MSU01, MI01, NPLM01, NL05, RB10, RGBvR01, VL07, dRLT08]. **Electromagnetics**
 [Amm08, Bru03, CFH+03, DFF11, Ede05, PvR01]. **Electromagnetism**
 [Ber11, BKP01, CM12, Wei03]. **Electromagnets** [Luk01].
Electromechanical [HR10, HH01, KR00, KGW99]. **Electron**
 [LK02, Pek03, PvR00]. **Electronic**
 [CL05b, CRS06, FGGZ11, GHH14, OMSA14, SHB14, SG14, Yse13].
Electronics [BGH02]. **Electrophysiology** [CL06b]. **Electrostatics**
 [BBC06, SRPD06, San02]. **Electrothermomechanical** [BGH02, HIRW05].
Element [AB00, AAG11, Ano08a, BB02, Ban05, BP14, Bar05, BS02b, BBH+15, BCL15, BC02a, BPK11, BT11, BMR03, BH03, CFH+07, CSX05, Che08, CHM11, CH11, Cod11, CLP09, CKL11, DVH01, DBK15, DPR08, DW07, DS14, DB08, Dul01, DR06, EGV11, Fai02, Fal00, FR00, FGGZ11, FY13, FL05, Fun97e, GJMN05, GQ11, GD10, Ger11, GHL+07, GACD05, HH06, HP06, Hen99, HH01, HDY05, Hip03, HJ03, HSZ13a, HHR+15, HWYY11, HKL15, JE11, Joh04b, JS09, KN02, KB12, KW04d, KS02b, KWH00, KL15, Kuz05, LS05, LOSZ07, Lan97e, Lan97g, Lan03f, Lan03h, LM03b, LSL05, LZ05, LKL13, LMW12a, LMR11a, LMR11b, Mac00, MR02, MJ11, MD08, Mar09, MS05b, Mey06a, Mey06b, Mon03, MGB02, MTM05,

OSM11, OSF11, OK00, PG11b, PR14, PP03, PW11, Pec13b, RXH05].
Element [RX07, RR10, RZ03, Sch03a, SS05a, SSS03, Sii99, SH03, Ste08, SW11, SWR08, Sül99, SS05b, TLO03, TLY02, TXZ09, VS07, VH07, WSZ11, Was11, WX13, XZ02, YVC07, Zab00, Zha00, Zou11, vdVvdV00, ALM12, Aln12, KKL⁺12, KL12b, KL12c, Kir12, KL12d, LWH12, LMW12b, ØW12b, Sel12, VSLMN12, DVH00]. **Element-Boundary** [KL15].
Element-Discontinuous [DS14]. **Element/** [DVH00]. **Elementary** [RP04].
Elements [BN11, Bof03, BG12a, BIA14, DDS07, Dem01, Dem03a, Dem03b, Dub11, FMH02, Fun97f, GHHL14, Hie05, KRP08, KR08, KW00, LW05, Le 07, Lin00, LS02, ML03, MBR⁺07, PG11b, PPRZ07, SMPZ07, SW08, Ste15, TN07, VS14, VL07, War00, Wie05, AM12, KM12a, KLRT12, TSKK12].
Eliminated [YM09]. **Elimination** [TBP06, YHM⁺03]. **ELLAM** [Wan00].
Ellipsoidal [HKK14]. **Elliptic**
[AH05, Ano08-29, AA08, Arb12, ABCM00, AHZZ13, BFZ02, BGM03, Beb08b, BA11, Bog11, BD98, CNZ11, DW98, DLZ08, DW02, DP05, DW07, EGV11, EM15, ES14, FY13, GHHL14, GH11, GMSS08, HPS13, HN05, HP06, HHR⁺15, Jun98, KW98, KW04c, KW04d, KW04j, Kic98a, Kic98b, KRW05, KR08, KT08, Kuz09, LM05, Leu08, MDTC08, Mar07, MPLT00, NR14a, PS03, SSWW14, Sch03g, Sch03j, Sch13b, VS07, WX13, Zun09, dFS11]. **elsA** [GMM11]. **Embedded** [AM09, KFN11, PJ07]. **Embedded-Grid** [AM09].
Embedding [NLC08, CGPT05]. **Embedding/** [CGPT05]. **EMC** [Rie01].
Emerging [NLL11]. **Empirical** [Dat04]. **Enabled** [GF12, YT12a].
Enclosed [KW08, Tur99d]. **Encountered** [AC08]. **Energetic** [NHF09, WCJ06]. **Energies** [MSLvG99]. **Energy**
[Alb99, BZ07, CD07, Cas08, Chi06, DF11, DKW08b, ED07, FK08, For14, HHR⁺15, Jar02, Kuc99, LL12, LSZ14, LHC02, MY11, MS06, SW06b, Ska11, SO02, Tay11, WCJ06, WKE06, ZLY02, Zun09, BAG04, MBM09, PK04].
Energy-based [ED07]. **Energy-Corrected** [HHR⁺15]. **Energy-Level** [MS06]. **Engineering**
[BS02a, BGKW09, BB06c, BDZ02, BDZ99, ERL05, EGH⁺14, EIL08, HRGD02, HSGI10, HKWX11, KN11, KMR13, KV10, KHP⁺05, KiSO⁺11, LDK⁺08, LBS⁺13, MBS15, RRG07, WK07, vR01b, vRGH01, Ban13].
Enhanced [Lam09, Zha00]. **Enhancements** [BCKP00]. **Enhancing** [Var05].
ENO [Shu99]. **Enriched** [JT05, JT07]. **Enrichment** [Sch08b, SW15].
Ensemble [SO02]. **Ensembles** [ERO99]. **Enthalpy** [MLV09, GD09].
Entropy [AO07, DPL13, GP11]. **ENUMATH** [ADK⁺15]. **Envelope** [VS14]. **Enveloped** [SACP09]. **Environment**
[ACS09, Art00, BCDF06, BBM06, CGG08, KT11, LG11, MS99, MLD05, OK11, PD00, GBG⁺05, MG09b, SA09, WLLY09]. **environment-dependent** [WLLY09]. **environmental** [IDR⁺11]. **Environments** [BHM⁺00, CDH⁺00].
Enzo [Bor05a, OBB⁺05]. **Enzyme** [ZLY02]. **Enzymes** [MSW⁺06].
Equation [ACC09, Akk06, AC05, AES05, BG98, Bär02, BS14a, Ber09, BB06a, BB06c, Bon02, BvdW11, BC02b, Cod11, Dit15, Dub07, EW08, EM12, FZ07, Fas00, Fun97d, GZ14, Gar08, GFS06, HS08, HDF11, HSZ13a, KJ02,

KTB03, KW04g, KS07, KS13, Kwo14, LCD07, Ler14, LP03, MZ14, MSD00, PDH08, PV98, PvR01, RDD⁺14, RY14, SK03, SAB⁺06, SW06b, SMT08, SW05, TD08, WG99, iYN02, ZDZR15, BLSO09, LEB05]. **Equation-Based** [BB06c, EW08]. **Equations** [Abd12, ADL...14, AG15, Ano08-29, Ano08-31, AA00, AP08, AHE13, BYJ08, Bal05, BH15, BR00a, Bau11, BIK02, Beh06m, BZ04, Bof03, BR11b, BR14a, EGLS14, BT06, Buf03, BD98, CGHS11, CO13, CKL11, DD03, Dem01, Dem03a, Dem03b, DDG11, DLM14, Des00, DHW02, DFR01, DK07, DN07, DNR08, DN08, DNR09, DEGL11b, DIV00, DFR14, EP11, EG08, EDG⁺14, EEGW08, Fai02, FY13, FHM05, FBAC11, Fom03, FGR02, Fre05b, FM05, FP15, Fun97f, Fun97g, GH07, GSF99, GLMTO09, GS02b, GS05, GS07b, GS08d, GS11c, GS13b, GS14, GWZ14, HD03, HKS06, HPS13, HR11, HJHLP14, Hof02, HLS00, HSZ13b, HKL15, HNRRR99, Isk04d, JE11, Joh04n, JS09, JV07, KK00, KUM15, KW98, KW04b, KW04j, KW04k, KWH00, KR08, Kuh02, KRT07, Kuz05, Laa08b]. **Equations** [LT03, LO03, LGM⁺00, LMW12a, Löw09, Lun04, Mac00, MDTC08, Mar05, Mat08a, MHBMO6, MAM07, Mon03, MPLT00, NR07, NR14a, Olv11, OMS11b, PD11, PS14, Pue14, Qad08, RW00, RV02, RLEM04, SHH⁺01, SK00, Sch03g, Sch03j, SS11, SRSK15, SM09, SSH00, Swe06, Tay11, TDF06, TK02, TKH14, TL14, Uri11, VS14, VS07, Vul09, Wag00, Wan13, War00, WPBV05, Yin09, ZSS⁺15, dFO09a, CD03, KBH15, Lan99, Lan03a, LPT12, TK11, VSLMN12]. **Equidistributed** [HH14c]. **Equidistribution** [BCX13]. **Equilibrium** [ACC09, BLS06, BG08, CGP08, Jar02, SW06b]. **Equipped** [FP07]. **Equivalences** [Sch05]. **Equivalencies** [Sch08a]. **Equivalent** [DVH00, Ler14]. **Equivalent-Circuit** [DVH00]. **Ergonomics** [TBK13]. **Erlangen** [BDZ02]. **Error** [BD03, Bar05, Bar07b, Bar13, BK01, Bra07, Che08, CL11, DM14, EM08, Fis15, GP03, HDF11, HV05, HWYY11, HEML00, JS14, Joh04b, Joh04n, KS00, LB00, LM05, Leu08, Mil03d, OK00, OM08, PDH08, PO03, SL14, Sii99, Sü199, Le 09, VH07, Zun09, dFS11]. **Errors** [Dit15]. **ESF** [Hop14]. **ESPResSo** [ALK13]. **Essential** [DDJS99, KN02]. **Essentially** [WI13]. **Estimate** [Cas00, Fis15, HWYY11, KS00, Zou11]. **Estimates** [CL11, HV05, HEML00, Leu08, LW07b, NR14a, PDH08, Le 09, Zun09, dFS11]. **Estimating** [MSLvG99]. **Estimation** [Bar05, Bar07b, BvC02, DFM⁺14, FR11, LB00, LM05, OK00, OM08, PFPB14, Pf00, PC06, SL14, VH07, BD03]. **Estimator** [Güs00a]. **Estimators** [DHW02, HDF11, PO03]. **Etching** [HW02]. **Ethylene** [CGDV07]. **Ethylene/** [CGDV07]. **Euler** [Boy11b, Des00, DN07, DN08, Kuh02, LGM⁺00, OMS11b, WKR00, vLD00]. **Eulerian** [APE05, Daw05, DR06, RR10]. **European** [ADK⁺15, ABC⁺14, DRV00, HW98]. **Eutectic** [FfToNiBA⁺03]. **Evaluating** [KB12]. **Evaluation** [BV98, BPJ14, DMBS06, GLYB07, Ken05, Mij00, ÖD09b, TZ11, VDM⁺01, KKL⁺12, Qui11]. **Evaluations** [BG12b, YT12b]. **Evaporation** [LK02]. **Even** [DG08]. **Evolution** [AG15, BH00, Gan08b, HS03]. **Evolutionary** [ABC⁺14, CGP08, WGGC09]. **evolving** [NW12]. **Ewald** [BHLR99]. **Exact**

[EGLS14, HBCC14, KRP08, PDH08, SG14, FS11, Qui11]. **Exact-Exchange** [SG14]. **Examination** [FO09]. **Examined** [KK09b]. **Example** [Beh06e, JL05, LS00]. **Examples** [CV05a, KGSW12]. **Exchange** [GGG13, LSLK05, SG14, WKE06]. **Exchangers** [PDF11]. **Excited** [GL10]. **Executing** [GV12]. **Existence** [FMP14, Joh04c]. **Existing** [BW03b]. **Expansion** [DLT14, Rei13]. **Expansions** [AH11, PL11]. **Expectations** [Boy11a, NR14b]. **Experience** [HVG09]. **Experiences** [EKN15, Fas00, TBK13, TGEM09]. **experiment** [LBB09]. **Experimental** [GL06, GL10]. **Experiments** [BIM05, DKB⁺13, HFSS06, Mül03i, SSP⁺03, Kys09, LEB05]. **Expert** [SS08]. **Explicit** [Abd12, Alt11, BBC⁺14a, BBH⁺15, DAG15, DFF11, DZ05, FB13, FR00, GKEK10, HKL15, SZ15, GA09, GS08b]. **Explicit-Implicit** [DFF11]. **Exploitation** [LU08]. **Exploiting** [Bon02, GP08b, LK12, Rya15, SA99, SWR08]. **Exploration** [Kuc99, PK04]. **Exploring** [LGS06]. **explosions** [ME09]. **Exponent** [KFJ07, Lou04]. **Exponential** [Boy11b, BSS14, SSWW14]. **Exposed** [HRGD02]. **Expression** [JT08, PP12, KS04]. **Extended** [CW05, Sch09, YR06]. **Extending** [DKW08a, LCYB06, MBR⁺07]. **Extension** [Bar00, Kwo11, PH06, GTS⁺11]. **Extensions** [CDFS14, FL05, Fun97a]. **Exterior** [HF02]. **External** [DLT14, GHT09, Klo01b, Klo01a]. **Extracting** [MY11]. **Extraction** [DDG⁺14, Mir08, MI01]. **Extrapolation** [BGKM15, ENOD99, MB01, PG07]. **Extrapolative** [Gri09c]. **Extreme** [Ull14]. **extruded** [GTS⁺11]. **extruded-** [GTS⁺11]. **Extrusion** [Oks03].

Face [KW02, MS07]. **Faceted** [BAF03]. **Factor** [For14, NSS09]. **Factorization** [DNR08, DN08, TR07]. **Factors** [DHHS05, SKR04]. **Failure** [vdM10]. **Failures** [BVB00, Sch99a]. **Family** [DKW08b]. **Fast** [AES05, BFZ02, BK15, Bor00, Bru03, CL12b, Dur11a, EY12, FKMS08, Gás02, HG09, HIT07, Ken05, KR08, KS05, LOSZ07, OGWW98, Qui11, San02, Sle11, TL06, Yin09, iYN02, CKB11, GH14a]. **Fast-Slow** [Sle11]. **Faster** [KSM03]. **Fasthenry** [LK05]. **Fat** [BIM05]. **Fatigue** [Kam02]. **Fault** [GL07a, HKH⁺15]. **Fault-Tolerant** [HKH⁺15]. **FDTD** [KO08, KO11]. **FE** [OS11]. **FE/** [OS11]. **Feature** [NPS02, WGF⁺03]. **Features** [BW03a, Ede05, LB05, NSS09, Ull14]. **Fekete** [DPR08, PPRZ07]. **FEM** [BBMU13, BF02, BP08, BA11, BP03, BK01, DW98, DLZ08, DM11, DM14, EM08, FMP14, GKEK10, HM08, HO03, HT06, KGW99, KBG06, Löw09, Sch11a, Sch99b, SM02, Sch02]. **FEM-Based** [BBMU13]. **FEM-BEM** [HM08, KGW99]. **FEM-Simulation** [BK01]. **FEM/** [HT06]. **Femtosecond** [SI99]. **FENiCS** [LMW12a, LØRW12]. **FErari** [KL12a]. **Fermion** [Bor05b, Liu00, Mon00]. **Fermions** [Bor05b, Fol05, Gut00, Lip00, Neu05]. **Ferrohydrodynamics** [LM03b]. **Ferromagnetic** [VDM⁺01]. **FETI** [Ano08w, Bre08, DDS07, DP07, DH05b, DHS07, DVH⁺08, DW02, DP05, DS14, FLLA05, FP07, GS11a, KL05, Kim07, KL11, KW02, KW05, KRW05, KP07b, KR07, KRP08, KWW08, KLR⁺15, KB08, KHD05, KHD07, MS07,

MD08, PW11, Pec13e, RMSB05, Rou09, Ste05, SMGR07, TL14, VDDP07].
FETI-2LM [Rou09]. **FETI-based** [KHD07]. **FETI/** [Pec13e]. **FFC**
 [LØRW12]. **FFT** [MAK⁺15]. **FFT-Based** [MAK⁺15]. **FGMs** [GZS07]. **FI**
 [SW01]. **FI-Technique** [SW01]. **FIAT** [Kir12]. **Fiber** [AC05, Tor05, MR09].
Fibrous [BIW09]. **Fictitious** [Ano08l, GH11, TW03, PEG11, HF02].
Fictitious/ [HF02]. **Field**
 [BED14, DVH00, HL07c, JMR⁺02, KBT01, Klo01b, Klo01a, KiSO⁺11,
 KKJ⁺01, MH15, MB01, OK00, RL05, SKvR01, TMPM02, YLT05, vR01f,
 AG03, BAG04, Con03, Dan03, FfToNiBA⁺03, GNS03, Sch03a].
Field-Distribution [Klo01b, Klo01a]. **Fields** [AG99, BR14b, BG11,
 CDWW01, HH15, Joh04k, MSU01, Miy02, SUGL09, Yse02b]. **Fifth** [HW98].
File [BHM⁺00, LSLK05]. **Fill** [Dam08]. **Film** [HWM99]. **Films** [LRH03].
Filter [DAG15, GRF01, HBZ05, YS11]. **Filtered** [FR11]. **Filtering**
 [AN02, DFM⁺14, KW04e, MD07, OMS11b, Rya15, WW98]. **Filters**
 [ESS14, JW11, Ska11]. **Finance** [Hol11g]. **Financial**
 [KRU14, SNT03a, SNT03b]. **Fine** [DW07, KRSS06]. **Finger** [HWM99].
Finite [AB00, AC08, Ano08a, ABV15, AIMY11, BB02, Ban05, BN11, BP14,
 Bar05, BS02b, BS14a, BCL15, BC02a, BB06a, Bof03, BG12a, BH08b, BT11,
 BIA14, BA14, CSX05, Che08, CH11, CG11, CDWW01, Cod11, CLP09,
 CKL11, DVH01, DBK15, Dem01, Dem03a, Dem03b, Dit15, DW07, DS14,
 Dub11, Dul01, DR06, FNSW05, Fai02, Fal00, FR00, FGGZ11, FY13, FMH02,
 FdlPFC15, GHHL14, GJMN05, GC15, GHL⁺07, GMCL14, GE02, HBCC14,
 HK10, HH06, HP06, HH01, HDY05, HK02, HJ03, HSZ13a, HHR⁺15,
 HWYY11, HKL15, JKAG15, JE11, Joh04b, JS09, Jun02, KN02, KSC⁺14,
 KFD07, KW04d, KL12c, KS02b, KL15, KW00, KBG06, Kuh02, Kuz05,
 LW05, LS05, Lan97e, Lan97g, Lan03f, Lan03h, LUN11, LM03b, Lin00, LZ05,
 Liu05, LKL13, LMW12a, LMW12b, Mac00, MD08]. **Finite**
 [Mar09, ML03, MS05b, Mey06a, Mey06b, MO11, MSS13, ML04, Mü103a,
 MBR⁺07, NGD⁺15, NCF08, OK00, OM08, PP03, Pec13b, RXH05, RX07,
 RR10, Rin11, RZ03, SCMR13, Sch03a, SS05a, SMPZ07, SSS03, Sei07, SKD02,
 SAG⁺06, Sii99, SH03, Ste15, SWR08, Sül99, SS05b, TN07, TT12, TA05,
 TSKK12, TLO03, TLY02, TK02, TK05, TD08, TXZ09, VM09, VS14, VS07,
 VL07, WSZ11, War00, Wei03, Wie05, WX13, XZ02, Yse02b, Yse02a, Zab00,
 Zha00, ZSS⁺15, ZDZR15, Zou11, dFS11, vdVvdV00, AM12, ALM12, Aln12,
 KM12a, KLRT12, KKL⁺12, KL12b, Kir12, KL12d, LWH12, ØW12b, Qui11,
 Sel12, VSLMN12, DVH00, SS05a]. **Finite-Cover** [TLY02].
Finite-Difference [GC15, SAG⁺06, ZDZR15]. **Finite-Element**
 [AB00, HH06]. **Finite-Temperature** [KSC⁺14]. **Finite-Volume**
 [AIMY11, HK10, LUN11, Rin11]. **Finite-Volume-Particle** [HK02]. **finite/**
infinite [DDS07]. **First** [AL03, VGK08, dK09a, WLYL09]. **First-Order**
 [AL03]. **First-principles** [dK09a, WLYL09]. **Five** [Cas08, SI99]. **Fixed**
 [DHK⁺00, WGG06, WGKM10, ZFB02]. **Fixed-Grid** [WGKM10]. **Fixers**
 [JW11]. **Flame** [BdS07, BFL07, CGDV07, Din02, Tsa04]. **Flames**
 [Din02, vdHB10]. **Flap** [TOG09a]. **Flapping** [KT09, KT11, SA09]. **FLASH**

[DPW⁺05]. **Flat** [DKK09]. **Flattening** [Utk06]. **Flavor** [Wil00]. **Flavour** [Lip00]. **Flexible** [TA07, WGGC09]. **Flexibly** [TBK13]. **Flight** [CBG02, GS99, SHK99]. **Flip** [HSMS11]. **Flip-chip** [HSMS11]. **Floating** [WT10, Of08]. **Flood** [CDH06]. **Flow** [ALKK09, ACC09, AC11, BP14, BC11, Bas03, BW03a, BW09, BT11, BBM06, BW03c, CTD05, CB08, Con03, DBW12, DC12, DKK09, EW05, EGZ99, EKN15, ESD02, FS13, FN02, FL00, FRXT99, GMS11, GM00, GMCL14, HG09, HAP06, HSMS11, HM11, HJ03, HW02, HO03, JB07, Joh04k, KD12, KFN11, KTC07, KWKK04, KS02a, KCO09, KS02b, KLGR05, Kro02, Krz05, Lam09, LOR09, MCC09, MNP07, MG05, NSS09, Nor09, OSF11, ØEGF05, PG11a, PTS⁺12, PH12, PPEdD14, PKKS11, PO03, RSBE02, SW98, Sch99b, SP07, SUGL09, SM08, SU13, SK12, SWD12, SH11a, TI09, TPA11, Tob09, Tur99c, TW03, TH06, VV02, WDP⁺12, WGF⁺03, WT09, WHH02, YM09, YS11, YPA⁺11, Yse02a, ZFB02, vVVK10, Bel05, BAG04, FLTD09, GE09, HJJ⁺12, HLL11, IDR⁺11, SHLLM12]. **Flow-** [GMS11]. **Flow-Sensitive** [SM08]. **Flow-structure** [LOR09]. **Flows** [AM09, ATK10, ABFL00, AC05, Ann04, AYM11, AIMY11, AQ14, BR00b, BBC⁺14b, BNTT14, BD09, BKvOA05, BA14, CM03a, CZC11, DPW⁺05, EG12a, EEGW08, Fas00, Gov13, HSM02, IT09a, IT09b, Joh04f, JL05, KiSO⁺11, LSL⁺00, LS00, LPK11, LQW02, MHB07, MRRS99, MPS05, MGB09, NDBG14, NI11, PDH07, RL11a, RL11b, SPS⁺03, Sei07, SRCB02, SDP98, TIN⁺11, TPR09, TK05, TKH14, TGSS09, UWN⁺15, VRMD00, Vil05, Wag99, Wan00, WGGC09, Yse02b, YEÖ04, ZCC11, BLT⁺11, CC09, Gro11, GD09, HLL11, MG09a, MG09b, MML12, MB09b, Per11, XCL11, ZS09]. **Fluid** [ASFB99, BC09b, BBMU13, BHKV03, BGKM15, BUM⁺15, BU13, BVB00, BMP14, BBM06, BS06, BMS10, BBGM10, BKK⁺15, CDLL11, CGP08, Con03, DDFQ07, DR06, DMD99, DWB13, FCH⁺14, FL00, FKAF11, GMS11, GTK06, GKEK10, GD10, GL06, GL10, GACD05, HJ03, HSGI10, HT06, KSS15, KW08, Lan97b, Lan03c, LM11a, LBCP02, MNW08, MKZS06, MB10, OS11, Pet09, PO03, RR10, SHY06, SSBP10, SKD06, Sch99b, Shu99, SDKI08, SRR99, SS05b, TSSA06, TKH14, TDBEE11, TGEM09, TH06, THR⁺10, THM⁺10, Vie06, WGG06, WGKM10, Wen08, YZ11, vZB10, BD03, BLMS13, FBC05, HJJ⁺12, HVSC11, MG09a, Sel12, SHLLM12]. **Fluid-Acoustics** [BKK⁺15]. **Fluid-Structure** [BC09b, BBMU13, BUM⁺15, BBM06, BS06, BBGM10, DDFQ07, DR06, FCH⁺14, GTK06, GKEK10, GL06, GL10, HSGI10, HT06, KW08, LM11a, LBCP02, MNW08, MB10, OS11, RR10, SHY06, SSBP10, SKD06, SS05b, TSSA06, TH06, THR⁺10, THM⁺10, Vie06, WGG06, WGKM10, YZ11, vZB10, HJJ⁺12, Sel12]. **Fluid-Structure-Interaction** [Wen08]. **Fluidics** [CA04]. **Fluids** [AC11, BHKV03, BDH⁺04, LL09a, Gov13, KS09c, KW08, LL09b, TA07, Wal03, TSKK12, WWAK04]. **Flutter** [Svá09]. **Flux** [BGM14, BCL15, tTBLvDP15, PDH08, SS11]. **Flux-Free** [PDH08]. **Fluxes** [CD07]. **Fly** [SW15]. **FM** [NPLM01]. **Fock** [SG14]. **Fokker** [AC05, JV07]. **Fold** [FWGB02]. **Folding** [FB13, NDHS99, SLO⁺06, SO02]. **Folds** [SH11a]. **Foot** [ASW09]. **Force**

[Dar06, DLT14, LO12, OM99, SKvR01, TMPM02, Yse02b]. **Force-Based**
 [LO12]. **Force-Field** [TMPM02]. **forced** [ZS09]. **forces** [Wil11]. **Forecast**
 [GK06]. **Forecasting** [GGG13]. **Foreign** [GGG13]. **Form**
 [BWK06, MS05c, SSH00, AM12, Alm12, LØRW12]. **Form-Membranes**
 [BWK06]. **Formal** [Tad08]. **Formalization** [HAP06]. **Format**
 [BGK14, LSLK05]. **Formation**
 [ABLS15, CCC⁺03, KN11, KL11, KFMK05, Lud03, NI02]. **Formats**
 [EHL13, MR09]. **Formfactor** [KKY00]. **Forms**
 [Bos01, BR14b, KL12c, KL12a, KL12d, ØW12b]. **Formula** [CL12b].
Formulas [MR02]. **Formulation** [DMBS06, DM11, DR06, FZ07, Fai02,
 FBAC11, GB15, GMCL14, HT06, Joh04o, KT07a, KT07b, KL05, Kim07,
 KRT07, PP03, PS03, RR10, RL05, SBMD06]. **Formulations**
 [Bon02, Dul01, HJHLP14, OS11, She00, WX13, MO11]. **Fortran**
 [RP12, GK06, NR06, PH06]. **FORTWIHR** [BDZ02, BDZ99]. **Forward**
 [Gil08, PF06]. **Foundations** [Jar02]. **Four** [Gen08]. **Fourier**
 [GH14a, AH11, AGH15, BMP14, Boy11b, DAG15, Dub11, KKM⁺14, WO00].
Fourier-Finite-Elements [Dub11]. **Fourth**
 [BS14a, FLLA05, Fis15, Mar07, MD08]. **Fourth-Order**
 [BS14a, FLLA05, Fis15, Mar07]. **FPM** [Kuh02]. **Fractal**
 [AT08, CCC⁺03, Hof02]. **Fractals** [FSA⁺06]. **Fraction** [Wen05]. **Fractional**
 [AG15, PJ07]. **Fracture** [MH15, Oht02, PPEdD14, VAvA10].
Fragmentation [KFMK05, RE02]. **Framework**
 [AG15, ACD02, BB03, BDE⁺05, BBB⁺13, Bre08, HH01, KMR13, KKNR05,
 NHF09, Sch09, SL00, SC08, SE03, Nar12, OT09]. **Frameworks** [Ano08j].
France [ABC⁺14]. **Free**
 [BWK06, CM03a, Chi06, DF11, DB08, GS13a, HM01, Jar02, JB07, Kuc99,
 LL12, LL05, MSLvG99, MRRS99, MPS05, MTM05, NR02a, PDH08, SO02,
 TPR09, TLY02, VH07, Vil05, WKE06, ZLY02, MBM09, PK04].
Free-Energy [SO02, WKE06]. **Free-running** [HM01]. **fREEDAR(R)**
 [HK06]. **Freedom** [MS07]. **Freeway** [SN03]. **Freiburg** [KOR99]. **Freiburg/**
Littenweiler [KOR99]. **Frequencies** [RS11, CD03]. **Frequency**
 [AN02, Bru03, BR08, CN04, CKL11, EY12, KW04e, SW01, TT12].
Frequency-Domain [CKL11]. **Friction**
 [BHØP14, DM11, HKK14, KHD05, KHD07, RSK11]. **Frictional** [FK07].
Frictionless [DVH⁺08]. **Front**
 [Ano98b, Ano99c, Ano99d, Ano99e, Ano99f, Ano99g, Ano99h, Ano99i, Ano99j,
 Ano99l, Ano99m, Ano99k, Ano00c, Ano00e, Ano00f, Ano00g, Ano00d, Ano00h,
 Ano00i, Ano00j, Ano01c, Ano01d, Ano01e, Ano02f, Ano02h, Ano02i, Ano02g,
 Ano02j, Ano02k, Ano02m, Ano02n, Ano02o, Ano02p, Ano02q, Ano02r,
 Ano02s, Ano02t, Ano02l, Ano02u, Ano03i, Ano03k, Ano03l, Ano03m, Ano03n,
 Ano03o, Ano03p, Ano03q, Ano03j, Ano03r, Ano03s, Ano03t, Ano04f, Ano04g,
 Ano04h, Ano04i, Ano04j, Ano04e, Ano04l, Ano04m, Ano04n, Ano04k, Ano05i,
 Ano05j, Ano05k, Ano05l, Ano05m, Ano05n, Ano05o, Ano06f, Ano06g, Ano06h,
 Ano06i, Ano06j, Ano06l, Ano06m, Ano06n, Ano06o, Ano06p, Ano06q, Ano06k,

Ano06r, Ano06t, Ano06u, Ano06v, Ano06w, Ano06s, Ano06x, Ano06y]. **Front** [Ano06z, Ano06-27, Ano06-28, Ano07b, Ano07c, Ano07d, Ano07e, Ano07f, Ano08m, Ano08n, Ano08o, Ano08p, Ano08q, Ano08r, Ano09g, Ano09h, Ano09i, Ano09j, Ano09k, Ano09l, Ano09m, Ano09n, Ano09o, Ano09p, Ano10c, Ano10d, Ano11f, Ano11g, Ano11h, Ano11i, Ano11j, Ano11k, Ano11e, Ano11l, Ano11m, Ano11o, Ano11p, Ano11n, Ano11q, Ano11s, Ano11t, Ano11u, Ano11r, Ano11v, Ano12e, Ano12f, Ano12h, Ano12i, Ano12j, Ano12g, Ano12k, Ano12m, Ano12n, Ano12o, Ano12l, Ano12p, Ano13f, Ano13g, Ano13h, Ano13i, Ano13j, Ano13k, Ano13l, Ano14b, Beb08a, Beh06f, BAF03, Fun97b, GBS02, GDRT14a, Hol11d, Isk04b, Joh04d, KW04f, Kre09, Kre05a, Lan97c, Lan03d, Mat08b, Mü03e, Pec13c, Sch03d, Urb02b, Woh01b, XGL05, vR01d]. **Front-Tracking** [GBS02]. **Frontiers** [And08, GDRT14b, BJ12]. **Fruits** [Hal09]. **FSI** [BWK06, FPR10, LCYB06, VDAH10]. **Fuel** [BKV00, SP07]. **Full** [BU13, CL06b, Lin00]. **Full-Scale** [CL06b]. **Full-Waveform** [BU13]. **FULLSWOF2D** [UWN⁺15]. **Fully** [BC09b, CG15, GHM11, KW08, ÖLT03, ODCK07, RR10, GTS⁺11]. **fully-** [GTS⁺11]. **Function** [BG08, BLR15, BG12b, Boy11b, CD08a, CRS06, Fai02, JM12, KB12, MDTC08, MS06, Sch09, XB05]. **Functional** [BGK⁺99, Bre08, Buf03, Hut04, MYN⁺02, MY11, NR14a, PS14, PJPGB14, Sit04, Ull14]. **Functionals** [Bad08, Bli04, KSC⁺14, Kha04, LSZ14, MH08, ZPK04]. **Functions** [AGH15, BGM14, BB08, BP08, BC02b, Cai00, CM03b, DH05a, FB07, Gás02, Ger11, Isk04g, JT05, KKM⁺14, OR12, SW15, Yse13, dBvZB10, Kir12]. **Fundamental** [Gás13, Gás15, VS11]. **Further** [Joh04l, MT05]. **Fusion** [SJCM05]. **Future** [GS02a, Ral06, Rüd99]. **Fuzzy** [DK07]. **FVM** [WHH02].

GaAs [EGZ99]. **Gains** [DZ05]. **Galaxies** [PB00]. **Galerkin** [AH05, AB00, Alt11, AA08, AS09, ABCM00, AZ11, BNT11, Bar00, BR00a, BR00b, BBC⁺14a, BBC⁺14b, Bas03, BGM14, BBH⁺15, BVB00, BLR15, BR11b, BMS15, Bru11, BH03, CNSV15, CH00, Cas00, CHP⁺07, Coc99, CKS00a, CKS00b, CLSS00, DAC00, DLM14, Des00, DLZ08, DGS08, DS14, DB08, EF00, FY13, FCH⁺14, FLST00, FBHL00, FM05, FP15, GWC11, GH13b, HFHK15, HJ08, HJS11a, HH15, HP09, HLS00, HEML00, JW15, KK00, KUM15, KT08, Krz05, Kuc15, KRT07, LB00, LS00, LKK00, LM00, LC02, MJ11, MO11, MTM05, NPC11, NDBG14, OHW07, PMSK00, RHH00, Rie11, RW00, RZ03, SS02, SK00, She00, TD11a, UL14, VH07, War00, Wu15, YAS⁺00, Zun08, Zun09, dDZ14, vdVvdV00]. **Gallery** [Ano09s]. **Games** [Hoo03]. **GAMM** [CFH⁺03]. **Gammath** [AHE13]. **Gap** [SR05a, SKR04]. **Gap-Tooth** [SR05a, SKR04]. **Gas** [ATK10, ACC09, DK07, HBW05, IT09b, Lam09, NSS09, Per99, PKKS11, SHM06, SK12, SGP07, TKH14, Yab02, vVVK10, GE09]. **Gas-injection** [Lam09]. **Gas-Kinetic** [IT09b]. **Gasdynamic** [Bar99]. **GasDynamicsTool** [Med09]. **Gauge** [DHHS05, Med00, dFJ05]. **Gauged** [BP03]. **Gaussian** [Lam11, TT12]. **Gene** [JT08, LKL13, KS04, HKH⁺15]. **General**

[Ano09q, BG08, BD00, HJS11b, HDY05, JW11, Kre05b, PP03, RFV03, Saa07, SDKI08, KM12a, LEB05, Sch11b]. **Generalization** [SIR08]. **Generalizations** [KS07]. **Generalized** [ACC09, Akk06, BB02, BG98, BGOD05, DBZ15, FWGB02, Gás11, GH14a, Gus00b, Gus00c, HH00, KB12, Krz09, SM02, SO02, TN07, XZ02]. **Generalized-Ensemble** [SO02]. **Generated** [EW08, LK05, SHK99]. **Generating** [HH14c]. **Generation** [Beh06a, Beh06g, Ber03, BS14b, CP05, Chr06, HWM99, KSW02, KT05a, WB12, ALM12]. **Generative** [Neh12]. **Generic** [MYN⁺02]. **Genetic** [BD07]. **Genome** [GZ08b]. **Genomes** [LGS06]. **Gent** [DRV00]. **GeO** [HHB04]. **Geodynamics** [KKS06]. **Geoelectric** [BA01]. **Geological** [HH00]. **Geometric** [Boy11b, Ede05, GHK⁺14, HKMR06, JT08, LB05, LR11, Lei99, RL11b, SCMR13]. **Geometrical** [Bon02]. **Geometrically** [DGS11, TA05]. **Geometries** [Beh06m, BBB⁺13, BFM⁺99, Fom03, HJS11b, KS05, SGT09, SKTR02, GTS⁺11]. **Geometry** [BGN05, BIW09, CGLQ07, Des00]. **geophysical** [FBC05]. **Germany** [BMS05c, CFH⁺03, HW98, vRGH01]. **Get** [GHM11]. **Getting** [Lan97d, Lan03e]. **Gibbs** [Boy11b, Jun11]. **GISMOS** [LKYJ00]. **Given** [SH11b, Yse02b]. **glass** [MLV09]. **Glasses** [HFSS06]. **Global** [Bro00, CH03, DW98, Dul01, GK06, JE11, JRG11, KK09b, KPM99, LJTN11, LMR11b, MO11, PDS⁺05, SS08, TZ11, TG08, Nik05, DeF00]. **Global-local** [MO11]. **Globally** [DF11, LSL05]. **Globus** [Eng00]. **Glue** [GJMN05]. **Glycolysis** [GHT09]. **Glycopeptide** [LSR06]. **GMAO** [GK06]. **GMRES** [BR00a, Bv01, Olv11]. **GMRES-type** [Bv01]. **Goal** [VH07]. **Going** [BDK⁺00]. **Good** [Tis01]. **GPC** [BA11]. **GPU** [CLY⁺14, GPG08]. **GPU-Accelerated** [GPG08]. **GPU-Based** [CLY⁺14]. **GPUs** [DS15a]. **grad** [WSZ11]. **Gradient** [CGPT05, Gay06, LHC02]. **gradients** [GD09]. **Grain** [RJB03]. **Grained** [ALK13]. **Graining** [DF11, Kal12, LL12]. **Granlibakken** [Gra06]. **Granular** [GM00, Lud03]. **Graph** [BIW09, JSH14]. **graphene** [Kys09]. **Graphics** [RS06, YKI09, LKYJ00]. **Graphs** [BH08a, BCKZ13]. **Gravitational** [Cho05]. **Gravitationally** [KSM03]. **Gravity** [GM00]. **Green** [CRS06]. **Grid** [AM09, Ano08-27, Ano08-28, AYM11, AIMY11, BG98, BBC⁺14b, Beh06a, Beh06g, BG13, BDK⁺00, CGLQ07, DK07, DFF11, EG12a, EGZ99, EJHS00, GJ09, GC07, GH13b, GO14, Hac13, Hol11g, Hol11f, IWK⁺11, Jac14, KKLD02, KFN11, KSS15, LKV00, MC05b, MLD05, NI11, OMS⁺11a, Qad08, RS12, TGEM09, UL14, WGG06, WGKM10, Yab02, YM09, Zum00b, EdDB11, Kic98b, LOR09, BHM⁺00, Che00, CDH⁺00, DeF00, Elm00, Kes00]. **Grid-Induced** [DFF11]. **Grids** [BH15, BNTT14, Beh06k, BBMS05, BV98, BBM06, BD98, BBGM10, BPJ14, CNZ11, EKS99, FNSW05, FDP15, GJMN05, GHK07, GGG13, GG13, Gar13, GK14, GTK06, GH14a, HBCC14, HMI07, HH14b, HKN98, Hen05, IH07, IT09a, IT09b, JB07, KL05, Kuz05, MS05b, MPLT00, OMS11b, PZ13, PFPB14, Pf00, RSBE02, Rou09, SLST07, SAB⁺06, Tai05, TOG09a, Tay11, Zum00a, CL05a, GP14]. **Groundwater** [BNTT14, Elm00, SW98, SWD12, WHH02]. **Group** [Fuc00, GFS06]. **Groups**

[FC11]. **Growing** [LRH03, VW03]. **Grown** [VNW02]. **Growth** [CH00, DDKP02, Her03, Kam02, KPM99, MR03, SKD02]. **Guaranteed** [NJ00, NR14a]. **guess** [TDV11]. **Gyro** [Bil05]. **Gyrokinetics** [KPJ13].

H [DW13, KL08, KV08, LGK07, SKvR01, TWW12, Urb02d, WSZ11, XZ11].

H-LU [LGK07]. **H-Matrix** [KL08]. **H-V** [SKvR01]. **Hamilton**

[AA00, HLS00]. **Hamiltonian**

[AR99, Bir14, D'A15, FGR02, POB13, WLYL09]. **Hamiltonians** [TV14].

Handling [BBB⁺13, PH12]. **Hanging** [Sch11a]. **Hard** [CBG02]. **Hardware**

[BCKP00, YKI09]. **Harmonic** [Bof03, tTBLvDP15, EGLS14, DVH01,

Dem03b, Kir03, Kwo11, RV02, RFV03, Sar02, SS01]. **Harten** [ACD02].

Hartree [SG14]. **Hazards** [GS99]. **Healing** [VAvA10]. **Heart**

[SLG03, TPA11]. **Heat** [Bär02, BS05, BBCK12, Dit15, Gar08, GW02, HM11,

Kwo14, LYK05, Mac00, MCB02, MAK⁺15, NI02, PDF11, WS02, MG09b].

Heating [SW06b, SDSU01, Yak01]. **Held** [DRV00, BMS05c, HW98].

Helmholtz

[Ano08s, EG12b, EM12, GZ14, Gás00, HF02, HIT07, KS07, KS13, OVM10].

Help [KSM03]. **Hemodynamics** [THM⁺10, VSML12]. **HERA** [Jou05].

Herglotz [CM03b]. **Hermite** [HA15, YVC07]. **Hessian** [BH08a, GMSS08].

Hessians [Wal12]. **Heterogeneous**

[AA04, Ano08t, Arb12, BCKP00, CTD05, DDFQ07, DEGL11a, DNSS13, DS11,

EW05, EG12a, EHR12, FNSW05, GGN07, GL07b, HJ08, HJS11b, KR07,

KR09, NP05, OVM10, Rod13, WB05, Zun03, EdDB09, FLTD09, MDC11].

Heterophase [GES06]. **Heterostructures** [Bir14]. **Hexahedral** [LPH00].

Hierarchical [Ano08u, BGK14, BG98, Beb08b, BK01, FSDC02, HKK05,

HS14, KTB03, KP14, KBG06, Le 05, LN12, MYN⁺02, MDC11, RSBE02,

Sch08b, Zou11, MO09]. **Hierarchically** [WK10]. **Hierarchies** [LSL05].

Hierarchization [Jac14]. **Hierarchy** [MBR⁺07]. **High**

[ASFB99, AMQR14, Atk00, AHE13, BH15, BD99, BR00b, BBC⁺14a,

BBC⁺14b, BBH⁺15, BFF09, BBB⁺13, BP07, BB06a, BR11a, BS14b,

BFSW99, BGH02, BWH02, BMP14, BR14a, BWLA02, Bru03, BR08, Cai00,

CNSV15, Cas08, CZC11, CGL09, DDKP02, DLM14, Dit15, Dra11, Dub11,

DFR14, EG11, EGV11, Elm00, ESBD02, EY12, EHL13, FJY06, Fas00,

FdlPFC15, For14, FP15, GB15, GWC11, GT11, GBM06, GP11, Gus00b,

Gus00c, HM11, HR11, Hol11g, HKL15, JV07, KSW02, KKM⁺14, KRU14,

KS09b, KMR13, KAB13, LS99, Ler14, LS00, MB01, Mav11, MIL⁺11,

NDBG14, OHW07, PDL11, RE02, RU12, SMPZ07, SKTR02, Sco06, SRCB02,

SGC07, Shu99, SL00, TT12, TSM14, Tur00, VRMD00, WSZ11, Wir14, Yan06,

YS11, YT12a, ZCC11, vdHB10, GA09, GD09, KBH15, ABC⁺14, BDZ02].

High [BDZ99]. **high-accuracy** [GA09]. **High-Contrast** [EG11, EGV11].

High-Dimensional [BBB⁺13, KKM⁺14, RU12]. **High-Frequency**

[Bru03, BR08]. **High-Order**

[Atk00, BH15, BBC⁺14a, BBC⁺14b, BBH⁺15, BS14b, BR14a, Bru03, BR08,

CNSV15, DLM14, Dub11, DFR14, FdlPFC15, FP15, GB15, GWC11, GBM06,

GP11, HM11, Ler14, NDBG14, OHW07, SRCB02, WSZ11, YT12a].
High-Performance [DDKP02, Elm00, ESBD02, Gus00b, Gus00c, KMR13, MIL⁺11, SKTR02, SL00, Tur00]. **High-Reynolds-Number** [KS09b].
Higher [Bär02, Bas03, Bau11, BvdW11, CD08a, Dit15, EKN15, Fre05a, NCF08, OGWW98, OM08, WL14]. **Higher-Order** [Bau11, BvdW11, CD08a, Fre05a, NCF08]. **Highly** [AC08, AEKT09, AR99, BGN05, CC12, FNSW05, FBAC11, KW98, NHF09, PF06, SGP07, WKR00].
Highly-Packed [BGN05]. **Highly-Unstructured** [WKR00]. **Highway** [FS13]. **Hilliard** [BGyS13, Wan13]. **History** [Gre00]. **Hodge** [PG11b]. **Hodge-** [PG11b]. **Högskolan** [EJHS00]. **Holes** [Cho05]. **HOLMES** [BP13].
Holst [BN13]. **Homogeneous** [GC07, Luk01]. **Homogenisation** [Le 09].
Homogenization [AA04, BC12, ER02, GY12, MAK⁺15, Run09a, Run09b, SM02, Sch02, SW05, WB05]. **Homotopic** [CSX05]. **Homotopy** [GS99].
HONOM [ABC⁺14]. **Horizontal** [KKLD02, Thu11b]. **Host** [Che00].
hovering [SA09]. **hp** [BN13, DDS07, SSWW14, Sch11a, War00].
hp-Adaptive [BN13]. **hp-DGFEM** [SSWW14]. **hp-FEM** [Sch11a].
hp-Finite [War00, DDS07]. **hp-finite/infinite** [DDS07]. **HPC** [AG15, IDR⁺11]. **HPLC** [BWLA02]. **HPSEC** [BDZ02, BDZ99]. **HPVM** [BCKP00]. **Human** [LM11a, SLG03]. **Hybrid** [ATK10, AR06, AYM11, BA14, DFF11, FL05, FL00, GMS11, HDY05, HVSC11, IT09a, JS14, Jo605, Jun11, KJ02, KWW08, KLR⁺15, KS02b, Lip00, NGD⁺15, PC06, TR07, TPR09, Vil05, Wen08, YZ11, YPAE09, WD09, WWAK04].
Hybrid-Trefftz [HDY05]. **Hybridizable** [NPC11]. **Hybridized** [dFS11].
Hydration [TV99]. **Hydration-Dehydration** [TV99]. **hydraulic** [LOR09].
hydraulics [IDR⁺11]. **Hydro** [KGSW12]. **hydrocarbons** [Ull09].
Hydrodynamic [BFM14, Jou05, MNO⁺05]. **Hydrodynamics** [APE05, Fry06, KN11, Mon02, MIL⁺11, PMSK00, Ros11, SRR99, Uri11, WH02, Wil11]. **Hydroelastic** [WT10]. **hydrogen** [MBM09]. **hydrogeology** [EdDB09, EdDB11]. **Hyper** [FA12]. **Hyper-Dual** [FA12]. **Hyperbolic** [BR14a, CDM05, CLSS00, DG08, Fal00, FR00, LB00, LM00, Sii99, SH03, Sül99, Tza99, Wir14, Lin00]. **Hyperbolicity** [TT11]. **Hypergeometric** [CD08a]. **Hypersingular** [SMT08]. **Hypersonic** [ACC09, WS02].
Hyperspherical [AKM⁺09]. **hypre** [FJY06, LAOK07]. **Hysteresis** [DVM⁺01, TV99].

I/O [BHM⁺00]. **I/r** [IMM⁺02]. **I/r-RESPA** [IMM⁺02]. **ice** [dK09a].
ICOSAHOM [HR11, KBH15, AHE13]. **Ideas** [DHL⁺99, Thu11b, Thu11d].
Identical [GKB06]. **Identifiability** [BDOR04]. **Identification** [BDOR04, CLZ08, CCT02, GDRC02, SW98, TH03]. **Identity** [Che11].
Ignition [BKV00]. **II** [ACvdE⁺05, BMS10, FM11, GS05, HDA⁺04, Tad04, VPC⁺05]. **Ila** [ME09].
III [BFJ⁺05, GS07b, SHB14]. **Ill** [IF02]. **Ill-conditioned** [IF02]. **Illustrated** [SDKI08]. **Illustration** [Dav06]. **Illustrative** [JL05]. **Image** [ACD02, DH02, FK02, GH08c, SCMR13]. **Image-Based** [SCMR13].

Imaginary [Lou04]. **Imbedding** [Ano08]. **Immersed** [BBMU13, HK10, LKL13, PG07, PG09, PG11a, Thi00, Wu15]. **Immersion** [Bro00]. **Immersive** [Fuc00]. **Impact** [BFL07, DS15b, Nor05, PYA09, Rüd99, WB12]. **Impedance** [SS01]. **Implementation** [Ano05p, BBC⁺14a, EG08, FJY06, FSXZ14, HBCC14, HKH⁺15, How05, IT09b, JM06, KB07, LDHS13, Le 07, MT05, MNW08, MT02, NN12, OK11, RP12, SE09, SM08, Ano05h, PEG11]. **Implementational** [Sch03h]. **Implementations** [BCH⁺06, HM06, TGEM09]. **Implemented** [SAG⁺06]. **Implicit** [APJ09, BBC06, BBC⁺14a, BB08, DLM14, DFF11, Gás02, Gen08, GC15, GKKS07, LGM⁺00, MHBM06, NDBG14, ØLT03, ODCK07, PPC07, SHY06, SW06b, SBMD06, TW03, Vie06, FHM05]. **Improved** [Fol05, LPT12, MM11, PJ07, Shi11]. **Improvement** [DHHS05, FKAF11, TZ11]. **Improvements** [GHM15, GWMW02, SO04]. **Improving** [HC05, TBP06]. **Impulse** [IMM⁺02]. **IMRT** [JM06]. **Incident** [NL05]. **Include** [MAK⁺15]. **Including** [HHS⁺01, HH03, Klo01b, Klo01a, SW06b]. **Incomplete** [AZ11, TR07, TH03]. **Incompressible** [AM09, AIMY11, FM05, Gje98, HM11, HJ03, HO03, HNRRR99, Joh04f, KTC07, KK00, KRW07, KW08, LS00, LPK11, LLR11, NI11, ÖNG12, PW11, Sei07, TI09, TIN⁺11, TK02, TK05, TL14, Tur99c, TW03, TH06, Gro11, TSKK12, VSLMN12]. **Increase** [CXX12]. **Increasing** [GV12, Rya15]. **Incremental** [KK09a]. **Indefinite** [FLLA05, Krz09, Reu00, SMT08, XL09]. **Independent** [Bli04, RK05]. **Index** [Ano09e, MLG08]. **indexdet** [MLG08]. **Indicator** [BK01]. **Indicators** [DM14, SS08]. **Indices** [VPRF11]. **Individual** [Fuc00]. **Indoor** [KLGR05]. **Induced** [DFF11, KSW02, SK09, SH11a, ZS09]. **Induction** [SDSU01]. **Inductive** [BFSW99]. **Inductor** [LK05]. **Industrial** [And08, CS03a, Kro02, KPM99, SGP07, IDR⁺11, LPSB09, MBG11]. **Inelastic** [CW05]. **Inequalities** [Ano08-35, BGM03, BDS08, DH05b, DHS07, GHHL14, PS11, Rie11]. **Inequality** [GK07]. **Inert** [dNKS99]. **Inexact** [DW98, HSZ13a, KRP08, LOSZ07, SS07b]. **Inexactness** [BG03]. **Inextensible** [BQGC15]. **Influence** [KB03, MR02, MN05, Ste05]. **Information** [DDG⁺14, DK09b, JE11, TH03, WS03]. **Infrastructure** [GP00b, GP00a, OMS⁺11a]. **Ingrowth** [VAvA10]. **Inhomogeneous** [Kan99, Kas06, KB03]. **Initial** [BRP03, JW15, KPJ13, LN15, MSLvG99, VM09, TDV11]. **Initiation** [LL09a, LL09b]. **Initio** [Mei99, TMPM02, ZLY02, Sit04]. **Injection** [Ber07, Lam09]. **Innovations** [KSC⁺14]. **Input** [GWZ14, MMN04, ML04, RP04]. **insight** [dK09a]. **Instabilities** [CDW07, Cod11, HWM99, IMM⁺02, Joó05, IYR06, Gri09c]. **Instability** [GT11, HPP07]. **Instances** [GV12]. **Instant** [WMA12]. **Instationary** [KS02b, MSU01]. **Institute** [FLMS00]. **Instruments** [RS11]. **Insufficient** [KS00]. **Insulator** [CRS06]. **Insulators** [SKvR01]. **Insurance** [Hol11g].

Integer [CHM12]. **Integral** [Ano08b, BYJ08, Bon02, BV98, Bru03, CL12b, DD03, ERO99, GP03, HD03, HKS06, HJHLP14, SMT08, Yin09, iYN02].
Integrals [GO14]. **Integrated** [KRSS06, MDTC08, MS99, Tis01, ELOD11].
Integrating [AR99]. **Integration**
 [BD07, BZ04, CDWW01, DLM14, DFF11, DB08, Fal07, HR08, JM99, Klo01b, Klo01a, PD99, PZ07, RH13, SR05a, SW15, UWN⁺15, Wei03]. **Integrators**
 [HL99, Lei99, NS99, NR99]. **Intelligent** [WS03]. **intensive** [EdDB11]. **inter**
 [Wil11]. **inter-particle** [Wil11]. **Interaction**
 [ASB⁺06, BC09b, BBMU13, BGKM15, BUM⁺15, BBM06, BS06, BMS10, BBGM10, BKK⁺15, CZC11, Che00, CDH⁺00, DDFQ07, DR06, FCH⁺14, GTK06, GKEK10, GL06, GL10, Hal04, HR10, HSGI10, HT06, KSS15, KB08, LM11a, LBCP02, MB10, MTM05, OS11, RR10, SHY06, SSBP10, SKD06, SS05b, TH06, THR⁺10, THM⁺10, VC05, Vie06, WGG06, WGKM10, Wen08, YZ11, vZB10, HJJ⁺12, LOR09, Qui11, Sel12]. **Interactions**
 [HMWZ99, KD02, KW08, MNW08, TSSA06, TA07, TPM02, CKB11].
Interactive [BBB⁺13, GT08, KMR13, LKYJ00, TKG⁺00].
Interconnecting [LS05, LOSZ07, Pec13b]. **Interconnects** [KKJ⁺01].
Interdisciplinary [FLMS00]. **Interface** [CP05, CH11, ENS03, EM15, FNSW05, FPR10, GJMN05, GK11, GGN07, KW98, KW04g, KW04j, LN15, Lui11, MYN⁺02, NZ08, RMSB05, Thi00, XZ11, Zum09, dBvZB10, ALM12].
Interfaces [BFM⁺99, DK09b, GES06, JT07, SZ07, Sch03b, YR05]. **Interior**
 [AHL09, AB05, AZ11, BGM03, BEFL03, Bre12, BMS15, CGL11, DLZ08, FO09, GO11, HKOS09, LW07b, MNW⁺03, OQ11, Wan13, Zum08].
Interior-Point [AHL09, BEFL03]. **Internal** [KB03, LPK02, MRRS99].
International [BCM02, BFJ⁺05, BDZ02, BDZ99, DHL⁺99, ERT12, HKOS09, KOR99, SG02, vRGH01]. **Interpolation**
 [BR11a, BG11, FGGZ11, Gás00, Gás11, HA15, KS98, LSL05, Tai05, dBvZB10].
Interpretation [NLC08]. **Interpreted** [BPV08]. **intersection** [LBB09].
Interval [Fis15]. **Intra** [VAvA10]. **Intra-Osseous** [VAvA10]. **Intracellular**
 [NRWF08]. **Intraday** [GGG13]. **Introducing** [OBB⁺05]. **Introduction**
 [Ano05q, Ano08v, Ano09r, Beh06h, BGHvBW03b, CHM11, CM12, Cou00, Hol11e, Isk04c, Joh04e, KOR99, Lan97e, Lan03f, LeF99, Neu05, Per99, Run05, Sch03e, vR01e]. **Intrusive** [LDHS13, TS15, Bar13, FDP15].
Invariant [BG11, CV05a, PL11]. **Invasion** [FfToNiBA⁺03]. **Inverse**
 [ADD⁺03, BHL08, BA01, CGP08, CM03b, Dao07, ESS14, FMP14, HLTT14, JMR⁺02, Kir03, MR00, NP12]. **Inversion** [BU13, CD08b, RB10, TR07].
Inverted [ST05]. **Investigate** [RS11]. **Investigating** [MSW⁺06].
Investigation
 [BM01, BBC⁺14b, BFL07, CDW07, KB03, VL12, LN15, WO07].
Investigations [Joh04l, MK03]. **Inviscid**
 [GHM11, Gov13, IT09b, SUGL09, VC05]. **Invoking** [FRXT99]. **Involving**
 [AC05, BHOP14, CG15, JT07, LDWK99]. **Ion** [AMW02, KSW02, SSA⁺14].
Ion-Induced [KSW02]. **Ion-Ion** [SSA⁺14]. **Ionization** [Mel09]. **Irregular**
 [BGN05, DKW08a, GWZ14, Rün06, Wid09a]. **Irregularly** [Beh06i, Beh06j].

Isogeometric [BSS14]. **Issues** [Ano08i, Beh06i, BG03, VDAH10, vVVK10].
Iterated [AN02]. **Iterates** [Bog11]. **Iteration** [GFS06]. **Iterations**
 [EF00, GK07, vZB10]. **Iterative**
 [AB00, ABT99, Ano08x, Ano08-29, Ano08-33, Ano08-34, AKO05, AZ11, Dis05,
 EG12b, KJ02, KW04h, KRW07, KLGR05, LO12, MT05, MS07, Mar07, Mir08,
 Pec14, SHH⁺01, ST00, Woh01d, Woh01c, WH14, Zun03, vdESvG05, TDV11].
IV [GS02c, GS08d].

JACO3 [GP00a]. **Jacobi** [AA00, HLS00, WHHW11]. **Jacobian**
 [CG15, CXX12, GP08b, HS06a, KB12, RS12, YT12b]. **January** [CFH⁺03].
Japan [BCM02]. **Java** [Art00, PQD12]. **JCAD** [Yip09]. **Jean** [Amm08].
Jean-Claude [Amm08]. **Jet** [vdHB10]. **Jets** [TB07]. **John** [FLMS00]. **Joint**
 [FLMS00]. **Jointed** [MGB02]. **Joints** [Kam02]. **journal** [Yip09]. **Jülich**
 [FLMS00]. **July** [BFJ⁺05, HKOS09]. **Jump** [AHZZ13, GH13b, Kie12].
Jump-Diffusion [GH13b, Kie12]. **Jumping** [BKS07, KW04k, NØ09].
Junction [PBG08]. **June** [AHE13, BFJ⁺05, HR11, KBH15]. **Just**
 [Kwo11, WMA12]. **just-in-time** [WMA12].

K-Means [GZ08b]. **K-Way** [YT12b]. **Kalman** [ESS14]. **KdV** [BvdW11].
Kelvin [CM09]. **Kernel** [Che02, FY13, HM02, JT05, JT07, LSL05, TMB15].
Kernel-Based [FY13]. **Kernels** [BdS07, Dav06, HH00, NCF08, YT12b].
Key [Beh06a]. **ki** [DW07]. **Kiel** [CFH⁺03]. **Kind** [Hu08]. **Kinds** [Fun97c].
Kinetic [BFM14, IT09b, PD03, RVD11, SH11b, TKH14, SVM11, TK11,
 Van09a, Van09b, AD11, Per99, Ska11]. **Kinetics** [GLK03, LR11, FS11].
Kirchhoff [BDyS15]. **KM** [GFS06]. **KM-Method** [GFS06]. **Kohn** [SG14].
Koiter [Ano02v]. **KOP3D** [KR09]. **Kou** [GH13b]. **Krasovskii**
 [Bli04, Kha04]. **Krylov**
 [BG03, YC11a, Ano05r, ACvdE⁺05, DVH01, EF00, GBG⁺05, MKR00, WO00].
Krylov-Subspace [EF00]. **Kungliga** [EJHS00]. **Kutta** [HKL15, PJ07].

Laboratory [WLP⁺06]. **LabVIEW** [GF12]. **Lagrange**
 [RMSB05, Ano08w, BBMS05, BG03, LW05]. **Lagrangian**
 [APE05, DK07, GKW14, GC07, LUN11, LP09, LP11, PP03]. **Lagrangians**
 [DH05b]. **Laguerre** [AQ14]. **Lake** [KBH15]. **Lamé** [KW04b, LC11]. **Lamina**
 [DMD99]. **Laminar** [TH06, vVVK10]. **Laminated** [SC13]. **Laminates**
 [vdM10]. **Lanczos** [Gut00]. **Lanczos-Type** [Gut00]. **Land** [MN12]. **Landau**
 [DHHS05]. **landscapes** [MLV09]. **Langevin** [Akk06]. **Language**
 [AKO05, BB06b, CL06a, PS08, Aln12, HM12]. **Languages**
 [BPV08, EW08, WB12]. **Laplace** [CD08b]. **Laplacian**
 [FMP14, KW04a, KS13, OVM10]. **Large**
 [AHK07, ABFL00, AQ14, BMS05c, BEFL03, BGHvBW03a, BGHvBW03b,
 BFL07, BA14, BZ12, CGDV07, CB08, Dav06, ENOD99, GGH11, GMM11,
 GL05, HPP07, Hut04, Joh04f, JG99, KLIM07, KiSO⁺11, LSL⁺00, LBCP02,
 MHB07, MS05c, MNP07, MI07, ÖB06, PDH07, PYA09, PD11, PTD11,

PBG08, RL11a, SRPD06, SPS⁺03, SGP07, SMGR07, TIN⁺11, The11, TGEM09, VDDP07, WGG06, WT10, YPA⁺11, Zao08, vdHB10, Med09].

Large-Eddy [AHK07, HPP07, LSL⁺00, MHB07, MNP07, PDH07, RL11a].

Large-Scale [BMS05c, BGHvBW03a, BGHvBW03b, Dav06, LBCP02, MS05c, ÖB06, PYA09, PBG08, SRPD06, SPS⁺03, Med09]. **Laser** [HH03].

Last [RJB03]. **Lattice** [AC11, BW09, BFJ⁺05, BBK⁺07, DLT14, Fle05, FLMS00, GTK06, HJL00, Kal12, KPR⁺06, LQW02, MLI07, Med00, MLB11, Neu05, PL11, Pea05, SV11, SKTR02, TPR09, ZFB02, dK09a, MR03].

Lattice-Boltzmann [GTK06, MLI07]. **Launch** [KCO09]. **Lausanne** [ADK⁺15]. **Laws** [ACD02, Bar00, Bar13, Beh06d, tTBLvDP15, CDM05, DPL13, EKS99, FS08, FLST00, GP11, KSM03, KOR99, LeF99, MMRD04, MSS13, Mü03b, PDL11, TSM14, Tza99, VC05, Vil05, Wir14, FS11]. **Layer** [AQ14, FM11, GO11, KSM03, OQ11, RL11a]. **Layer-Adapted** [FM11, RL11a]. **Layers** [BT11, CGL11, DS11, FO09, FM11, Hag03, Hal07, HKOS09, KS09b]. **Layout** [Jac14]. **Lazy** [YT12b]. **LBM** [GKEK10]. **Lead** [Gus00b, Gus00c]. **Learn** [Fle05]. **Learned** [EKN15, HM12]. **Learning** [GK14, JGE06, Yin08]. **Least** [Ano08x, Fas02, GD10, GB15, HLS00, Mon00, GH11]. **Least-Squares** [Fas02, GD10, GB15, Mon00]. **Leibniz** [Chr12]. **Length** [Abr04, BOT02, Kys09]. **Lessons** [EKN15, HM12]. **Level** [BG98, BC11, BM01, BK15, BUM⁺15, DMBS06, DVH00, DNSS13, DG09, Fai02, Gás02, HSMS11, KT05b, LT02, LC11, MC05a, MS06, Pec13e, Sch11a, Wan13, vZB10, Gás15, Jun98, MSS13, Tu07, Yse13]. **Levels** [DW07]. **lib** [HH06]. **Library** [FJY06, MLG08, Vel00, CKB11, LWH12, HH06]. **Life** [EG08, Kam02, NPLM01]. **Ligand** [HMWZ99]. **Like** [LL00, BGOD05, PG11a]. **Like-Charged** [LL00]. **Likelihood** [BG08, DFM⁺14]. **Limerick** [HKOS09]. **Limit** [LBtM⁺01, PD03]. **limited** [GKKS07]. **Limits** [Ber99a, SB99a, SB99b]. **Linear** [ABT99, BMS05b, BM02a, BDOR04, BC02b, BIA14, CV05a, Dat04, DDG11, DFR01, DM11, Dra11, DLT14, Fal00, FR00, Fre05a, GT08, GV07, GJ09, GZS07, GK06, GH11, GP02, HFHK15, HH15, HKL15, Joh04m, KKZ13, KTB03, KPJ13, LB05, Lun04, LO12, PS07, PDH08, PD11, RSR04, Saa07, San08, SHH⁺01, Sch03f, SK03, SL00, Ste15, Ste98, The11, YT12b, YEÖ04, vR01g, vR01h, vdESvG05, Fal05, MKR00]. **Linear-Drive** [BMS05b].

Linearly [APJ09]. **Lines** [HHS⁺01, NS02]. **Link** [BW03b, Bor05b, DHHS05].

Links [Wer06]. **Lions** [Kwo11, SIR08]. **Liquid** [BWLA02, EK02, PD03, Yab02]. **Liquid-Solid** [EK02]. **Liquids** [DB12].

Lisp [Neu03]. **living** [Cle09]. **LMI** [Bli04]. **LNA** [SMGR07]. **Load** [BCT⁺04, CMEA11, HDA⁺04, LT05, TDF06, WS02]. **Loads** [SDS02].

LOBPCG [LAOK07]. **Local** [Ano08-27, Ant05, AO07, BCL15, Cas00, Cod11, CLP09, DAC00, DHW02, FGGZ11, FKMS08, FM11, Gro08, HJHLP14, JR13, Jun15, Kno09, MJ11, MAM07, Tob09, UWN⁺15, WH02, AES05, MO11, MBM09]. **Localised** [Daw05]. **Locality** [GV12]. **Localization** [CRS06, MS06]. **Localized**

[EE08, SMGR07]. **Locally**
 [DF11, DLM14, GB15, Löw09, Mü03f, Shi11, CC09]. **locally-refined** [CC09].
Locally-Uniform [Shi11]. **log** [LB02]. **Logistic** [LDWK99]. **Lognormal**
 [ES14]. **Long** [EHR12, JM99, Sch99a, TMPM02]. **Long-Timestep** [Sch99a].
Longitudinal [MGB09]. **Loose** [LCYB06]. **Loosely** [CvG10]. **Lossfree**
 [SW01]. **Lossy** [HHS⁺01, SW01]. **Low**
 [AKH08, Ano08y, BGK14, Bet99, DKK09, GRF01, KFMK05, KBS⁺99,
 Lub14, PDH07, SR08, SDP98, TK05, Bel05, LPSB09, MB09b].
Low-Numerical [PDH07]. **Low-Rank** [Ano08y, BGK14, Lub14]. **low-speed**
 [MB09b]. **Lower** [Bre07, Kuz09]. **LPRH** [WH02]. **LPRH-** [WH02]. **LTE**
 [Sco06]. **LU** [LGK07]. **Lumped** [FP07]. **Lyapunov** [Bli04, Kha04, 1YR06].

M [GS02a, Sei07, TWW12]. **M-Matrices** [Sei07]. **Mach**
 [Bel05, SDP98, TK05]. **machinery** [LOR09]. **Machines** [Rie11]. **Macro**
 [BB06b, CKM⁺13, Lud03]. **Macromolecular**
 [DHL⁺99, GS02a, LCE⁺06, Mez02, SG02]. **Macromolecules** [SG02, TL06].
Macroscopic [BW03a, CLS12, Wal03]. **Magnetic**
 [DVH00, Klo01b, Klo01a, KiSO⁺11]. **Magnetics** [GHLSR08]. **Magneto**
 [CDWW01]. **Magneto-Quasistatic** [CDWW01]. **Magnetodynamic**
 [Dul01]. **Magnetohydrodynamics**
 [Alt11, Kan07, ODCK07, PPC07, RS12, RP08, SCRK09]. **Main** [MTM05].
Major [BB02]. **Make** [PS08]. **Management** [AL03, FS08, Mü03c, NPS02].
Maneuver [Sah09]. **Manifold** [BUM⁺15, PL11]. **Manifolds**
 [BR14b, GI08, GS08a, GZ08a, GKWZ08, Yin08]. **Mantle** [TS02, VCR12].
Many [NL05, Voj06]. **Many-Particle** [Voj06]. **Map**
 [LMR11b, RDD⁺14, RL11b]. **Mapped** [RS12, CL05a]. **Mapping**
 [BUM⁺15, KT05a]. **Mappings** [KW04b, PBF08]. **Maps**
 [GS08a, GZ08a, GBM06, HH00, NLC08, Yin08]. **March**
 [ABC⁺14, BDZ02, BDZ99]. **Marching** [DBZ15]. **MareNostrum**
 [HVG09, TGSS09]. **Margin** [JGE06]. **Marginally** [Was11]. **Markov**
 [FB13, Kal12, NR14b]. **Mass** [BBM⁺12, JM12, KFMK05, KEK14, KHW15,
 Tay11, YLT05, Yse02b, Yse02a, EK14]. **Massive** [DL11, FK02]. **Massively**
 [BKK⁺15, FJ00, WG05, GMM11, HVSC11]. **Matching** [Ano08-28, BCKZ13,
 DK09b, FNSW05, FS04, GJ09, Rou09, BBMS05, GHK07, JB07]. **Material**
 [Jun15, SW06b, Zab00, Daw05]. **Materials**
 [CRS06, DS15b, GM00, ZTJ09, LBB09, MO09, Van09a, Van09b, Yip09].
Mathematical
 [BCM02, Beh06n, LL09a, CLS12, HH01, Joh04h, Kas06, LL09b, MM11,
 Sch09, SNT03a, TS02, TV99, VAvA10, EK14, Tur99g, BCM02].
Mathematics [BTH⁺02, LM11b, ADK⁺15]. **MATLAB**
 [BV08, HWB15, PFG08, WB12]. **Matrices** [Ano08u, Ano08y, Beb08b, Bv01,
 CXX12, FMP14, Gus00b, Gus00c, HS06a, Le 05, Sei07]. **Matrix**
 [Ano08y, DH05a, FMP14, Gil08, HKK05, HKS06, KL08, KB08, Kub06,
 LPK02, LS09b, OR12, Olv11, YT12b, vdESvG05, vdV00, van00, KKL⁺12].

Matrix-Valued [Olv11]. **Matrix-vector** [vdESvG05]. **Matter**

[Ano97, Ano98a, Ano98b, Ano99a, Ano99b, Ano99c, Ano99d, Ano99e, Ano99f, Ano99g, Ano99h, Ano99i, Ano99j, Ano99k, Ano99m, Ano99n, Ano99o, Ano00a, Ano00b, Ano00c, Ano00e, Ano00f, Ano00g, Ano00d, Ano00h, Ano00i, Ano00j, Ano01a, Ano01b, Ano01c, Ano01d, Ano01e, Ano02a, Ano02b, Ano02c, Ano02d, Ano02e, Ano02f, Ano02h, Ano02i, Ano02g, Ano02j, Ano02k, Ano02m, Ano02n, Ano02o, Ano02p, Ano02q, Ano02r, Ano02s, Ano02t, Ano02l, Ano02u, Ano03h, Ano03a, Ano03b, Ano03c, Ano03d, Ano03e, Ano03f, Ano03g, Ano03i, Ano03k, Ano03l, Ano03m, Ano03n, Ano03o, Ano03p, Ano03q, Ano03j, Ano03r, Ano03s, Ano03t, Ano04a, Ano04b, Ano04c, Ano04d, Ano04f, Ano04g, Ano04h, Ano04i, Ano04j, Ano04e, Ano04l, Ano04m, Ano04n, Ano04k, Ano05a, Ano05b].

Matter

[Ano05c, Ano05d, Ano05e, Ano05i, Ano05j, Ano05k, Ano05l, Ano05m, Ano05n, Ano05o, Ano06a, Ano06b, Ano06c, Ano06d, Ano06e, Ano06f, Ano06g, Ano06h, Ano06i, Ano06j, Ano06l, Ano06m, Ano06n, Ano06o, Ano06p, Ano06q, Ano06k, Ano06r, Ano06t, Ano06u, Ano06v, Ano06w, Ano06s, Ano06x, Ano06y, Ano06z, Ano06-27, Ano06-28, Ano07a, Ano07b, Ano07c, Ano07d, Ano07e, Ano07f, Ano08c, Ano08d, Ano08e, Ano08f, Ano08g, Ano08h, Ano08m, Ano08n, Ano08o, Ano08p, Ano08q, Ano08r, Ano09a, Ano09b, Ano09c, Ano09d, Ano09g, Ano09h, Ano09i, Ano09j, Ano09k, Ano09l, Ano09m, Ano09n, Ano09o, Ano09p, Ano10a, Ano10b, Ano10c, Ano10d, Ano11a, Ano11b, Ano11c, Ano11d, Ano11f, Ano11g, Ano11h, Ano11i, Ano11j, Ano11k, Ano11e, Ano11l, Ano11m, Ano11o].

Matter [Ano11p, Ano11n, Ano11q, Ano11s, Ano11t, Ano11u, Ano11r, Ano11v, Ano12a, Ano12b, Ano12c, Ano12d, Ano12e, Ano12f, Ano12h, Ano12i, Ano12j, Ano12g, Ano12k, Ano12m, Ano12n, Ano12o, Ano12l, Ano12p, Ano13a, Ano13b, Ano13c, Ano13d, Ano13e, Ano13f, Ano13g, Ano13h, Ano13i, Ano13j, Ano13k, Ano13l, Ano14a, Ano14b, Beb08a, Beh06f, BMPC14, Fun97b, GDRT14b, GDRT14a, HR14, Hol11d, Isk04b, Joh04d, KW04f, Kre09, Kre05a, Lan97c, Lan03d, LBR14, Mat08b, Mül03e, Pec13c, SSA⁺14, Sch03d, Ull14, Urb02b, Woh01b, ZC11, vR01d]. **Maximum**

[Ano08z, AO07, DFM⁺14, JGE06, LS09a]. **Maximum-Entropy** [AO07].

Maximum-Margin [JGE06]. **Maxwell** [ASS09, Bof03, EGLS14, Buf03, CHM11, CD03, Dem01, Dem03a, Dem03b, DLM14, DEGL11b, EDG⁺14, Fom03, HKL⁺01, HM08, HSZ13b, KWH00, Mon03, RV02, War00]. **May**

[DHL⁺99]. **McCormick** [BMN12]. **MD** [JM99, MYN⁺02, PBS⁺99]. **Mean** [Dar06, DHHS05]. **Means** [Beb08b, GZ08b, SBMD06, Med09].

Measurements [AGH15]. **Mechanical**

[GTD08, IAD09, Klo01b, Klo01a, KGSW12, RSS99]. **Mechanics**

[AC08, BCM02, GKW14, GACD05, HÅ09, HVG09, Lan97b, Lan97h, Lan03c, Lan03i, Le 07, SE03, YML15, Cle09, HJD⁺12, ØW12a, HÅ09].

Mechanics/ [HÅ09]. **mechanisms** [MBM09]. **Media**

[Bal06, Bas03, CKM⁺13, CTD05, CW05, Dav06, DEGL11a, EW05, EG12a, EHR12, FNSW05, GL07b, Kan99, KS02b, KGSW12, LDWK99, Lud03, MH15, Nor09, SDSU01, SBMD06, Zun03, dNKS99, CC09, FLTD09]. **Medical**

[BW09]. **Medium** [ASB⁺06, BHL08, BH00, Gan06, Wan00]. **meets** [KS09a]. **MEGAFLOW** [Kro02]. **Melt** [Dan03, ESBD02]. **Melted** [GE02]. **Melting** [GLK03]. **Melts** [Her03]. **Membrane** [BCDF06]. **Membranes** [BWK06]. **Memory** [And00, Dei05, GV12, Jac14, KSGW00, Mül03c, OK11]. **MEMS** [HR10]. **Mesh** [BN13, Bar05, Ber03, Cho05, Chr06, Daw05, FGR02, FK11b, FP15, HDF11, HHR08, Hay11, Hen05, Jun02, Jun15, LP03, LL05, MLD05, PDH07, POB13, PPC07, PLW05, PMSK00, SJCM05, TIN⁺11, dBvZB10, dFO09a, CL05a, GBG⁺05, MDC11, MP05, Sch03a, TD11b]. **Meshes** [ASFB99, Bar99, BLT⁺11, CCGL00, CH11, CLP09, DK11, DZ05, FM11, HH14c, KFD07, KB07, KRT07, LPH00, LGM⁺00, PR14, RL11a, SS02, Shi11, Ste98, TD11a, XGL05, YZ11, BLSO09, CC09, GA09]. **Meshfree** [AC08, AD11, BD07, BIK02, BP13, Bru11, CO13, CW05, CHP⁺07, EG08, FM05, Gás11, Gov13, GS02b, GS05, GS07b, GS08d, GS11c, GS13b, GS14, Isk04d, NZ08, RB08, RP08, RH13, SC13, TA07, Wu15, XB05, ZLL02, ZSS⁺15, TK11]. **Meshing** [Ban07, BN13, BK01]. **Meshkov** [HPP07]. **Meshless** [BB02, Ber07, FB13, GZS07, Gás02, KM12b, LHC02, MDTC08, MJ11, MO11, OM08, TLY02, RVD11, SVM11]. **Mesosopic** [MR03]. **Message** [PH12, PBS⁺99]. **Message-Driven** [PBS⁺99]. **Message-Passing** [PH12]. **Metal** [CRS06]. **Metal-Insulator** [CRS06]. **Metastability** [EVE04, HS06b]. **Metastable** [FSDC02, GDRC02, SFMF05]. **Method** [AM09, AA04, AS07, AAG11, AR06, APE05, Ano08w, ABV15, ABM00a, AD11, ABM00b, AYM11, AIMY11, AP08, AZ11, Bad08, BYJ08, BG98, BP14, BGOD05, BR00b, BK15, BIK02, BGK⁺99, Ber07, BF02, BIM05, BG03, BU13, Bv01, BLR15, BR11b, EGLS14, BPK11, BBT05, Boy11a, BH08b, BCKZ13, BMS15, BDyS15, Bru11, BMR03, BZ12, CLZ08, CO13, CC12, Cas00, CL12b, CL08, Che05, CW05, Che11, CHM11, CH11, CS03b, CGLL05, CRS06, CD08b, CGG08, DBLL15, DAC00, DVH00, DLM14, Des00, DPL13, DK07, DL02, DP07, DN08, DPR08, DFF11, Dra11, DIV00, DW02, DP05, DB08, DLT14, EW05, EK02, EP11, EG08, EM15, FK08, FB13, Fal07, FLLA05, FS13, FCH⁺14, FL05, FGR02, FKAF11, Fun97e, GHK07, GLYB07, GP08a, GR11a, Gás13, Gás15]. **Method** [GTK06, GFS06, GH11, GWC11, GACD05, Gov13, GBS02, GS02c, GO05, GS07c, GS99, GK09b, GP11, GTD08, GRF01, GWZ14, HKK05, HFHK15, HM02, HSMS11, HHR08, Hay11, HP06, HF02, HK02, How05, HC05, IT09b, IMM⁺02, Izv99, JM99, JKAG15, Jun11, Jun15, KN02, KO08, KO11, KJ02, KP07a, KTC07, KK00, KKZ13, KP14, KW04d, Klo01b, Klo01a, KS11, KH14, Koy11, KT08, KB08, Krz05, KHD05, Kuh02, Kwo11, LCD07, LP09, LP11, LWL11, LS00, LPKF07, LKL13, LMW12a, LKK00, LMR11a, LMR11b, LLR11, LG09, LG11, LC02, LKR05, LQW02, MJ11, Mar07, MD08, Mar09, Mar05, MO11, MR03, MKZS06, MGB02, MP08, MT02, MTM05, MH03, NR07, NDBG14, NS02, NCF08, NR02b, OQ11, Of08, OSF11, OK11, OM08, OMS11b, PG07, PG11a, PDH07]. **Method** [POB13, PZ13, PPEdD14, PV98, PMSK00, RE02, RR10, RHH00, RW00, RY14, RZ03, RMSB05, Rou09, SIR08, SZ07, SHY06, SCMR13, Sch03a, SK00, Sch03g, Sch03i, Sch03k, Sch08b,

Sch11b, Sch13b, SZ15, SHM06, Sei07, SBMD06, TI09, TT12, TA05, TLY02, TK02, TK05, TA07, TD08, TH03, TMPM02, TW03, VM09, VS07, VH07, VNW02, VDDP07, WHHS13, War00, Wei03, WB05, Yab02, YM09, YC11a, YAS+00, iYN02, Yse02b, Yse02a, ZFB02, Zou11, dFO09a, dFS11, vdHB10, vdVvdV00, FK11a, FS11, GTD09, KL12b, PEG11, Qui11, SE09, CKB11].

Method- [TLY02]. **Methodology** [CGP08, TG08]. **Methods**

[AH05, ALKK09, Abd12, AB00, AAGP14, ABG07, Ano08l, Ano08t, Ano08-27, Ano08-29, AHL09, Arb12, ABCM00, ACvdE+05, APJ09, AHE13, BB02, BNT11, BMS05a, BGM03, BH15, Bar07a, BC11, Bar01, Bar99, Bar00, BCH02, Bar05, Bas03, Bau11, BBH+15, BCL15, BC02a, BVX02, BBMU13, BQO05, BD00, BGKW09, BK07, BKS11, BP07, BDH+04, BHLR99, BVB00, Bor00, Bor05b, BLSO09, BR14a, BZ07, Bre12, BGyS13, BED14, Bru03, BR08, BH03, Cai03, Cai09, CNSV15, CL12a, CB08, Che02, CGPT05, CSX05, CHP+07, Che08, CNZ11, CDD+14, CDNQ13, Coc99, CKS00a, CKS00b, CLSS00, CLP09, CGLQ07, D'A15, DHU00, Dar06, Dat04, DVH01, DBZ15, DDFQ07, DDG11, DHL+99, DRV00, DS15a, Dis05, DNR08, DG08, DG11, DEGL11a, DEGL11b, DHK+00, DGS08, DS14, Dub07, EGV11, ENOD99, EDG+14].

Methods

[ERL05, EHR12, EGH+14, EG12b, EF00, FNSW05, Fal00, FR00, FO09, FY13, FL05, FLST00, FW07, FBHL00, FP07, FM05, FP15, GS07a, GS02a, GN07, GH07, GH08b, Gan08b, GGH11, GZ14, GSF99, Gás02, GGN07, GD10, Ger11, GHK+14, GH13a, GK09a, GHL+07, GP02, GS13a, GT11, GS08c, GSS09, Gra06, Gra08b, GS02b, GS05, GS07b, GS08d, GS11c, GS13b, GS14, GL05, Gut00, HW98, Hay11, HKOS09, HN05, HR08, Hen99, HR11, HL07b, Hip03, HKX08, HP09, HJ03, HSZ13a, HIRW05, HL07c, HHR+15, HLS00, HKWX11, HWYY11, HKL15, HEML00, Isk04f, Isk04d, JW15, Jar02, JM12, JS09, JMR+02, Jol03, JT08, JG99, Jun02, JV07, KKM+14, KUM15, KW04h, KW04i, KRU14, KLP14, KB07, KS07, KW02, KW05, KRW05, KP07b, KR07].

Methods [KRP08, KWW08, KLR+15, Kno09, KLGR05, KV10, KPR+06, Kor98, KHP+05, VL12, KL15, KW00, Kre05b, Kuz05, Laa08a, Laa08b, Lam11, LS05, LOSZ07, LDK+08, LT03, LM05, LM03b, LW07b, LZ05, Loi07, LS09b, LS09a, Lui11, LHC02, LO12, MR02, MS07, MZ03, MS05a, MH15, Mat08a, Mav11, MS05b, Mez02, MSS13, MNW+03, Mor06, NLL11, NR02a, Nat07, Nat09, NPC11, NZ08, Nor09, NR14b, ØLT03, OSM11, OK00, ODCk07, PDF11, PR14, PT02, Pec13a, Pec13e, Pec14, PLL05, PLW05, PDL11, PVC+05, PJ07, PB12, Qad08, RU12, RRG07, RV02, Rod13, RH13, SRPD06, San08, Sar02, SL14, Sch09, SW06a, SG02, SW98, SKTR02, SG14, SAG+06, ST05, SNT03b, SCGT07, Ste07, Ste08, SS05b, TMB15, TS15, TSM14, TZ11, TDBEE11, TXZ09, VG05]. **Methods** [Var05, VZ08, Vil05, WGG06, WPWK12, Wan13, Wen08, WK07, Wil00, Wir14, Woh01d, WKE06, XZ02, XB05, Yan06, YC11b, YZ11, YS11, Zha00, ZLL02, Zun03, Zun08, dDZ14, vR01g, vdV00, van00, Ban13, BD99, BD03, GBG+05, GA09, KBH15, Lan99, Lan03a, PK04, RVD11, SVM11, TK11, WWAK04, vS99, CGL11].

Methods- [Hay11, Zha00]. **Metrics** [Beh06j, Dam08, HBW+06]. **Metro**

[GS08a]. **MHD** [BOT02, CD07, Dis08, Dor00, PDS⁺05, SJCM05]. **Micro** [BD09, CKM⁺13, GHLSR08, GHM15, Lud03, MTM05, TKH14, TK11]. **Micro-brittle** [GHM15]. **Micro-Cracks** [MTM05]. **Micro-macro** [Lud03]. **Micro-Magnetics** [GHLSR08]. **Microarray** [EP08, GZ08a]. **Microbursts** [GS99]. **Microchannels** [AC11, HM11]. **Microdevices** [KGW99]. **Microelectronics** [Kam02, LS99]. **Microfluidic** [AGH⁺08]. **Microhotplate** [HBW05]. **Micromagnetics** [SSS03]. **micrometer** [PAR01]. **Microscopic** [BW03a, CLS12, Cle09]. **Microstructure** [EK02, Wal03]. **Microstructured** [DGH⁺99]. **Microwave** [BM01, Bru11, HHS⁺01, HH03, SHH⁺01, Yak01]. **Millennium** [Tur00]. **Mimetic** [ABV15, FdlPFC15]. **Mini** [GSDP09]. **Mini-Windmill** [GSDP09]. **Minimal** [SHH⁺01]. **Minimisation** [WH14]. **Minimization** [Bad08, BZ07, GSS09, GK09b, Kra08]. **Minimizing** [DKW08b]. **Minimum** [CP05]. **Mining** [FK02]. **MINISYMPOSIUM** [ABG07, EIL08, GN07, GH07, GH08b, Gan08b, GS08c, HKX08, HL07c, HK08c, KP07b, KWW08, Laa08a, Le 07, RRG07, SS07a, SW08, VZ08]. **Miscible** [BDH⁺04, SU13]. **Missile** [IT09b, OMS⁺11a]. **Mistakes** [Qui05]. **Mixed** [Arb12, Bar01, BM01, DM00, DFR14, GHW08, GP02, HP09, JE11, KN02, KS02b, Kuz05, ML03, PS03, Ste15, TSM14, TXZ09, ÜG09, WX13, Zha00, dFS11, HM12]. **Mixed-Level** [BM01]. **Mixed-Precision** [GHW08]. **Mixtures** [BHKV03, HR14]. **MLPG** [AP08]. **MLSPH** [RE02]. **Mobile** [NPLM01, YML15]. **Modal** [SW01]. **Mode** [BMS05b, BMN12, BGK08, Gil08, Rie01, Tad04, BAG04]. **Model** [Alb99, AL03, ABOGB99, AG03, BMS05b, BBC05, Ban05, BBC⁺14a, BRP03, BQO05, BS05, BvdW11, Bra07, BFL07, CH00, CV05a, CGVV05, CV05b, Dan03, Din02, EG12a, FS04, FWGB02, FSXZ14, FN02, Fre05a, GHM15, GMS11, GNS03, GKEK10, GK06, GV12, GSS14, GHT09, GR11b, GH13b, HK06, HDY05, HC00, HW02, Izv99, KHW15, KK09b, KKJ⁺01, LH12, LR11, LK05, LLR11, MN12, MS06, MS05c, Mü103g, MH03, ÖD09b, PS07, PZ13, RB10, Rie01, RK05, SSA⁺14, SB99a, SB99b, Ska11, SA05, SDKI08, SG09, The11, Thu11c, Tis01, TV99, WHHS13, WO07, WP08, WL05, WHH02, XXM06, YC11a, Ano05p, Hak12, LEB05, ME09]. **Model-Order** [RB10]. **Modeled** [KFJ07, KB08, SSA⁺14]. **Modeling** [AHK07, ACS09, Ala11, Amm08, AGH⁺08, BCM02, Beh06a, Beh06l, BVX02, BW03b, BGH02, BvC02, CBL03, CDH06, CJS00, CA04, DBLL15, ELVE04, Ede05, EW08, ELR09, FdlPFC15, FfToNiBA⁺03, GS02a, Gan06, GWC11, HÅ09, HH00, HR10, Hof02, JRG11, KSW02, Lam09, LYK05, MSW⁺06, MD07, NLL11, NÖU09, NW12, PAR01, SG02, SC13, Sit04, SZ10, SN03, TS02, TMWT10, TSSA06, TLO03, UL14, Yak01, YD09, Zab00, dIRY09, GE09, Tsa04, WD09, dK09a]. **Modelling** [AC05, AG03, AK04, Ber07, BWH02, BCDF06, BBTD05, Bra07, LL09a, BS06, BMS10, CL05b, DHL⁺99, FS03, HH01, HFSS06, Hoo03, Isk04f, Klo01b, Klo01a, KBS⁺99, KS04, KPM99, LL09b, MM11, Mei01, MSD00, NP12, SGC07, TZ11, Tsc02, TL06, ENS03, Gri09c, LEB05, Nik05]. **Models** [AC08, Ano02v, ALK13, BMS05b, BFM14, BG08, BCT⁺04, BB06c, BMP14, BW03c, BFL07, CDW07, Con03, DDKP02, DP09, DT15, DVM⁺01, DC12,

FB13, Fas00, FRXT99, GI08, HDA⁺04, HHS10, Hel08, HV05, JW11, JS14, Joh04a, Joh04b, Joh04c, Joh04f, Joh04g, Joh04k, Joh04j, Joh04o, KRSS06, KSG⁺06, KFJ07, LS99, LJTN11, ØEGF05, PL11, PF05, RU12, Roo11, Rün06, SV11, SCMR13, SF08, SNT03a, Ta'00, TPA11, VA_vA10, Vie06, Wal03, YEÖ04, YR05, EK14, Gri09a, Sch12]. **Modern** [SL00]. **Modes** [CM09]. **Modification** [CD08b]. **Modifications** [GFS06]. **Modified** [AH11, Klo01a, Klo01b]. **Modify** [DG11]. **Modular** [AKO05, JM08]. **Modulation** [SP07, MR09]. **Module** [NPLM01]. **Moist** [Tay11]. **Molding** [Ber07]. **MOlecular** [LKYJ00, Abr04, ALK13, BTH⁺02, BLR02, Ber99a, Ber99b, BDH⁺04, DB12, DDJS99, DHL⁺99, Gra14, HL99, ISI⁺99, Izv99, JG99, KLY04, KFMK05, LPK02, LKL13, Lud10, Mei99, NS99, NR99, ÖD09a, OM99, RB08, San02, SB99a, SB99b, Ta'00]. **Molecules** [HBW⁺06]. **Mollified** [IMM⁺02]. **Momentum** [Rin11, MG09b]. **Monolayers** [PD03]. **Monolithic** [HT06, THM⁺10]. **Monotone** [Bog11, MP08]. **monotonic** [DH05b]. **Monte** [AR06, BD09, BDH⁺04, BMPC14, DM05, GKB06, Gen08, GH13a, HMW02, HvS12, Joó05, Kal12, LL00, Lip00, Liu00, MCB02, Mez02, MSS13, MB09b, NR14b, Pea05, PD03, SBMD06, dFJ05]. **Morphogenesis** [LRH03]. **Mortar** [BF02, BP07, BMR03, DP07, DW02, DP05, Fal07, GS07a, GS11a, Kim07, Kim08, KW00, LW05, Le 07, MR02, Mar07, MD08, Mar09, PPEdD14, RXH05, RX07, Ste07, Zun08]. **Mostly** [Cas08]. **Motifs** [CCT02]. **Motion** [BQGC15, SA09]. **Motivated** [GH08b]. **Motivation** [Tur99e]. **Move** [DF11]. **Movement** [KSS15]. **Moving** [AM09, AYM11, AIMY11, BMR03, BFM⁺99, Fas02, GP08b, HHR08, Hay11, JT07, LKK00, YR05, RVD11]. **Moving-Grid** [AIMY11]. **MPI** [HO14, HVSC11, KLR⁺15, KR09, YPAE09]. **MPI/OpenMP** [KLR⁺15]. **MPSalsa** [SPS⁺03]. **Multi** [BMS05b, BFM14, Bir14, BUM⁺15, BCKP00, CMEA11, D'A15, Daw05, DDKP02, DL02, EK14, EdDB11, FSXZ14, Gás02, Gás15, GTD08, HH06, HJHLP14, HC00, JM12, Jou05, Jun98, Kan99, KS02a, Kic98b, KEK14, KHW15, MYN⁺02, MH15, MN05, MNP07, MSS13, Roy01, Sch03a, Sch11a, TOG09a, TG08, WK10, WB05, XCL11, Yse13, ZLL02, vZB10, LEB05, MDC11]. **Multi-Band** [BFM14, Bir14, KEK14, EK14]. **Multi-Block** [TOG09a]. **Multi-core** [CMEA11]. **Multi-Dimensional** [Kan99, Daw05]. **Multi-Domain** [GTD08, XCL11]. **Multi-Field** [MH15]. **Multi-Functional** [MYN⁺02]. **Multi-grid** [Kic98b]. **Multi-Level** [BUM⁺15, Gás02, Sch11a, vZB10, Gás15, Jun98, MSS13, Yse13]. **Multi-material** [Daw05]. **Multi-mesh** [Sch03a, MDC11]. **Multi-Mode** [BMS05b]. **Multi-Network** [BCKP00]. **Multi-parametric** [EdDB11]. **Multi-Perforated** [MNP07]. **Multi-phase** [KS02a]. **Multi-Physics** [HH06, Jou05, TG08]. **multi-resolution** [LEB05]. **Multi-Scale** [DDKP02, DL02, HC00, JM12, WK10, WB05, ZLL02, KHW15, MN05]. **Multi-Stage** [FSXZ14]. **Multi-Time** [Roy01]. **Multi-Trace** [HJHLP14]. **Multi-value** [D'A15]. **Multiband** [TV14, VS14]. **Multibody** [KHD05, RSS99, vS99]. **Multiburner** [SGP07]. **Multicolor** [OK11]. **Multicomponent** [EEGW08, GNS03, ØEGF05]. **multiconstrained** [PE09].

Multicore [LK12]. **Multicriteria** [JM06]. **Multidimensional** [AC08, RSVV08, SAG⁺06, TSM14]. **Multifidelity** [CH03]. **Multigrid** [ABM00a, ABM00b, AHZZ13, BLHJ⁺99, BKV00, BZ07, BCKZ13, BGyS13, CCGL00, CV00, CNZ11, CS03a, DM00, DRV00, DPR08, DHK⁺00, DIV00, EW05, EGV11, FK07, FJ00, Fas00, FL05, FL00, GSF99, Gás00, Gje98, GTS⁺11, GSS09, HW98, HKN98, HT06, HKMR06, HNR99, JM08, KR00, Kic98a, Kor98, KW00, KS98, LPH00, LGM⁺00, LSL⁺00, MZ03, MSD00, Mij00, MPLT00, MKR00, OGWW98, OWWG00, PV98, PvR00, PvR01, SP08, Sch98, SW98, Sei07, ST00, SDP98, SNF00, Thi00, THM⁺10, Vas00, VZ08, WL14, WO00, XZ02, Yan06, YZ11, DRV00, HW98, PG07]. **Multigrid-based** [GTS⁺11]. **Multigrid-Prolongation** [Fas00]. **Multigrid/Domain** [PG07]. **Multigrid/Domain** [FL00]. **Multilayer** [CGG08]. **Multilevel** [ADL...14, Ano08-27, AHL09, BD00, BV98, CSX05, DW98, ED07, GLYB07, GP08a, GH13a, GS13a, GO05, HPS13, HL07b, HvS12, Hu08, IAD09, Isk04e, JMR⁺02, KW04i, KT08, MSD08, Med00, MR00, Not00, PC07, Reu00, SLST07, SV11, SP08, Sch03f, Sch03g, Sch13b, SM11, Tai05, Wag00, ADDdS11, Lan00]. **Multimode** [Ber11]. **Multinumeric** [RY14]. **Multiphase** [EEGW08, KiSO⁺11, Nor09, PTS⁺12, Per11, ØEGF05]. **Multiphase/ØEGF05**. **Multiphysics** [HK08c, MPS05, NHF09]. **Multiple** [AM09, AH05, Ber99b, CMLU12, EIL08, GFS06, HH14b, IF02, KP09, Koy11, MLB11, NR99, ST05, TAA04]. **Multiple-Delay** [TAA04]. **Multiple-Group** [GFS06]. **Multiple-Precision** [IF02]. **Multiple-Time-Stepping** [NR99]. **Multiplicative** [LC11]. **Multiplier** [Ano08w, RMSB05]. **Multipliers** [BBMS05, KP14, LW05]. **Multipole** [BK15, BHLR99, CL12b, CKB11, LOSZ07, NL05, SRPD06, iYN02]. **Multiprocessor** [GK09a]. **Multirate** [Bar01]. **Multiresolution** [ACD02, BCH02, BK07, CB08, CDM05, DBLL15, FK02, FBC05, Isk04f, NCF08, Run05]. **Multiresolution-based** [CDM05]. **Multiscale** [AH05, ALKK09, Arb12, AEKT09, AK04, BCH02, Bra02, LL09a, BIA14, CDW07, DB12, DH02, ELVE04, EG11, EG12a, ERL05, ELR09, EHR12, ERT12, FR11, GS08c, GHLS12, HMP15, HC08b, JE11, JL05, KS09a, KS09c, Kra08, Kre04, LB05, LM05, LL09b, LB02, LLR11, Mü103b, Mü103h, NP12, Nor09, Pec13b, Pec13d, Pec14, Sch13a, Sit04, Sta02, SW05, FK11a, SACP09]. **Multistep** [San08]. **Multivariate** [AH11, FDP15, RMK11]. **Multiwavelet** [KRU14]. **Munich** [BDZ99, GP14].

N [DGS11, LB02, vLD00]. **N-N** [DGS11]. **NAGWare** [NR06]. **Nano** [LKL13]. **Nano-devices** [LKL13]. **nanoparticles** [Tsa04]. **Nanoperm** [Pek03]. **Nanostructures** [OMSA14]. **Nanotubes** [KWKK04]. **naphthalene** [ZPK04]. **NASA** [GK06, TOG09b]. **NASA/** [GK06]. **Native** [PH12]. **Natural** [Dul01, GACD05, LGS06, TGSS09, UL14, YVC07, XCL11]. **Navier** [LDHS13, LPH00, ATK10, AAGP14, AP08, Bar07b, BR00a, BR11b, DIV00, DKK09, Fai02, FL05, FHM05, FBAC11, FM05, FP15, HNR99, Joh04n, KK00, Kuh02, Löw09, LLR11, OB00, PV98, PS14, Pue14, SGT09,

SRSK15, SW05, TOG09a, TOG09b, TK02, TK11, Tur99b, Tur99f, Uri11, VSLMN12, Wag99]. **Near** [BBC⁺14b, CDLL11, KT07a, KT07b, Zou11, BAG04, Sit04]. **Near-Optimal** [Zou11]. **Near-Wall** [BBC⁺14b, KT07a, KT07b]. **Nearby** [Svá09]. **Nearly** [KKZ13]. **Nebulae** [RIM05]. **Necessary** [Joh04j]. **Nédélec** [Amm08, Hie05]. **Need** [Jun02]. **Needed** [Qui05]. **Neighbor** [DS15a]. **NEM** [YR05]. **Nematic** [BAF03]. **nested** [DK11]. **Nets** [GZ08a, Wer06]. **Network** [BGN05, BCKP00, CMEA09, GRF01, SF08]. **Networked** [CMEA11, Fuc00, Leu08]. **Networking** [Hop14]. **Networks** [CvG10, FS13, GDRC02, MDTC08, Mei01, PPEdD14, PAR01, SH11b, TAA04]. **Neuberger** [Bor00, HJL00]. **Neumann** [FLMS00, BKS07, BKS11, CGLL05, DNR09, DW07, GS11b, GP02, GS13a, HL07a, HN05, KT05a, KP07b, Kwo14, Mar09]. **Neural** [GDRC02, Mei01, PAR01, SF08, Wer06]. **Neurobiology** [BTH⁺02]. **Neutral** [Fri04, RSR04, RDD04]. **Neutrino** [MLCM06]. **Neutron** [Clo06, Kan99, Lar06]. **Newton** [BG03, BU13, Che05, DW98, GSS09, HC05, KT05b, MKR00, SW06a, YZ11, YC11a]. **Newtonian** [AC11]. **Next** [Tur00]. **Nickel** [Abr04]. **NIRVANA3** [Zie05]. **Nitsche** [BZ12, CH11, HP06, Jun15]. **NKS** [BC09b]. **NMR** [Fle05]. **Nodal** [OHW07, PZ07, RH13]. **Node** [BK15]. **Node-Level** [BK15]. **Nodes** [Sch11a]. **Noise** [Den02, Wil00]. **Noisy** [Liu00]. **Non** [ACC09, Ano08-28, Ano08-29, AES05, AZ11, BM02a, Bar13, BC02a, Ber09, BBMS05, Buf03, BPJ14, CTD05, CCGL00, DK09b, DK11, DEGL11b, FNSW05, FDP15, GT08, GHK07, GJ09, GK09b, JB07, KT09, Kor98, MS05b, Mor06, MKR00, MT02, NI11, Rou09, RH13, SG14, Sco06, SP07, SAB⁺06, SW06b, Ste98, TS15, Vas00, VL07, WI13, vdHB10, CD03, Fal05, AC11]. **Non-adaptive** [BPJ14]. **Non-conformal** [VL07]. **Non-Conforming** [BC02a, MS05b, RH13]. **Non-Conservative** [GT08]. **Non-Convex** [GK09b, MT02]. **Non-Equilibrium** [ACC09, SW06b]. **Non-Intrusive** [TS15, Bar13, FDP15]. **Non-Linear** [BM02a, GT08, MKR00, Fal05]. **Non-local** [AES05]. **Non-LTE** [Sco06]. **Non-Matching** [Ano08-28, DK09b, FNSW05, GJ09, Rou09, BBMS05, GHK07, JB07]. **Non-nested** [DK11]. **Non-Orthogonal** [SAB⁺06]. **Non-oscillatory** [WI13]. **Non-Overlapping** [CTD05, Ber09]. **Non-Premixed** [SP07, vdHB10]. **Non-Relativistic** [Mor06]. **Non-Self** [Ano08-29]. **Non-Sinusoidal** [KT09]. **Non-Smooth** [Buf03, Kor98, CD03]. **Non-Standard** [Vas00]. **Non-Structured** [CCGL00]. **Non-symmetric** [AZ11]. **Non-uniform** [NI11, Ste98]. **Non-zero** [DEGL11b]. **Non-zero-Temperature** [SG14]. **Nonaffine** [LMR11a]. **Nonbonded** [KD02]. **Nonclassical** [LeF99]. **Nonconforming** [AHZZ13, BHJ07, CH11, DGS11, FW07, GJMN05, HJ08, HJS11a, HJS11b, KRT07, LMR11a, Mar07, SS05b, Zha00]. **Nonconstant** [Dra11]. **Nonequilibrium** [Jar02]. **Nonlinear** [ABC⁺14, Ano02v, APJ09, Bar07a, BIK02, BKS07, BKS11, BB06a, BR14a, BH08b, Bru11, CG15, CGHS11, Cai09, CM09, CO13, DW98, EF00, FBHK15, FW07, Fri04, FP15, GR05, GH08a, GC15, GI08, HH14a, HR08, HV05,

HSZ13a, HO03, HC05, JW15, JSH14, KUM15, KLY04, KLRR14, KZX08, KT05b, LCD07, Lan97f, Lan03g, LSLK05, LYK05, MSS13, MNW⁺03, MP08, MH03, OQ11, RU12, RW00, SCMR13, SF08, Sta02, TN07, Tai05, TA05, The11, WO07, Yin08, YHM⁺03, Lan00, Nar12]. **Nonlinearities** [BKS07, SMGR07]. **Nonlocal** [BLR15, DBLL15, DT15, EL13, Gro08, Izv99]. **Nonmagnetic** [SDSU01]. **Nonmatching** [KL05, Kuz05, MS05b]. **Nonmortars** [Ste05]. **Nonnegative** [HC04, SSH00]. **Nonoverlapping** [SIR08]. **Nonreflecting** [Gro08]. **Nonsmooth** [GSS09, IAD09]. **Nonstationary** [Bau11, FBHK15]. **Nonsymmetric** [SLST07, XL09]. **Nonuniform** [AGH15]. **Norm** [Ano08z, Sch05, Sch08a, Zun09]. **Norm-Equivalences** [Sch05]. **Normal** [Run05]. **Norms** [LS09a]. **North** [LEB05]. **Norway** [HR11]. **Notation** [Chr12]. **Notations** [Joh04h, Joh04i]. **Novel** [Ber11, LGS06]. **NP** [Nau08]. **NP-Complete** [Nau08]. **Nuclear** [KiSO⁺11]. **Nucleation** [oCPiPDSKN03]. **Nucleic** [AMW02, TV99]. **Nucleon** [YLT05]. **Number** [BV08, GS08b, Joh04g, KS09b, LW07b, Pfl00, SDP98, SRSK15, TK05, Bel05]. **Numbers** [Fas00, FA12, GKB06]. **Numerical** [ADK⁺15, ABC⁺14, AHK07, ACvdE⁺05, BCM02, BNT11, BD07, BH00, BGPR02, Bar99, Beh06a, Beh06k, BFF09, BGS06, BHOP14, BIM05, BJ12, BFSW99, BFJ⁺05, BC02b, Bra07, BM02b, BT06, BZ12, CM03a, CG15, CKM⁺13, CC12, CL08, CM12, CDWW01, CD08b, D'A15, Dar06, DD03, Des00, DP09, DHW02, Din02, Dis08, DM14, DH05b, DKB⁺13, DGH⁺99, DMD99, ESD02, EKKvS99, ER02, FK11a, FO09, Fom03, FRXT99, GGH11, GR11a, GHK⁺14, GY12, GH11, GP00b, GP00a, GBS02, GHLS12, GH13b, GGV15, GE02, GRF01, HR10, HHS⁺01, HLP09, HHS10, HM11, HJL00, IF02, JB07, Joh04f, Joh04k, Joh04j, KKLD02, KT05a, KO08, KO11, KP07a, KW04j, Kik02, KB07, KFJ07, Kre05b, LT03, LM11a, LJTN11, LS00, LPK11, LK02, MM11, MZ14, Mat08a, Mav11, MS99, Mü103j]. **Numerical** [MB10, NRWF08, NLL11, NR02a, NÖU09, NS99, Nor05, OQ11, Of08, Oht02, PDH07, Pes06, PKKS11, RV02, Run09a, Run09b, SHY06, SSBP10, SW15, SKD02, SRCB02, ST05, SDS02, SL00, SNT03b, SRR99, SZ10, Svá09, SH11a, TS02, Le 09, TDF06, TPA11, Tis01, TK05, Tor05, TDBEE11, Tsc99, Tur99f, TH06, THR⁺10, THM⁺10, Urb02e, WPWK12, WT09, WGGC09, YM09, ZS09, dNKS99, vR01f, vR01g, vR01h, vVVK10, vdHB10, EK14, Kir12, Lan99, Lan03a, PK04, Per11, vS99, ADK⁺15, ERT12, FLMS00]. **Numerically** [PG09]. **Numerics** [KOR99]. **Nutshell** [Gar13].

O [BHM⁺00, LB02, vLD00]. **OBDD** [KS07]. **Oberwolfach** [BMS05c, KR05]. **Obfuscation** [PBS⁺99]. **Object** [BB03, DKP00, HH00, HH06, HLM⁺03, KKNR05, OK00, TH06, Zab00, ELOD11]. **Object-Oriented** [BB03, DKP00, HH00, HH06, HLM⁺03, KKNR05, OK00, Zab00, ELOD11]. **Objects** [Wie05]. **Observations** [SN03]. **Observer** [FS04]. **Obstacle** [Ano08-35, BDyS15, CNZ11, GHHL14, Zou11]. **Obstacles** [AM09]. **Obtaining** [GKB06]. **ocean** [LEB05]. **Oceanography** [McC06]. **Oceans**

[PB00]. **October** [BCM02, Bän03, BMS05c, HW98, KOR99, SG02]. **Octree** [BFZ02, MBR⁺07]. **Octree-Based** [BFZ02, MBR⁺07]. **ODE** [GTD08, GTD09, LSLK05, NJ00, PD00]. **ODE/** [GTD09]. **ODEs** [Fla06, GTD07, SW06a, SG06]. **Offline** [LMR11a]. **Offline-Online** [LMR11a]. **Oil** [FSXZ14, Lam09]. **Old** [Qui05]. **On-the-Fly-Computed** [SW15]. **One** [FS08, FN02, GHM11, GRF01, HS08, Lip00, Pec13e]. **One-Flavour** [Lip00]. **One-Level** [Pec13e]. **Online** [CVvSW99, LMR11a]. **onto** [Abr04]. **oomph** [HH06]. **oomph-lib** [HH06]. **OOP** [MKZS06]. **Open** [DB12, CKB11]. **Opening** [And08]. **OpenMP** [BGK08, FSXZ14, HO14, HVSC11, YPAE09]. **Operations** [Beh06a, vLD00]. **Operator** [ACvdE⁺05, Bor00, GS11b, GY12, HJL00, KS98, Neu00, PG11b, PQD12, PP12, PF06, PB12, Wen05]. **Operators** [Ano08b, Beh06k, Ber09, DBZ15, DK11, Hu08, HS06b, KW04c, Kuc15, Kuz09, Tai05, TD11a, Wag00]. **Opinion** [SS08]. **OPLS** [FWGB02]. **Opportunities** [HLM⁺03, Wer06, Van09a, Van09b]. **optic** [MR09]. **Optical** [HBZ05, McC06]. **Optically** [SBMD06]. **Opticom** [KH14, WH14]. **Optics** [PDB06]. **Optimal** [AÅD12, ACvdE⁺05, BCX13, BB08, BS05, BGS06, BKV00, BT11, Cas00, CHM12, CGLL05, ERO99, EKKvS99, FV14, GK11, GKW14, GQ11, GMSS08, GGV15, HN05, HR08, Kie12, Leu08, Loi07, MS07, MS99, NR14a, RWS08, RMSB05, SSM08, SU13, SG06, Tsc02, Zou11, BNTT14, HS08]. **Optimality** [GGV15]. **Optimality-System** [GGV15]. **Optimally** [GHHL14, HS06a]. **Optimisation** [BS06, JM08, The11]. **Optimization** [ABG07, AL03, Ano08-30, AHL09, ABV15, BK15, BBDS14, BBMU13, BHOP14, Bet99, BEFL03, BGHvBW03a, BGHvBW03b, BG03, BPV08, BMS10, CBG02, CS03b, CH03, FS03, FV14, GKW14, GWMW02, GK09a, GF03, GS99, GF12, HSGI10, Hop14, JM06, JT08, KT09, KT11, LR11, LDWK99, Lon03, Luk01, MBS15, MNW⁺03, OMS⁺11a, ÖB06, RL11b, SPS⁺03, SSBP10, SW98, SZ09, SJB06, Tsc02, WS02, YHM⁺03, Zao08, KKL⁺12, PEG11]. **Optimized** [Bhj07, CGLQ07, DN07, DEGL11b, Dub07, DG09, EDG⁺14, GN07, GHLSR08, GGH11, GZ14, GGN07, HH14a, Hal07, HJ08, HS08, Hal09, HJS11a, HJS11b, HWB15, Laa08a, Laa08b, Loi07, LS09b, LS09a, Lui11, Mon00, Nat07, Nat09, Qad08, SCGT07, SCG09, SCRK09, VG05]. **Optimizing** [BH06, Bor05a, KL12a]. **Options** [FKMS08, GH13b]. **'OPTPDE** [Hop14]. **Orbital** [KCO09]. **Orbits** [PC06]. **Order** [ASFB99, ABC⁺14, AL03, AMQR14, Atk00, AHE13, BMS05a, BMS05b, BH15, Bär02, BR00b, BBC⁺14a, BBC⁺14b, Bas03, BS14a, Bau11, BBH⁺15, BFF09, BP07, BB06a, BR11a, BS14b, BP13, BMP14, Bor05c, BR14a, BvdW11, Bru03, BR08, Cai00, CNSV15, CGVV05, CD08a, CGL09, Dem01, DLM14, Dit15, Dra11, Dub11, DFR14, EKN15, FS03, FLLA05, FdIPFC15, Fis15, Fre05a, FP15, GB15, GWC11, GT11, GHH14, GMCL14, GBM06, GP11, HM11, HR11, Hu08, HKL15, Kic98a, Kic98b, Ler14, LS00, Mar07, MD08, Mar09, Mav11, NDBG14, NS02, NCF08, OHW07, OGWW98, OM08, PDL11, RB10, SMPZ07, SRCB02, Shu99, SR08, TSM14, Vie06, WL14, WSZ11, Wir14, YS11, YT12a, dFS11, vdHB10, BD99, KBH15]. **Ordered**

[HKN98]. **Ordinates** [How05, Mor06]. **Organising** [Yin08]. **Organized** [CCC⁺03, GDRC02, HC00]. **Orientated** [MNO⁺05]. **Orientation** [AC05, HW02]. **Orientation-Dependent** [HW02]. **Oriented** [AAG11, BB03, DKP00, HH00, HH06, HLM⁺03, KKNR05, OK00, VH07, Zab00, ELOD11]. **Origin** [CLS12]. **Orion** [TMWT10]. **Orthogonal** [FS03, HV05, PTD11, SAB⁺06]. **Orthopedists** [YML15]. **Orthotropic** [HKK14]. **Oscillating** [VS07]. **Oscillations** [DMD99, FfToNiBA⁺03, Wat09]. **Oscillators** [HM01, LBtM⁺01]. **Oscillatory** [AEKT09, AE12, AR99, BIA14, CC12, NS01, Olv11, WI13]. **osmoles** [GHT09]. **Osseous** [VAvA10]. **Other** [Fun97c, Tur99g]. **our** [dK09a]. **Outflow** [AAGP14]. **outlook** [Tur99a]. **Output** [Fri04, Mac00]. **Outputs** [GP03, PDH08]. **Overcoming** [IMM⁺02, WCJ06]. **Overland** [DBW12, UWN⁺15]. **Overlap** [ACvdE⁺05, Bor05b, DG08, GZ14, Neu00, Sar02, Wen05]. **Overlapped** [Che05, FZ07]. **Overlapping** [BH15, Cai03, CLZ08, Cai09, CTD05, DKW08b, GR05, GS08b, Hen05, KB07, KS07, Kuz09, LT02, MP08, OHW07, PPRZ07, VG05, WHHS13, Ber09]. **Overloading** [PQD12, PP12]. **Overloading-Based** [PP12]. **Overrelaxation** [dFJ05]. **Overset** [CGLQ07, IWK⁺11]. **Oversetting** [TOG09a]. **Overview** [Buf03, DHS07, HK08b, Lar06, OM05, Swa00, WG05].

p [BP08, DPR08, EM08, GKEK10, GO05, MHBM06]. **p-FEM** [BP08, EM08, GKEK10]. **p-Multigrid** [DPR08]. **p-robust** [GO05]. **Package** [AÅD12, AKO05, BH00, MLG08, OM05, Med09]. **Packaging** [CL05b, HSMS11]. **Packed** [BGN05]. **Packet** [Gra14]. **Packing** [CCT02]. **PACX** [KR09]. **PACX-MPI** [KR09]. **Padé** [Fre05a, GS11b]. **Padé-Type** [Fre05a]. **Pairs** [PJ07]. **Panel** [Ano06-29, SS08]. **Papers** [AHE13, HR11, KBH15]. **Parabolic** [Ano08-31, BGS06, CG11, Dao07, EP11, GL07a, GO11, HH14a, HKL15, KRT07, LP03, LG09, Mac00, MP08, PJ07, RDD⁺14, RW00, SSM08, Shi11, SS11, VG05, VS11, Lan00]. **Parachutes** [TMWT10]. **Paradigm** [Ban07]. **Parallel** [AM09, AR02, ACS09, AB00, AG15, And00, ABM00a, ABM00b, Ban05, Ban07, BN13, BLHJ⁺99, BGK⁺99, BD09, BGK08, BUM⁺15, BLT⁺11, BT06, BKK⁺15, CAL03, CL06b, Che05, CLY⁺14, CC09, CMEA09, Chr06, Clo06, CvG10, Daw05, DFR01, DP07, FJ00, FJY06, FLST00, FL00, FRXT99, GH07, GSF99, GHW08, GBS02, GKKS07, GTD09, GD09, HKL⁺01, HG09, HBCC14, HO14, HM06, HVG09, How05, HKMR06, HNR99, HC05, IT09a, IT09b, IWK⁺11, Jun98, Kan99, KT11, KSG⁺06, KCO09, KR09, KSS15, KKNR05, KPR⁺06, Koy11, LCD07, LPSB09, LM11b, LBCP02, Lon03, LG09, LG11, MT05, MCBD02, MC05a, MG09a, ME09, MAAB06, MBS15, Mey06a, MNO⁺05, MBG11, NRW08, NÖU09, NI11, ØEGF05, OMA09, OMS⁺11a, OM99, OK11, ÖD09b, PG11a, PF05, PE09, PEG11, Pes06, PBS⁺99, PDS⁺05]. **Parallel** [RSVV08, RS06, Rün06, SGT09, Sah09, Sch03g, SGP07, SE03, SNF00,

SAM⁺11, Swe06, TI09, TIN⁺11, TOG09a, TOG09b, TR07, TDBEE11, ÜG09, Voj06, WSZ11, Wat09, WT09, WG05, WHHW11, Wie05, Wil11, WGGC09, WHH02, XCL11, Yan06, YPA⁺11, Zum00a, CKB11, EdDB09, ELOD11, GMM11, HVSC11, MG09b, OT09, SA09, SE09, SG09, TDBEE11, TGEM09].

Parallel-in-Time-and-Space [AG15]. **Parallelisation** [RMBR13].

Parallelism [DL11, YPAE09]. **Parallelizable** [Bv01]. **Parallelization** [Ano08i, ASS09, Beh06i, GEF05, GS02c, KLR⁺15, SKTR02, Sch03h, SAB⁺06, TS15, TPR09, Zum00b, GA09]. **Parallelizing** [Beh06j, CL06a].

Paralleldatorcentrum [EJHS00]. **PARAMESH** [OM05]. **Parameter** [BvC02, CLZ08, GS13a, HK08a, Löw09, MI01, NL05, PC06, RDD⁺14, RGBvR01, Sch98, SW98, VM09]. **Parameter-Dependent** [Sch98].

Parameter-Free [GS13a]. **Parameter-to-State** [RDD⁺14].

Parameter-Uniform [VM09]. **Parameterized** [BR11a]. **Parameters** [BW03a, Bir14, Jun15, SW01, SM09]. **Parametric** [AS12, RB10, EdDB11].

Parametrized [Boy11a, EP11, RL11b]. **Parareal** [BM02a, SRSK15, Bal05, BW08, Dao07, FHM05, GV07, GH08a, GTD07, MT05, SSM08, SR05b].

Parasitics [BFSW99]. **Part** [LM11a, BCT⁺04, FM11, GS02c, GO05, GS07c, HDA⁺04, Sch08b]. **Partial** [AHE13, Bal05, Bon02, BT06, BD98, EP11, FY13, GH07, GS02b, GS05, GS07b, GS08d, GS11c, GS13b, GS14, GWZ14, HPS13, HR11, Laa08b, LT03, LO03, LP03, MDTC08, Mat08a, MAM07, NN12, RDD⁺14, Sch03g, SSH00, TDF06, KBH15, Lan99, Lan03a]. **Partially** [Bal06, BDH⁺04, HKN98, HF02, SU13].

Particle [Ala11, AC05, BK07, CB08, CA04, DBLL15, DS15a, FS08, FS13, FGR02, GKB06, GS02c, GO05, GS07c, HM02, HK02, JT07, JV07, KN11, KD02, LZ05, LC02, Lud10, Mon02, MIL⁺11, NR02b, POB13, Ros11, Sch08b, SRR99, Voj06, Wu15, ZLL02, CKB11, FS11, Qui11, TK11, WWAK04, Wil11].

Particle-Mesh [FGR02, POB13]. **Particle-Partition** [GS02c, GO05, GS07c, Sch08b]. **Particle-Reinforced** [Wu15]. **Particles** [AA04, FMH02, LL00]. **Particulate** [BP14]. **Partition** [BDyS15, EG08, GS02c, GO05, GS07c, HMP15, Sar02, Sch03g, Sch03i, Sch03k, Sch08b, Sch11b, Sch13b, SZ15]. **Partitioned** [BUM⁺15, BBGM10, SHY06, Vie06, VDAH10]. **Partitioning** [Ano08y, Che05, Elm00, GH99, TDF06, MDC11]. **Parts** [DBZ15]. **Pass** [GRF01]. **Passing** [PH12]. **Passive** [PS07]. **Past** [Ral06, Wer06, ACC09].

Patch [PDH07, SR05a, SZ09]. **Patch-Based** [PDH07]. **Patched** [Daw05, dFO09a]. **Patches** [BS14b, GHL⁺07]. **Path** [CBG02, ERO99, GS99, KT09, KT11, Miy02]. **pathways** [EVE04]. **Pattern** [ABLS15, NI02]. **Patterns** [Wal12]. **PC** [LPSB09]. **PCA** [GZ08b]. **PCB** [NPLM01]. **PCs** [AR02, CMEA09]. **PDE** [AHL09, BM02a, BBMU13, BGHvBW03a, BGHvBW03b, BG03, CG15, CBL03, CL06a, DLP02, FS03, GKW14, GS08c, HK08a, Hop14, KSM03, Lam11, Lan00, Lon03, MAAB06, SZ09, WK10, Zum00b]. **PDE-Based** [MAAB06, WK10, HK08a]. **PDE-Constrained**

[BGHvBW03a, BGHvBW03b, FS03, SZ09, BG03]. **PDEs**
 [ABC⁺14, BNT11, ES14, FV14, HA15, HH14b, HO14, JL05, KW04d, MSL03, MH12, ØLT03, PS03, Roy01, SLST07, Sch13a, VG05, VZ08]. **PDF** [JM12].
PDF/MDF [JM12]. **Peaked** [PF06]. **PeanoClaw** [UWN⁺15]. **Pedestrian**
 [SN03]. **PEEC** [LK05]. **Peierls** [Tad04]. **PEMFC** [WHHS13]. **Penalties**
 [Zun08]. **Penalty**
 [AZ11, Bre12, BMS15, DLZ08, Doh07, LP09, LP11, LW07b, Wan13].
 [PG07, BF02, CGDV07, CGPT05, DVH00, Dis05, GK06, GH11, GA09, GPG08, GTD08, GTD09, HÅ09, HF02, HT06, KJ02, MNO⁺05, OS11, ØEGF05, Pec13e, RE02, YM09]. **C** [LSL05, WMA12]. **Circuit** [BM01].
Classical [HL99]. **Domain** [FL00]. **DSMC** [ATK10]. **Fourier** [LLR11]. **FV**
 [TSM14]. **infinite** [DDS07]. **Littenweiler** [KOR99]. **MDF** [JM12]. **MM**
 [ZLY02]. **Nash** [CGP08]. **OpenMP** [KLR⁺15]. **or** [GD09]. **P** [LSL05].
Python [LWH12]. **r-RESPA** [IMM⁺02]. **without** [KiSO⁺11]. **Pendulum**
 [ST05]. **Peptide** [FB13, Kuc99]. **Percolation** [KB03]. **Perforated** [MNP07].
Performance
 [ABT99, Bau11, BK15, BDZ02, BCKP00, BDZ99, CBL03, CJS00, DDKP02, DG11, Elm00, ESD02, FJY06, FO09, GLYB07, Gus00b, Gus00c, HJR06, KMR13, KAB13, LS99, LS00, LG11, MC05a, MNO⁺05, MIL⁺11, ÖD09b, SKTR02, SL00, Ste05, TBP06, Tur00, Yan06, HVSC11, OT09]. **Peridynamic**
 [FDP15]. **Peridynamics** [DS15b, DT15, GHM15, EL13]. **Periodic**
 [BHLR99, HM01, PC06, VS07]. **Permanent** [Kub06]. **Permittivity** [CLS12].
Permutations [KM12b]. **Perspective** [Roo11]. **Perspectives**
 [GS02a, Ral06]. **Perturbation** [PDB06]. **Perturbative** [DHHS05, PDF11].
Perturbed [Bog11, BG11, CGL09, CG11, FO09, FK11b, GLMTO09, GO11, LT09, MCC09, OQ11, RZ03, Shi11, VM09, VS11, Vul09, dFO09a, dFO09b].
Petascala [SAM⁺11]. **Petrov** [FM05, MJ11, MO11]. **PETSc**
 [KKS06, LAOK07, WHHW11]. **PETSc-Based** [WHHW11]. **Phase**
 [AG03, BED14, Con03, Dan03, EK02, FfToNiBA⁺03, GNS03, KG06, NÖU09, Sch03a, SU13, Voj06, Gro11, HSMS11, KS02a, Per11]. **Phase-field**
 [AG03, Con03, Dan03, GNS03, Sch03a]. **Phenomena**
 [BHKV03, BGH02, BM02b, Daw05, Dur03, EIL08]. **Phenomenology**
 [SDKI08]. **Phenomenon** [Boy11b, Jun11, NÖU09]. **Phonation** [LM11a].
Phone [NPLM01]. **Photo** [Mel09]. **Photo-Ionization** [Mel09]. **Photon**
 [ASB⁺06, DMBS06, Kan99]. **Photons** [Dav06]. **Physical** [SKD02, ME09].
Physically [TA05]. **Physics** [BW09, GH08b, HH06, Jou05, KP09, LBR14, SDKI08, TG08, vR01a, BD99, OT09]. **Physics-Based** [SDKI08].
Physiological [TPA11]. **Pickling** [VI09]. **Picture** [Ano09s]. **Piecewise**
 [AGH15, BOT02, CDFS14, KB12, Ste98]. **Piezoelectrically** [AGH⁺08].
Piggyback [GF03]. **Pipelined** [GTD09]. **Pipelines** [MK03]. **Piston**
 [BMS05b, SE09]. **pK** [ABOGB99]. **Planar** [Dan03, Gov13]. **Planck**
 [AC05, JV07]. **Plane** [HP09, OMSA14]. **Plane-Wave** [OMSA14]. **Planetary**
 [LBR14, EGZ99]. **Plant** [WLP⁺06]. **Plants** [EKKvS99]. **Plasma** [KBS⁺99].
Plasmas [For14, Sco06]. **Plastic** [Miy02]. **Plate** [LS02, MNP07, SR08].

Plates [BDyS15]. **Platform** [Jou05, KGW99, KSGW00]. **Platforms** [GK09a]. **PML** [HHS⁺01, KO08, KO11, SZ07]. **POD** [GGV15, UL14]. **Poincaré** [GBM06, Hu08, KW04b, KW04c, PS11]. **Point** [Ano08-32, AHL09, BEFL03, Doh07, DB08, GK07, Krz09, LW07a, RIM05, SC08, SZ09, VNW02, VW03, Wie05, dFO09b, Rog12]. **Point-Symmetric** [RIM05]. **Points** [ZC11]. **Pointset** [JKAG15, Kuh02, Sei07, TK02, TK05, TD08]. **Poiseuille** [HLL11]. **Poisson** [ABOGB99, BLSO09, BLT⁺11, FZ07, Fun97d, GTS⁺11, HSZ13a, KJ02, Pvr01, ZSS⁺15]. **Polarons** [Izv99]. **Pole** [GS11b]. **pollutant** [MBG11]. **pollution** [SG09]. **Polyatomic** [JG99]. **Polycarbonate** [Abr04]. **Polyhedral** [CLP09, SSWW14]. **Polymer** [FBHL00, Kre04, Mei99]. **Polymeric** [KS09c]. **Polymers** [Sit04]. **Polymorphic** [War00]. **Polynomial** [BH08a, BR11a, BS14b, LDHS13, RL11b, WH02, WHHW11]. **Polynomial-Time** [BH08a]. **Polynomials** [Mon00, RMK11]. **Pontoon** [WT10]. **Pontoon-Type** [WT10]. **Population** [CGG08, TD08, Tsa04]. **Pores** [CCC⁺03]. **Porous** [Bas03, CKM⁺13, CTD05, EW05, KS02b, KGSW12, MH15, Nor09, Wan00, WK10, dNKS99, CC09]. **Portable** [BS02b, BK15, SL00]. **Portrait** [Vas00]. **Posedness** [LN15]. **Positive** [Reu00, Tai05, XL09]. **Possible** [Mil08]. **Post** [CLSS00, Was11]. **Post-Processing** [CLSS00, Was11]. **Posteriori** [Bar05, Bra07, Che08, CL11, HWYY11, KS00, LB00, LM05, Leu08, PP03, Sii99, Sül99, Zum09, OM08, Le 09]. **Postprocessing** [FGGZ11, OMS11b, Pes06]. **Potential** [BP03, Dar06, FWGB02, HD03, Izv99, MY11, Mez02, MNW⁺03, WCJ06, ZDZR15]. **Potentials** [Bos01, EM15, NDHS99, RFV03, WLLY09]. **Power** [BM01, BFSW99, BGH02, BWH02, CL12a, NPLM01, Tsc02, Zao08]. **Powerful** [KPM99]. **Practical** [LU08, MB09a, MT02, TG08, ZR11, vr01g]. **Practice** [Chi06, HK08b]. **Prairies** [GMS11]. **Pre** [Ste98]. **Pre-** [Ste98]. **Precision** [GHW08, IF02]. **Preconditioned** [GK07, LAOK07, PV98]. **Preconditioner** [AHZZ13, DNR09, DNSS13, DG09, EG11, FSXZ14, FP07, GMSS08, HSZ13b, Kuz08, LW07a, RXH05, Reu00, SS07b, SSM08, TR07, Vas00, Wan13, XZ11]. **Preconditioners** [AN02, AA08, BP07, DKW08b, DS14, FJY06, GHW08, HL07a, Hie05, KW04k, KL08, Krz09, LT02, LGK07, Med00, Mey06b, OVM10, PPRZ07, PW11, Pfl00, PC07, Saa07, SLST07, SS07a, SP08, SCG09, SR08, TXZ09, WSZ11, Yan06, ADDdS11]. **Preconditioning** [AS09, DLZ08, Doh07, HC05, MSL03, NP05, Not00, OHW07, PS03, Reu98, Sch05, Sch08a, Sch98, SMPZ07, SK03, SCRK09, WPBV05, WX13, MH12]. **Prediction** [ABOGB99, BG13, Kam02, KK09a, KCO09, LGCD04, Mav11, Miy02, SGT09]. **Prediction-Dased** [LGCD04]. **Predictive** [MH03, Van09a, Van09b]. **Predictor** [PLL05]. **Predictor-Corrector** [PLL05]. **Preliminaries** [Pec13f]. **Premixed** [BdS07, Din02, SP07, dNKS99, vdHB10]. **Preparation** [RB08]. **Preprocessor** [RP12]. **Present** [Ral06]. **Preserving**

[BMS05a, BR14a, Got15, PBF08, VV02]. **Pressure**
 [AP08, BWLA02, Fai02, Gje98, Gro11, KL11, KBS⁺99, PV98, ZSS⁺15].
Pressures [TL14]. **Pricing** [BM02a, FKMS08]. **Primal**
 [DM11, FP07, KL11, KW02, KW05, KRW05, KP07b, Pec13a, KRW07].
Primitive [Tay11, LEB05]. **Principal**
 [EE08, GI08, GS08a, GZ08a, GKWZ08, KZX08, Rei13, SF08, Yin08].
Principle [LS09a]. **Principles** [Beh06l, WLYL09, dK09a]. **priori** [DLP02].
Probabilistic [AS07, oCPiPDSKN03, NLC08]. **Probability**
 [JM12, PFPB14]. **Problem**
 [Ano08s, Ant05, AB05, BA01, BFF09, BKS11, BGyS13, BDyS15, CM11, CHM11, CBG02, DHU00, Dis08, DM11, FMP14, FK11b, GH08b, Gás11, GW02, GO11, GK07, HFHK15, KT05a, KO08, KO11, KL08, KL05, KL11, KLP14, KS11, KPJ13, LN15, Ler14, Mar07, MD08, MR00, MD07, Mü103g, OQ11, ODCK07, PLL05, RFV03, SLO⁺06, ST05, Shi11, Svá09, UL14, ÜG09, Urb02e, Uri11, VM09, VS11, YC11b, dFO09b, SE09]. **Problems**
 [AH05, AT08, ADD⁺03, ASB⁺06, AS12, Ano05f, Ano05v, Ano08k, Ano08-30, Ano08-32, Ano08-35, AA08, AS09, AMQR14, ABV15, Arb12, AEKT09, ABCM00, APJ09, AHZZ13, BS02a, BHL08, Beb08b, BLHJ⁺99, Beh06i, Beh06j, BC02a, BGS06, BHOP14, BHJ07, BHLR99, Bog11, Bon02, BKV00, BH08b, BT11, BMS15, BFM⁺99, BZ12, CLZ08, CKM⁺13, CC12, CCGL00, CGPT05, CSX05, CGP08, Che08, CNZ11, CL11, CH11, CG11, Coc99, CLSS00, Dao07, DAC00, DDFQ07, DW98, DL02, DLZ08, DW13, DP07, DEGL11a, DNSS13, DVH⁺08, DKB⁺13, Dra11, DW02, DP05, DW07, DC12, EG11, EGV11, ENOD99, EM15, EG12b, ESS14, FK07, Fal00, FLLA05, FO09, FCH⁺14, FBHK15, Fis15, FW07, FBHL00, FL00, FM11, GR05, GHJM07, GHK07, Gan08b, GLYB07, GL07a, GR11a, GQ11, Gen08, GGN07].
Problems [GH11, GMSS08, GS13a, GS08c, GHLS12, GSS09, Hal07, HJ08, HJS11b, HKK14, HHR08, HN05, HR08, HP06, HH01, HLTT14, HF02, HM08, HIRW05, HL07c, HK08c, HHR⁺15, IAD09, IS09, IF02, JW15, JM12, Joh04l, JMR⁺02, Jol03, JT07, Jun98, KR00, KKZ13, Kic98a, Kic98b, Kik02, KRW05, KR07, Kno09, KV08, Kor98, Koy11, KT08, KS05, Kra08, Kre05b, Krz09, KHD05, KHD07, KT05b, Lan97a, Lan97f, Lan03b, Lan03g, Lar06, LB05, LM05, LKV00, LM03b, Le 05, Le 07, Leu08, LSZ14, LW07a, LG09, LKR05, LT09, Mac00, MHB07, Mar09, MBS15, MS99, Mij00, Mil08, MG05, MP08, MT02, NR02a, NR14a, NP05, NL05, NI02, NP12, OB00, OMA09, OGWW98, OVM10, Pec13b, Pec13d, Pec14, PJ07, PO03, RR10, RL05]. **Problems**
 [Reu00, RSK11, RRG07, Rod13, RZ03, SSM08, SIR08, SZ07, Sch98, SSWW14, SW98, SM02, Sch02, Sch13b, SAG⁺06, Sii99, SH03, SZ09, SG06, SS01, Sül99, SMGR07, TA05, Tob09, Tur99c, THM⁺10, VDDP07, VL07, Vul09, WSZ11, WB05, Wen08, WO00, WX13, XZ11, XL09, iYN02, Yse02a, Zou11, Zun03, Zun09, dFS11, Ano05p, Gro11, LPSB09, Med09, Sel12].
Problems-Implementation [MT02]. **Procedure**
 [BNTT14, HLS00, LHC02]. **procedures** [Gri09c]. **Proceedings**
 [ABC⁺14, BCM02, Bän03, BMS05c, BFJ⁺05, BDZ02, BDZ99, CFH⁺03,

DHL⁺99, DRV00, ERT12, HW98, HKOS09, KOR99, PLW05, SG02, vRGH01, ADK⁺15, EJHS00]. **Process** [BB06c, GNS03, GP08b, Kie12, KB03, Mij00]. **Processes** [AR02, FR11, GWTW12, HWM99, KGSW12, KPM99, Lam09, LDWK99, PTS⁺12, SKD02, TWW12, Zab00]. **Processing** [CLSS00, FBHL00, NÖU09, Was11]. **Processor** [RS06]. **Processors** [GKB06]. **Product** [CDFS14, Pfl00]. **production** [Ull09]. **Products** [And08, KRU14, vdESvG05]. **Profile** [BOT02]. **Profiles** [BS05]. **Program** [Hop14, MYN⁺02]. **Programmable** [YKI09]. **Programming** [ACS09, BB03, CL06a, CHM12, HKK14, HR08, KSG⁺06, Lan97g, LT03, Lan03h, MH03, Neh12, PS08, Rün06, SPS⁺03, HM12, Lan99, Lan03a]. **Programs** [BBDS14, BGK08, BV08, MYN⁺02]. **Progress** [ELVE04, GS02a, LBR14]. **Progressive** [AIMY11, vdM10]. **Project** [WG05]. **Projectile** [WT09]. **Projection** [AA00, BQO05, FM11, GI08, Kno09, LLR11, TK02, Tob09, vdV00, van00]. **Projection-Based** [LLR11]. **Projections** [GJ09]. **Projective** [SR05a]. **Prolate** [GLK03]. **Prolongation** [DK11, Fas00, LL05]. **Prolongations** [WKR00]. **Promises** [Laa08a]. **Prompt** [Gra08a]. **Proof** [Boy11b, FMP14, Mon03]. **propagating** [BAG04]. **Propagation** [ADD⁺03, AMQR14, Bar13, CGPT05, CC06, Dav06, DPL13, DS15b, DEGL11a, EY12, EHR12, Jol03, KO08, ÖD09b, PDL11, SZ10, TT12, YT12a]. **Propagator** [Ber99b]. **Proper** [FS03, HV05, PTD11]. **Properties** [Ber11, CJS00, HAP06, LUN11, SHB14, SB99a, SB99b, SZ15, SH11b, Tis01, TD11a, Ver04, VS11, dK09a]. **Proposal** [SS07b, TH06]. **Propulsive** [NHF09]. **Pros** [JW11]. **Prospects** [RS06]. **Prosthesis** [FN02]. **Protein** [BCDF06, CCT02, HMW02, HMWZ99, NDHS99, SLO⁺06, SO02]. **Protein-Ligand** [HMWZ99]. **Proteins** [ABOGB99, EHH⁺99, HM99]. **Prototype** [GHM15]. **Prototyping** [Lon03]. **Prox** [JSH14]. **Pseudo** [OSM11]. **Pseudo-Spectral** [OSM11]. **Pseudorecursive** [BPJ14]. **PSI** [GR11a]. **Pulsatile** [TPA11]. **PUM** [SW15]. **Pure** [GHJM07]. **Pursuit** [GI08]. **Put** [BM02a]. **Python** [CL06a, LM03a, WMA12].

QCD [BFJ⁺05, ACvdE⁺05, BFJ⁺05, BBK⁺07, Fle05, Pea05]. **QM** [ZLY02]. **QM/MM** [ZLY02]. **QR** [Ano05s]. **QS** [PD11]. **QS-Decomposition** [PD11]. **Quadratic** [BB03, Bog11, HR08, MH03, SPS⁺03]. **Quadrature** [ADL...14, EM08, GO14, HPS13, Hol11c, Hol11g, Hol11f, KP07a, Lam11, MR02, ØW12b]. **Quadtree** [GTK06]. **Quadtree-Type** [GTK06]. **Quadtrees** [Gás00]. **Quality** [LMR11b]. **Quantifiable** [DDG⁺14]. **Quantification** [BS13, DC12, DWB13, FDP15, JR13, MSS13, TMB15, TS15, TSM14, WI13, BLMS13]. **Quantities** [Dul01, Wil00, Gri09b]. **Quantization** [ADL...14, ED07]. **Quantum** [AC08, BFM14, BGK⁺99, BMPC14, FLMS00, HÅ09, HL99, HC08b, JG99, LSR06, NS99, NR99, RMBR13, SHB14, SB99a, SB99b, TV14, TL06, WHHW11]. **Quantum-Classical** [NS99, NR99, SB99a, SB99b]. **Quantum/Classical** [HL99]. **Quasi** [BNTT14, Dub11, HS08, SW06a, SHH⁺01]. **Quasi-Minimal** [SHH⁺01].

Quasi-Newton [SW06a]. **Quasi-optimal** [BNTT14, HS08].
Quasi-Uniform [Dub11]. **Quasicontinuum** [VL12, LO12]. **Quasilinear**
 [FO09]. **Quasipolynomials** [CN04]. **Quasistatic** [CDWW01]. **QZ** [Ano05t].

R [VL07]. **Racing** [VPRF11]. **Radial**
 [BLR15, BC02b, Fas02, Gás02, Isk04g, MDTC08, XB05, dBvZB10].
Radiating [Gra08a]. **Radiation** [Cas08, Fry06, Gen08, GKKS07, Hag03,
 How05, KO11, PBG08, RS11, Sco06, SW06b, SBMD06, VO05].
Radiation-Damaged [PBG08]. **Radiative**
 [Gan06, Hub06, Kas06, MCBD02, Mor06, SK03, SDKI08]. **Radii** [MN05].
Radio [NPLM01]. **RAMI** [WP08]. **Ramified** [AT08]. **Random**
 [BNT11, ES14, FSA⁺06, GWZ14, SAB⁺06]. **Randomly** [PD99]. **Range**
 [LCYB06, TMPM02, YS11]. **Rank** [AKH08, Ano08y, BGK14, Lub14].
RANS [BBC⁺14b, TLL07, WL14]. **RANS-** [WL14]. **Rapid**
 [Lon03, WLP⁺06]. **Rapidly** [SGC07, VS07, BAG04]. **Rarefied**
 [ATK10, KCO09, GE09]. **Rarefied-Continuum** [ATK10]. **RAS** [KS13].
Rate [Boy11b, GGG13, POB13, SP07]. **Rates** [BA11, CDFS14, Dit15].
Ratio [DKK09]. **RatioDCA** [JSH14]. **Ratios** [VRMD00]. **Raviart**
 [RXH05, RX07]. **Ray** [For14]. **Rayspread** [WLP⁺06]. **RBC** [Ler14]. **RBF**
 [Ber07, Che02]. **RBS** [SMGR07]. **RCL** [Fre05b]. **Reacting**
 [SPS⁺03, vVVK10, Bel05]. **Reaction**
 [ABLS15, APJ09, Bau11, CGHS11, CGL09, CG11, DDG11, EG08, EF00,
 GHK07, Hof02, JS14, JS09, KUM15, KS02a, Kno09, LT09, ÖD09a, PDH08,
 PF05, SS11, SM09, SH11b, Wag00, dFO09a, dFO09b, FS11].
Reaction-Diffusion [APJ09, CGHS11, CGL09, CG11, DDG11, EF00, PF05,
 SS11, dFO09a, dFO09b]. **Reactions** [ZFB02, ZLY02]. **Reactive**
 [SBC⁺12, SW06b]. **Reactors** [KKLD02, KBS⁺99, ZFB02, Tsa04].
ReactorTM [EGZ99]. **Real**
 [CVvSW99, CD08b, DKB⁺13, GH08c, HF02, NPLM01]. **Real-Life**
 [NPLM01]. **Realistic** [ABT99, HW02]. **Reality** [DeF00, KS09a]. **realization**
 [SG09]. **Realizations** [SH11b]. **Really** [BDK⁺00]. **Rear** [Tsc99].
Receptivity [MGB09]. **Reciprocal** [TMPM02]. **Recirculating** [AC05].
Recognition [FWGB02]. **Recombination** [OWWG00]. **Recomputation**
 [CMLU12]. **Reconfigurable** [TBK13]. **Reconstruction**
 [BCL15, HBCC14, HK08a, Kuc15, LL05]. **Recovering** [AGH15, LC11].
Recovery [Boy11b, BED14, Fai02, Lam09, OK00]. **Recta** [GHT09].
Rectangular [DKK09]. **Recursive** [CRS06, GK09b]. **Redistribution**
 [Chi11]. **Reduced**
 [CHM11, EP11, FS03, LMR11a, PZ13, PPC07, RL11b, Vie06].
Reduced-Order [Vie06]. **Reducing** [GS99]. **Reduction**
 [BMS05a, BMS05c, BQO05, BC12, BvdW11, CV05a, CGVV05, CV05b, CL05b,
 EG12a, EP08, Fre05a, GKWZ08, GR11b, Hol11a, KW98, KW04g, KW04j,
 LR11, MY11, MS05c, PZ13, RB10, Reu98, SA05, SG06, The11, Var05, WL05].
Reduction-Based [The11]. **Reentrant** [BP03]. **Reentry** [PKKS11].

Refactoring [DL11]. **Reference** [Ber99b, GL06, KM12a]. **Refined** [Mül03f, XGL05, Zum00a, CC09]. **Refinement** [Ano08-27, Cho05, Daw05, DZ05, Hen05, IH07, LP03, LL05, MLD05, PDH07, Pfl13, PPC07, PLW05, SJCM05, CL05a, FBC05, GBG⁺05, SVM11]. **Refinements** [HL07a]. **Reflectance** [Gan06, WP08]. **Reflexive** [Bad08]. **Regime** [HR14, KCO09, Mor06, GE09]. **Region** [GK09b]. **Registration** [GPG08]. **Regression** [DHW02, WH02]. **Regular** [BG98, CCC⁺03, Jac14]. **Regularity** [KS00, RDD⁺14]. **Regularization** [BN13, CHP⁺07, Gás15]. **Regularized** [Gás13, PF06]. **Regulation** [Fri04, MSW⁺06]. **Reinforced** [Wu15]. **Reinforcement** [GK14, KB08]. **Reinforcement-Matrix** [KB08]. **Related** [Buf03, DT15, KWW08]. **Relation** [AHK07]. **Relations** [Lud10]. **relationship** [dK09a]. **Relative** [BG12b, MSLvG99]. **Relativistic** [BKvOA05, Mor06, Ros11]. **Relaxation** [BHJ07, BR14a, BZ07, CGHS11, Chi11, DDG11, GR05, GHK07, GHLSR08, GGH11, HH14a, Hal07, HJ08, HS08, Hal08, Hal09, HJS11a, HJS11b, HHR08, KL15, Kwo14, LM00, LG09, LG11, Mar05, MLB11, Tza99]. **Relaxation-Redistribution** [Chi11]. **Relaxations** [BMN12]. **Relaxing** [DAG15]. **Relevant** [Thu11c]. **Reliable** [FKMS08, TL06]. **Remarks** [Alb99, BG12a, LL12, RHH00, Sch03c]. **Remeshed** [CB08]. **Removable** [Fla06]. **Rendering** [AK00, Kon00]. **Renormalized** [Vil05]. **Replica** [WKE06]. **Replica-Exchange-Based** [WKE06]. **Representation** [Bar07b, Bos01, GBM06, GHI⁺14, Hac13, SC08, KL12d, ØW12b]. **Representations** [HS14]. **Representing** [EE08]. **Reproducing** [HMO2, JT05, JT07, LSL05, NCF08]. **Requirement** [SG06]. **Requirements** [LBS⁺13]. **Research** [ERT12, MB09a, Tur99e]. **Reservoir** [CLY⁺14, GEF05]. **Reshaping** [WB12]. **Residual** [GMCL14, SHH⁺01]. **Residual-Based** [GMCL14]. **Residue** [NDHS99]. **Residues** [ABOGB99]. **Resistive** [PPC07, RS12]. **Resolution** [Abr04, DHK⁺14, Jun11, PV98, SGC07, WI13, vdVvdV00, LEB05]. **Resolved** [Was11]. **Resolving** [MB10]. **Resonance** [RS11, CD03]. **Resonances** [Ann04]. **Resonator** [BMS05b]. **RESPA** [IMM⁺02]. **Respect** [WW98]. **Response** [SP07, WT10]. **Restricted** [PC07, SCGT07]. **Resulting** [Sch03f]. **Results** [BB02, BGK⁺99, FV14, GKB06, Gil08, Hag03, IS09, Joh04f, KRW05, KR07, Of08, PDB06, RV02, Tob09]. **Retarded** [HD03, KKJ⁺01]. **retrospective** [Yip09]. **Reversal** [Nau08, dRLT08]. **Reverse** [BGK08, Gil08, MH08, San08]. **Reversibility** [Joó05]. **Review** [BGK14, Bra02, Chi11, Got15, Gra14, KZX08, SCMR13, The11, Yak01]. **Revisited** [Uri11]. **Reynolds** [BBC⁺14a, CZC11, Fas00, KS09b, SRSK15, ZCC11]. **Riccati** [Vul09]. **Richards** [Ber09, KD12]. **Richardson** [MP08]. **Richtmyer** [HPP07]. **Riemann** [MHBM06]. **Rigid** [Lei99]. **RKEM** [SC08]. **RNAs** [LGS06]. **Roads** [oCPIPDSKN03]. **Robin** [BKS11, Dub07, GJMN05, GH11, IS09]. **Robust** [Atk00, BCL15, BP04, CN04, DPL13, DT15, FO09, FS04, GMSS08, GS13a, GS08c, HH14b, KW98, KW04k, KR07, Kor98, LBtM⁺01, LGCD04,

MPLT00, PFG08, PC07, RDD04, Sch13a, Sch08a, Sch98, SW11, TNG04, XZ11, YEÖ04, GO05]. **Robustness** [AD11, DFM⁺14, HEML00, HC05]. **Rock** [MGB02]. **Role** [DeF00, FK02, Roo11, Gri09c]. **ROMC** [WP08]. **Roots** [Hal09, SO04]. **Rotating** [Beh06m, FGR02, SRCB02, SGC07]. **Rotational** [ACC09]. **Rotor** [IWK⁺11, SUGL09]. **Rough** [CDLL11, LPK11]. **Route** [SSP⁺03]. **Routine** [WG99]. **ROW** [Bar01]. **RSM** [KT11]. **rSQP** [BB03]. **Rugby** [ASW09]. **Rule** [Klo01a, Klo01b]. **Rules** [ASW09]. **Run** [SZ10]. **Run-Up** [SZ10]. **Runge** [HKL15, PJ07]. **running** [HM01]. **Runtime** [HWB15, NPS02, YT12b].

S [RGBvR01, Swe06]. **S-Parameter** [RGBvR01]. **Saddle** [Ano08-32, Doh07, GK07, Krz09, LW07a, SZ09, Rog12]. **Safety** [GS99]. **Sailing** [DP09, VPRF11]. **Salt** [KBH15]. **Same** [Qui05]. **Sample** [BAF03]. **Sampling** [HBW⁺06, Rie11]. **SAMR** [LT05]. **SAND** [BW03b]. **Sandpile** [HC00]. **Saturated** [KS02b]. **SATURN** [SAG⁺06]. **Scalability** [DP07, HC05, SNF00, YPA⁺11]. **Scalable** [ADDdS11, BDS08, DDS07, DH05b, DHS07, DVH⁺08, DKB⁺13, HKH⁺15, NHF09, PB00, TMB15, WHHW11]. **Scalar** [FS08, Hof02, HHR⁺15, PS07, RFV03, SS01, FS11]. **Scale** [AHK07, BMS05c, BEFL03, BGHvBW03a, BGHvBW03b, BFL07, CL06b, CKM⁺13, CB08, Cod11, Dav06, DDKP02, DL02, DC12, EK02, ENOD99, GGH11, HC00, Hut04, JM12, KiSO⁺11, LZ05, LPKF07, LBCP02, MS05c, ÖB06, PYA09, PBG08, SRPD06, SPS⁺03, Sch02, SGC07, ST05, SMGR07, The11, TGEM09, VS07, WCJ06, WK10, WB05, WO07, ZLL02, GMM11, HL07a, KHW15, Kys09, Lam09, MN05, Med09]. **Scaled** [HMW02, JS14, TIN⁺11]. **Scales** [AH05, AE12, BGPR02, Ber99b, EIL08, GC07, KP09, ÖD09a]. **Scaling** [BG11, GC07, KFJ07, KSM03]. **Scarcity** [LU08]. **Scattered** [BS14b, Gás00, Isk04f]. **Scattering** [Ano08s, AB05, BBC05, BHL08, BR08, BH03, Cai00, CM03b, For14, Gro08, HIT07, Kir03, Koy11, NL05, PF06, SZ07, VL07]. **Scenarios** [KSGW00]. **Schedules** [BH06]. **Scheme** [Alt11, BS14a, BIM05, BA14, CM11, GMCL14, KT05b, Ler14, Mül03a, NGD⁺15, PG09, PD99, POD09, SR05a, Shi11, TK05, Wan00, Zun09, Per11, SKR04]. **Schemes** [ABC⁺14, AO07, BQGC15, BFF09, BB06a, BP13, tTBLvDP15, BM02b, BPJ14, CGL09, CG11, DD03, Daw05, Dit15, DLT14, DFR14, GC15, Isk04e, Kuc15, LUN11, Mül03b, MB10, Per99, SS11, Shu99, TNG04, TLL07, ZDZR15, CDM05, VSLMN12]. **Scholes** [LCD07]. **School** [KOR99]. **Schrödinger** [AES05, CO13, HS08, ZAEK14, ZDZR15]. **Schur** [Ano05r, Ano08-33, BD00, BG03, BLSO09, GTD08, HKK05, HK08a, KJ02, KW04a, Saa07]. **Schwarz** [KP07a, Ano08-34, Bad08, BBC05, BGOD05, BHJ07, CGHS11, CGLL05, CGLQ07, DDG11, DKW08b, DN07, DG08, DG11, DEGL11b, DNSS13, Dub07, DG09, EDG⁺14, FL05, FLTD09, GR05, GN07, GHK07, GHLSR08, GGH11, GZ14, GBG⁺05, GS08b, HH14a, Hal07, HJ08, HS08, Hal08, Hal09,

HJS11a, HJS11b, HHR08, Hay11, HK08a, HLP09, Koy11, Kwo11, Laa08a, LS09b, LS09a, LG09, LG11, Lui11, MS05a, Mar05, MP08, Nat07, Nat09, OHW07, PPRZ07, PC07, Qad08, RXH05, Sar02, SS07a, SS07b, SP08, SZ07, SMPZ07, SCGT07, SCG09, SCRK09, SM09, TD11b, VG05, Wan13, YC11a]. **Schwarz-Chimera** [KP07a]. **Schwarz-Multigrid** [FL05]. **Science** [BGKW09, ERL05, ELR09, EGH⁺14, FLMS00, HKWX11, KV10, KHP⁺05, LDK⁺08, Mei99, Qui05, WK07, Ban13]. **Sciences** [EG08]. **Scientific** [Art00, Bän03, BDE⁺05, Bra02, BDZ02, BDZ99, CvG10, DL11, HLM⁺03, LBQ00, Neu03, YD09, dIRY09, EdDB09, vRGH01]. **Scripts** [LM03a]. **SDEs** [DFM⁺14, JL05]. **SDG** [TSM14]. **SDG/FV** [TSM14]. **Seamless** [CHM11]. **Search** [DS15a, Ull09]. **Second** [BMS05a, BMS05b, CGVV05, DBZ15, FLA05, FA12, Fre05a, Hu08, Kic98a, Kic98b, MH08]. **Second-** [FLA05]. **Second-Order** [BMS05a, CGVV05, Fre05a, Kic98a, Kic98b]. **Secondary** [HMW02, HHLL11]. **Sediment** [HIT07]. **Sedimentary** [KLS03]. **Seepage** [JB07]. **Segments** [HMW02]. **Seismic** [FdIPFC15]. **Seismology** [LBS⁺13]. **Selected** [AHE13, HR11, KBH15]. **Selecting** [KW05]. **Selection** [MS07, WI13]. **Self** [Ano08-29, CCC⁺03, GDRC02, GL10, Gor11, HC00, PS03, Yin08]. **Self-Adjoint** [PS03]. **Self-Excited** [GL10]. **Self-Organising** [Yin08]. **Self-Organized** [CCC⁺03, GDRC02, HC00]. **Self-Simplification** [Gor11]. **SEM** [BMP14, RS11, SCRK09]. **Semi** [BS05, BIM05, DDG11, DH05b, ESD02, FHM05, Fis15, GC15, LUN11, ST00]. **Semi-Direct** [ESBD02]. **Semi-Discrete** [BIM05, Fis15]. **Semi-Discretized** [BS05]. **Semi-Implicit** [GC15, FHM05]. **Semi-Iterative** [ST00]. **Semi-Lagrangian** [LUN11]. **Semi-Linear** [DDG11]. **Semi-monotonic** [DH05b]. **Semiautomatic** [Gay06]. **Semiconductor** [Alb99, CS03a, DGH⁺99, GSF99, HH03, Mij00, OMSA14, TV14]. **Semiconductors** [CCC⁺03, CJS00]. **Semigrandcanonical** [BDH⁺04]. **Semilinear** [Bog11, CL11, GLMTO09]. **Semirings** [LM11b]. **Sensing** [HLTT14]. **Sensitive** [SM08]. **Sensitivities** [KG06]. **Sensitivity** [CDH06, EW08, Hel08, KK09b, LH12, LP03, PDF11, PBG08, PS14, SS08, TZ11, TG08]. **Sensor** [HBW05]. **Separability** [NN12]. **Separable** [HKK14]. **Separate** [MG09b]. **Separated** [AE12, NSS09, MG09a]. **Separation** [EKKvS99, KK09a, OMA09, TLL07]. **Separators** [CXX12]. **Sept** [PLW05]. **September** [BCM02, DRV00]. **Sequence** [CCT02]. **Sequence-Specific** [CCT02]. **Sequences** [JGE06]. **Sequential** [HR08, MH03, SPS⁺03]. **Sequestration** [SU13]. **Series** [BG13, Boy11b, CL12a, TDV11]. **Service** [ACS09]. **Service-Based** [ACS09]. **Set** [BLR02, BG12b, HSMS11]. **Sets** [HKN98, HC00, SC08]. **Setting** [Mül03h]. **Seventh** [EJHS00]. **Several** [GV12, LGM⁺00]. **SFC** [AM12]. **SFV** [TSM14]. **Shadowing** [AR06]. **Shallow** [Beh06m, BvdW11, FGR02, Mar05, Qad08, SK00, YC11a]. **Shallow-Water** [FGR02]. **Sham** [SG14]. **Shape** [ABV15, BBMU13, BHOP14, BP08, FV14, FB07, GK09a, HSGI10, LSZ14, Luk01, OMS⁺11a, PS14, RL11b, GACD05, PEG11]. **Shape-Topological**

[LSZ14]. **Shapes** [HS03]. **Shared** [OK11]. **Shear** [WGF⁺03]. **Shedding** [MLI07]. **Shell** [Ano02v, CD07]. **Shell-to-Shell** [CD07]. **Shells** [BWK06]. **Shifted** [KS13, OVM10]. **Shifted-Laplacian** [OVM10]. **Shock** [Daw05, Ler14, Uri11, Vul09]. **Shocked** [LBB09]. **Shocks** [BOT02, LeF99]. **Short** [AC05]. **Si** [VW03]. **SIAC** [Rya15]. **sic** [MNO⁺05]. **Sidebranching** [GCC03]. **Sided** [NR14a]. **SIERRA** [SE03]. **SiGe** [BM01]. **Sigma** [MYN⁺02]. **Silence** [Qui05]. **Silicon** [VNW02, WLLY09]. **Silos** [GM00]. **SIM** [TKG⁺00]. **SIM-VR** [TKG⁺00]. **Simple** [AZ11, BHKV03, Mon03]. **Simplicial** [PR14, SMPZ07]. **Simplification** [Chi11, Gor11]. **Simplified** [Bar00, ME09]. **Simply** [BDyS15]. **Simulate** [BQGC15]. **Simulated** [BH06, GP08b, HMW02]. **Simulating** [BD09, JT07, KS09c, Mez02]. **Simulation** [Abr04, AR02, AHK07, ABG07, ABFL00, AGH⁺08, Atk00, AK04, AQ14, BCM02, BBC06, BC11, Bar01, BGPR02, BM01, BLS06, BA01, BBDS14, BFF09, BD09, BBB⁺13, BW09, BHKV03, BDH⁺04, BK01, BGH02, BWH02, Bv01, BSTD05, BWLA02, BBM06, BS06, BMS10, BBGM10, BA14, BvC02, CM03a, CL06b, CKM⁺13, CGDV07, CVvSW99, CS03a, CJS00, CS03b, DB12, Den02, DS15b, DFR01, Dor00, DVM⁺01, DGH⁺99, DPW⁺05, Elm00, ESD02, EKKvS99, ELR09, GMS11, GEF05, GSF99, GP00b, GP00a, GBS02, GM00, GH99, HHS⁺01, HH03, HMWZ99, HPP07, HvS12, JKAG15, JB07, Joh04f, JL05, KKLD02, Kas06, KLS03, KLGR05, Kro02, KSGW00, KM12b, Lar06, LM11a, Lei99, LCE⁺06, LDWK99, LL00, LPK11, LK02, MSW⁺06, MHB07, MB09a, MSLvG99, MRRS99, Mel09, MNP07, Mij00]. **Simulation** [MML12, MB09b, MB10, NPLM01, NØ09, ØEGF05, Oks03, PDH07, Pes06, Pet09, PKKS11, RE02, RL11a, SHY06, SSBP10, SKvR01, Sch99b, SKD02, SDS02, SJB06, SN03, Svá09, TS02, TLL07, TKG⁺00, Tsc99, Tsc02, THM⁺10, Urb02e, WS02, WT09, WHHW11, WGGC09, YM09, YKI09, ZAEK14, vdHB10, vdM10, CC09, FK11a, FBC05, KS04, LPSB09, LBB09, ME09, MLB11, SACP09, WLLY09, ZS09, vS99, EJHS00]. **Simulation-constrained** [ABG07]. **Simulations** [ATK10, AC11, BS02b, BGM14, Ber99a, BKvOA05, BCDF06, BOT02, BFL07, CB08, DVH00, DP09, EHH⁺99, Eng00, FB13, FS13, FDP15, GKB06, Gen08, HM99, JM99, Joó05, Jou05, KLIM07, KLY04, KSM03, Kre04, LSR06, LSL⁺00, LBCP02, LCYB06, Lud10, MCBD02, MAAB06, Mei99, MI07, Mon00, NGD⁺15, OSF11, PG11a, PS07, PYA09, Pea05, PD03, PDS⁺05, RSVV08, Rie01, RIM05, SRPD06, Sah09, Sch99a, Sch03a, SUGL09, SGP07, TK02, TA07, TKH14, Tor05, TW03, Voj06, Wag99, WG05, WLP⁺06, YPAE09, YD09, dIRY09, DBK15, EdDB11, GKS11, Gri09c, HHB04, IDR⁺11, KS09a, LB11, VCR12, LKYJ00]. **Simulator** [HG09, KKS06]. **Simulators** [CLY⁺14, OT09]. **Simultaneous** [Yab02]. **Simultaneously** [GV12]. **Single** [MSLvG99, VNW02]. **Singlet** [Wil00]. **Singular** [CM09, KKZ13, MS05a]. **Singularities** [Fla06, GO14, Miy02]. **Singularity** [FK11b, SK09]. **Singularly** [Bog11, BG11, CGL09, CG11, FO09, FK11b, GLMTO09, GO11, LT09, OQ11, RZ03, Shi11, VM09, VS11, Vul09, dFO09a, dFO09b]. **Sinusoidal** [KT09]. **SiO** [HHB04]. **Site** [BBTD05]. **Sites** [AMW02, MBG11]. **Situations**

[Mey06b]. **Sixth** [DRV00]. **Size** [Jun15]. **Sized** [BH00]. **Skeleton** [Rie01]. **Ski** [NØ09]. **Skin** [KL08]. **Slabs** [SDSU01]. **Slip** [AC11, HM11, GE09]. **Slushing** [LDWK99]. **Slow** [Sle11]. **Smagorinsky** [Bra07]. **Small** [Ede05, JS09]. **Smectic** [BAF03]. **Smith** [DNR08, DN08, GL05]. **Smith-Type** [GL05]. **Smoke** [YKI09]. **Smooth** [AGH15, Buf03, CD03, Kor98]. **Smoothed** [BBK⁺07, KN11, LT02, Mon02, MIL⁺11, Ros11, SRR99, Wil11]. **Smoother** [ST00]. **Smoother** [Gje98, SZ09]. **Smoothing** [BOT02, CHP⁺07, DIV00, Hol11a, TH03]. **Smoothness** [BP13, Rya15]. **Smoothness-Increasing** [Rya15]. **Soccer** [BC09a]. **soft** [HIT07, GSDP09]. **Software** [Ano05u, ALK13, Ban05, Elm00, FLST00, GWMW02, GP00b, GP00a, LS99, LBQ00, LBS⁺13, MZ03, NJ00, OM05, RMBR13, RLEM04, SS05a, TBK13, TDBEE11, Zum00b, EdDB09, GMM11, Med09, vS99]. **Solar** [Dav06]. **Solder** [Kam02]. **Solid** [BU13, BKV00, EK02, GACD05, KP09, Lan97h, Lan03i, Yab02, ØW12a]. **Solid-Fluid** [BU13]. **Solidification** [BRP03, BAF03, Dan03, FfToNiBA⁺03, GNS03, Her03, RJB03]. **Solids** [SKD06, FK11a]. **Soliton** [CO13]. **Solutal** [GE02]. **Solute** [ABOGB99, MM11]. **Solute-Solvent** [ABOGB99]. **Solution** [AC08, AP08, BBC05, BR00a, BLHJ⁺99, BGS06, BHOP14, EGLS14, BC02b, BT06, CGPT05, CGP08, CBG02, Des00, DHW02, DH05b, EM15, FS04, FBHK15, FLST00, FL00, GHM11, GP08a, GY12, GH11, GKKS07, HO14, HM11, HK08b, HNR99, Joh04m, KJ02, KW04j, KSS15, Kra08, KRT07, LGM⁺00, LP03, LMW12a, Mat08a, MS99, MR00, MD07, MT02, MTM05, NRWF08, NJ00, NDBG14, NL05, PF05, PD99, PPC07, SHH⁺01, Sch03f, SKD02, SW06b, Swe06, TDF06, Tis01, THR⁺10, ÜG09, VS11, Yab02, Yse02a, vdV00, van00, BLSO09, GD09, Lan00, TDV11]. **Solution-Adaptive** [KSS15]. **Solution-Dependent** [BHOP14]. **Solutions** [DKK09, EKN15, Fla06, Gás15, Gás15, Gra08a, GWZ14, HH14b, Joh04c, KWKK04, Ler14, LL00, NR02a, OMA09, SGT09, SRCB02, TOG09a, TOG09b, vLD00]. **Solvability** [RFV03]. **Solve** [ASB⁺06, Bal05, Beb08b, CTD05, EG12b, SAG⁺06]. **Solvent** [ABOGB99, BBC06, FWGB02]. **Solver** [AKO05, ASS09, Ban07, BBC⁺14a, BMP14, EGZ99, Gar08, Gje98, GO05, HT06, Hu08, HIT07, IAD09, LPH00, MT05, Mij00, MKR00, ÖNG12, PV98, TF06, THM⁺10, WKR00, WT09, YZ11, YPA⁺11, Zum00b, BLT⁺11, GTS⁺11, HJD⁺12, Sel12, WL14]. **Solvers** [ABT99, AG99, BFZ02, BS02b, CBL03, CL06a, CV00, CKL11, DAG15, DKP00, DGS11, FRXT99, GT08, GHW08, HKL⁺01, HSZ13a, HO03, Jun98, KS13, Lan97g, Lan03h, MHB06, OGWW98, ÖD09b, Pec13b, PvR01, RB08, SW11, Tur99c, Vie06, Woh01d, Woh01c, dDZ14, vVVK10, vdESvG05, Tur99b, Tur99f]. **Solving** [AC05, AB05, BBDS14, DFR01, EG08, FK07, FS08, GFS06, HA15, KR00, KS05, KHD05, KHD07, PD00, PPEdD14, PLL05, TK05, Med09]. **Some** [AR99, BB02, Beh06n, BIM05, BG12a, CKM⁺13, DM00, DW13, Dur11b, ELVE04, Fom03, Gás13, HM02, KRW05, KR07, LW05, LT02, LL12, MC05a,

Mil08, OM05, Pes06, RHH00, Sch99a, Thu11b, Thu11c, Thu11d]. **Something** [Qui05]. **SOR** [OK11]. **Sound** [HIT07, PS08, RS11]. **Sound-soft** [HIT07]. **Source** [BPV08, GHT09, HWB15, KKJ+01, MM11, NN12, SK00, SW06b, CKB11]. **Source-to-Source** [NN12]. **Space** [ASB+06, AG15, AMQR14, Bar07a, Bar07b, Che11, Cod11, FBHK15, GH07, Gar08, HFHK15, HJS11b, HO14, HSM02, Joh04g, Joh04k, Joh04n, KS00, KLRR14, KV08, MS07, PDS+05, Sch09, TSSA06, TD11a, TMPM02, TXZ09, YAS+00, dDZ14, FBC05, Sch11b]. **Spacecraft** [KAB13, TMWT10]. **Spaces** [Bad08, Buf03, Cod11, DKW08b, HS14, LT02, MS11, Mü103f, Sar02, Wid09b]. **Spacing** [BBC+14b]. **Sparse** [AS12, BNTT14, BD00, BP08, BA11, BG13, BD98, BPJ14, DKP00, FDP15, GLYB07, GGG13, GG13, Gar13, GK14, GP14, GH13b, GO14, GH14a, GL05, GHI+14, Hac13, Hol11g, Hol11f, HS06a, Jac14, KKM+14, LKV00, MY11, ÖD09b, PZ13, PFPB14, PD11, RS12, Saa07, TR07, UL14, YT12b, Zum00a, Zum00b, KW04a]. **Sparse-Grid** [LKV00, UL14]. **Sparsity** [GP08b, HLTT14, LK12, Wal12]. **Spatial** [Dav06]. **Spatially** [Pfl13]. **SPDEs** [CDD+14, BA11]. **Special** [Mey06b, Ros11, Ull14, VM09]. **Special-relativistic** [Ros11]. **Specific** [CCT02]. **Spectra** [Ska11]. **Spectral** [AAG11, BNT11, BBH+15, BQO05, BPK11, CFH+07, DPR08, EGV11, FL05, Fun97e, Fun97f, GT08, GQ11, GD10, Ger11, GE02, Hen99, Hie05, KRP08, KWH00, KR08, Lam11, LWL11, LMR11b, NLC08, OSM11, OSF11, OMS11b, PG11b, PPRZ07, PR14, PW11, PDL11, RMK11, TD11a, Vas00, Was11, XCL11, AHE13, HR11, KBH15]. **Spectral-Element** [OSM11, OSF11]. **Spectroscopic** [LPK02]. **Spectroscopists** [Fle05]. **Spectroscopy** [KL15]. **Spectrum** [Gra08a, KN02]. **Speed** [Din02, VRMD00, MB09b]. **Speeds** [YS11]. **SPH** [BOT02, RE02, RP02, Vil05]. **SPH/** [RE02]. **Sphere** [CGLL05, Dub11, Gra08a, Loi07, MG09a]. **Spherical** [BdS07, Beh06m, CGLQ07, YC11a]. **Spheroidal** [GLK03]. **Spin** [HFSS06, KG06]. **Spin-Up** [KG06]. **Spinning** [WT09]. **Spinodal** [WGF+03]. **Spintronics** [ZTJ09]. **Spiral** [LK05]. **Spline** [SR08]. **Split** [JM99, LL05]. **Splitting** [AAGP14, CO13, Mey06a, ZDZR15]. **Sponge** [Hal07]. **Sport** [Pet09]. **Spreading** [HWM99, PD03]. **SPVF** [BG11]. **SQP** [BW03b]. **Square** [Fun97d, HLS00, MLI07, HLL11]. **Squares** [Ano08x, Fas02, GD10, GB15, Mon00, GH11]. **Squares-Control** [Ano08x]. **Squares/** [GH11]. **Stabilisation** [FM11]. **Stability** [Bal05, Bli04, BP04, CN04, Dao07, Dat04, DD03, EM12, FK08, Got15, HC04, HKL15, LN15, Lou04, MMRD04, RSR04, RP02, RDD04, RLEM04, SR05b, TNG04, VDAH10, Rog12]. **Stabilizability** [RSR04]. **Stabilization** [CHP+07, DB08, Löw09, MZ14, MMN04, OSF11, RLEM04, Tob09]. **Stabilized** [Bau11, FMH02, HH15, HM08, LS02, PZ07, RL05, RH13]. **Stabilizing** [Dur11a]. **Stable** [HMI07, KSM03, ST00]. **Stage** [FSXZ14, RJB03]. **Staggered** [Daw05, Fol05]. **Standard** [Vas00]. **Stars** [KFMK05]. **Started** [Lan97d, Lan03e]. **State** [Bru11, CS03b, FB13, HK08b,

HM01, KP09, MSLvG99, NR14a, RDD⁺14, RY14, TH03].
State-of-the-Practice [HK08b]. **States** [CRS06, KRSS06, SV11]. **Station** [ERT12]. **Stationary** [GC07, KTC07, LO12, SW98]. **Statistical** [BA01, SGC07]. **Statistically** [Kas06]. **Statistics** [Bor05c, GC07, MS06, SA99]. **Steady** [AC05, Bru11, Dis08, Fun97g, HM01, Ler14, RY14, SV11, vLD00].
Steady-State [Bru11, HM01, RY14]. **Steel** [BS05]. **Steered** [ISI⁺99].
Steering [Eng00, LKYJ00]. **Steklov** [Hu08, KW04b, KW04c]. **Stellar** [Mor06]. **Stencil** [WI13]. **Stenoses** [TPA11]. **Step** [BM01, GRF01, HW02, JM99, PL11, SI99, POD09]. **Stepping** [DAG15, GC15, JW15, NR99, UWN⁺15]. **Steps** [Atk00]. **Stiff** [Abd12, LM00, SW06a, FS11]. **Stiffness** [DFE11]. **Stochastic** [Abd12, ADL...14, BNT11, BBDS14, BC12, DFM⁺14, ERO99, ES14, FY13, GWZ14, G us00a, HPS13, HDA⁺04, JS14, JR13, LO03, NR02b, PD99, PPEdD14, PDL11, SL14, UL14, Ver04, EdDB11, Hak12, KS04]. **Stockholm** [EJHS00]. **Stokes** [GS11a, LDHS13, ATK10, AAGP14, AP08, Bar07b, BR00a, BC02a, BR11b, DHU00, Dis05, DNR08, DNR09, DIV00, DKK09, Fai02, FL05, FHM05, FBAC11, FM05, FP15, GS07a, G as11, HNRRR99, Joh04n, KK00, KW04g, KL05, KL11, KLP14, KS11, Krz05, Kuh02, LPH00, L ow09, LLR11, NR07, OB00, PV98, PS14, Pue14, SGT09, Sch98, SRSK15, SW05, TOG09a, TOG09b, TK02, TK11, TL14, Tur99b, Tur99f, Uri11, VSLMN12, Wag99].
Stokes-Mortar-Darcy [GS11a]. **Stokes-Type** [Sch98]. **Stokes/** [Dis05].
Stokes/DSMC [ATK10]. **Stokes/Fourier** [LLR11]. **Stopped** [DM05].
Storage [SG06]. **Store** [OMA09]. **Storing** [CMLU12]. **Strain** [CHP⁺07, LHC02, Zha00]. **Strategies** [BW03b, CCGL00, DLM14, GH99, SKTR02]. **Strategy** [AC05, MPS05, MC05b, SDKI08]. **stratified** [MG09a]. **Stream** [Fai02].
Streamfunction [FBAC11, Kan07]. **Streaming** [Ala11, AGH⁺08].
Streamlined [HK06]. **Street** [Dur03]. **Strength** [SKvR01]. **Stress** [BBC⁺14a, BAG04, DB08, GZS07, Mij00, Miy02]. **Stress-Point** [DB08].
Stresses [KFJ07]. **Stretched** [SLST07]. **Strip** [MC05b]. **Strip-Based** [MC05b]. **Stroboscopic** [CC12]. **Strong** [CV00, Daw05, Got15, RSR04].
Strongly [GGN07, Sch13b]. **Structural** [AMW02, HL07b, SCMR13, TF06].
Structure [BMS05a, BC09b, BBMU13, BGKM15, BUM⁺15, BBM06, BS06, BMS10, BBGM10, DDFQ07, DR06, FGGZ11, FCH⁺14, For14, GTK06, GKEK10, GL06, GL10, GHH14, HMW02, HSGI10, HT06, KRSS06, KN11, KSS15, KB03, KW08, LM11a, LBCP02, MYN⁺02, MNW08, MKZS06, MB10, OMSA14, OS11, RR10, SSA⁺14, SHY06, SSBP10, SKD06, SG14, SWR08, SS05b, TSSA06, TH06, THR⁺10, THM⁺10, Vie06, WGG06, WGKM10, Wen08, YZ11, vZB10, HJJ⁺12, HHLL11, LOR09, Sel12, dK09a].
Structure-Exploiting [SWR08]. **Structure-Preserving** [BMS05a].
structure-properties [dK09a]. **Structured** [Ano05f, Ano05v, Beh06i, Beh06j, CCGL00, Dav06, KKLD02, KFN11, KRU14, Kre05b, MPLT00, SA05, TOG09a, WK10, CGG08, GMM11].

Structures [Beh06a, Beh06c, BMR03, BvC02, CCT02, DHK⁺14, GSS14, Gus00b, Gus00c, HRGD02, HH03, Isk04a, MGB02, Mü03c, NPS02, RGBvR01, SW01, SDS02, TLO03, TA07, WT10, ZTJ09, Ano05h, MO09]. **structuring** [GLYB07]. **Studies** [BHL08, Cas08, HM02, HMWZ99, SO04, Med09, WLLY09]. **Study** [Bra07, DK11, DM14, GGH11, GSDP09, GP08b, GL06, Joh04k, Joh04j, KCO09, LH12, LN12, MBR11, OSM11, RJB03, TPA11, VPRF11, CL05a, Kys09]. **Studying** [SC08]. **Stuttgart** [HW98]. **Sub** [GLYB07, GC07, MAK⁺15, PAR01, vZB10]. **Sub-Grid** [GC07]. **Sub-Iterations** [vZB10]. **Sub-micrometer** [PAR01]. **Sub-structuring** [GLYB07]. **Sub-Voxel** [MAK⁺15]. **Subcell** [WI13]. **Subdivision** [DDJS99]. **Subdivisions** [Sch11a]. **Subdomain** [CP05, Hay11]. **Subdomains** [DKW08a, GK11, Wid09a]. **Subgradients** [BMN12]. **Subgrid** [AHK07, BM02b, BFL07, CDW07, Cod11, Hof02, KFJ07, SGC07, WO07]. **Subgrid-Scale** [AHK07, Cod11, SGC07, WO07]. **Subject** [TNG04]. **subjected** [ZS09]. **Submodeling** [LB05]. **Suboptimal** [HV05]. **Subregions** [GHJM07, GHM11]. **Subspace** [ACvdE⁺05, DVH01, EF00, HKX08, KKZ13, WO00]. **Substance** [KSM03]. **Substructures** [DGS11]. **Substructuring** [Ano08w, Ano08-33, BP07, Doh07, HSZ13b, KW04h, KRW07, KLGR05, MS07, Mar07, Pec14, Zun03]. **Subsurface** [ALKK09, DC12, SU13]. **Successes** [BVB00, Sch99a]. **Successive** [BB03]. **Such** [WB12]. **Suitable** [Yak01]. **Suite** [The11, VAvA10, Ros11]. **Suited** [IAD09]. **Sum** [Boy11b]. **Summary** [Hol11h, vR01i]. **Summation** [DBZ15, Wil11]. **Sums** [AC08]. **Sundance** [Lon03]. **Supercomputer** [TIN⁺11, TGSS09]. **Supercomputers** [Rüd99, WG05, GKS11]. **Superconvergence** [Rya15]. **Superlinear** [GV07]. **Supernovae** [MLCM06, ME09]. **Superposition** [Ber09]. **Supersonic** [NSS09, WL05]. **Support** [Rie11]. **Supported** [BC02b, BDyS15, Fas02]. **Surface** [BYJ08, CM03a, FWGB02, MY11, MPS05, Sit04, TPR09, Vil05, WCJ06, LPT12]. **Surfaces** [Cai00, DF11, Kuc99, RB08, TLL07, TPM02, PK04, PEG11]. **Surrogate** [HV05]. **Survey** [Ano09q, BB02, LS02, MI01, ZLL02]. **Suspension** [PG11a]. **Suspensions** [AC05, Tor05]. **Swarms** [GBS02]. **Sweden** [EJHS00]. **Sweeping** [CN04]. **Swimming** [MB09a]. **Swirled** [SP07]. **Switchgear** [BKP01]. **SyFi** [AM12]. **Symbolic** [AÅD12, CDNQ13, SBMD06, AM12]. **Symmetric** [BMS05b, BRP03, DLZ08, Reu00, RIM05, Ste15, XL09, AZ11, Wil11]. **Symmetrical** [KKJ⁺01]. **Symmetries** [TV14]. **Symmetry** [BH08a, Bon02, GC07, VV02]. **Symmetry-Preserving** [VV02]. **Symplectic** [BW08, JM99, NR99]. **Symposium** [BCM02, DHL⁺99]. **Synchronization** [Hal04]. **synthesis** [Tsa04]. **Synthetic** [LGS06, SHK99]. **System** [ABLS15, ABOGB99, Ber99b, BU13, CGLQ07, DMBS06, GMSS08, GLMTO09, GGV15, HJR06, HWB15, Leu08, MTM05, PD11, Roy01, SP08, Sch03f, SM09, TBK13, WS03, vdESvG05, vS99]. **Systems** [AE12, AR99],

BMS05a, Bar99, Bar00, BDOR04, BMS05c, BGS06, BD00, Ber99b, BW03b, BP04, BR14a, BKK⁺15, CV05a, CGVV05, CV05b, Chi11, Chi06, CGL09, CDW07, D'A15, DDG⁺14, Dat04, DLP02, DDKP02, DDG11, DPL13, Doh07, DG08, DGH⁺99, EF00, FR00, FS04, Fre05a, Fri04, GS07a, GS11a, GT08, Gor11, GL05, GTD07, GTD08, HÅ09, HH14a, HC04, Hel08, HV05, HC08b, IF02, JS14, Joh04m, JG99, Kal12, KB03, LS99, LB00, LeF99, LP03, LSLK05, LM00, LGCD04, MSL03, MS05a, MMN04, MS05c, MSS13, ML04, MKR00, MK03, NHF09, NG04, ØLT03, PTD11, PC06, PDL11, RSR04, RP04, RSS99, RDD04, Saa07, SHH⁺01, SFMF05, SK03, Sle11, SA05, TAA04, The11, TZ11, Tza99, VZ08, Ver04, Voj06, IYR06, YPA⁺11, Zao08, ZAEK14, vR01g]. **Systems** [vR01h, EVE04, EW08, KS09a, Lan00, MH12, MR09, MDC11, TDV11, WLLY09].

TAC [VGK08]. **Tadpole** [DHHS05]. **TAF** [XXM06]. **Tangent** [GK06, MH08]. **Tangent-on-Reverse** [MH08]. **Tangent-on-Tangent** [MH08]. **Tank** [BFF09]. **TAPENADE** [PH06, PH08]. **Target** [HIT07]. **Targeted** [AR06, ÖB06]. **Taylor** [DLT14]. **TE** [BBC05]. **Tearing** [LS05, LOSZ07, Pec13b]. **Technical** [DS11]. **Technique** [BC12, CDWW01, Fai02, Gás00, GH14b, HMW02, KPJ13, LKV00, MDTC08, PG07, PDB06, RX07, SW01, SM09, Le 09, TKH14, WH14]. **Techniques** [Ant05, BBC05, BGK14, BGPR02, Beh06a, BMPC14, BPV08, BvC02, CDNQ13, DDJS99, DKP00, EG12a, Fom03, FSS06, Gús00a, HKK05, KW04e, Lar06, LM05, LJTN11, MR00, MI01, NDHS99, OWWG00, PJ07, PO03, Sar00, SFMF05, TSSA06, The11, TPR09, WPBV05, Woh01a, EK14]. **Technological** [Rüd99]. **Technologies** [Tur00]. **Technology** [DeF00, GA09]. **Tekniska** [EJHS00]. **Tele** [Bro00]. **Tele-Immersion** [Bro00]. **Teleoperation** [TNG04]. **Temperature** [KSC⁺14, NSS09, SG14]. **templated** [PK04]. **Templates** [PP12]. **Ten** [FBHL00]. **Tensor** [AS12, BGK14, BA11, CDFS14, EHL13, Hac13, HS14, KL12d, Pfl00]. **TeraGrid** [PYA09]. **Term** [Hac13, LP09, LP11]. **TermoFluids** [LPSB09]. **Terms** [DFR14, SK00]. **Terrain** [NPS02]. **Tertiary** [CCT02]. **Tessellation** [CCT02]. **Tessellations** [JRG11]. **Test** [BLR02, BG12b, CVvSW99, Gen08, GL06, GL10, HBW⁺06, WW98]. **Testing** [BH00, BW03c, Rog12]. **Tests** [SHK99, VPC⁺05]. **Tetrahedra** [EM08]. **Tetrahedral** [BP08]. **Tevatron** [SJB06]. **TH** [HDY05]. **TH-Domain** [HDY05]. **Their** [Ber11, BFL07, Dit15, GZ08a, JRG11, HD03, Rüd99]. **Theorem** [HC08a]. **Theorems** [Buf03]. **Theoretical** [VL12, Oht02, RJB03]. **Theories** [dFJ05]. **Theorists** [Fle05]. **Theory** [Ano05f, Ano08x, Ano08z, BCH02, BCH⁺06, CKS00b, CM03b, DKW08a, DKB⁺13, EKS99, EL13, HC04, Kir03, KBG12, KOR99, Lud10, Lun04, McC06, Med00, PS08, PLW05, PDB06, PJPGB14, SGC07, Ull14, Wid09a, YLT05, vR01f, Lan00]. **Thermal** [BLS06, BGKM15, KPM99, MSU01, MG05, PJPGB14, RL11b, RK05, YR05]. **Thermally** [SK09]. **Thermo** [KGSW12]. **Thermo-Hydro-Mechanical-Chemical** [KGSW12]. **Thermodynamics**

[Sch03b]. **Thermomechanics** [XWW⁺12]. **theta** [Klo01b]. **theta-Method** [Klo01b]. **Thick** [SBMD06]. **Thickened** [BFL07]. **Thin** [BAF03, GWC11, HRGD02, SKD06, SDSU01, SR08]. **Thin-Sample** [BAF03]. **Thin-Walled** [HRGD02]. **Think** [DF11]. **Thinks** [Vel00]. **Thinning** [Isk04h]. **Third** [BFJ⁺05, GMCL14]. **Third-Order** [GMCL14]. **Thomson** [For14]. **Three** [AE12, AYM11, AIMY11, ASS09, BS02b, BD09, BGN05, CM03a, DDS07, DW07, GKEK10, Hie05, HSZ13b, Jun98, KW05, KB03, KT08, Laa08b, LP11, MHB07, MS05b, RL05, SMT08, Tu07, VS07, YM09, YKI09]. **Three-Dimensional** [AYM11, AIMY11, ASS09, DDS07, GKEK10, HSZ13b, Jun98, KB03, YM09, KT08, Laa08b]. **Three-Field** [RL05]. **Three-level** [Tu07]. **Three-Scale** [VS07]. **Thrust** [Bet99]. **Tight** [WLYL09, WLLY09]. **Tight-binding** [WLYL09, WLLY09]. **Time** [AAGP14, AG15, AE12, AES05, APJ09, BYJ08, BM02a, BGPR02, BM01, BQGC15, Ber99b, BH08a, BCT⁺04, BGKM15, BHJ07, Bof03, BG13, EGLS14, CM11, CV05a, CV05b, CM12, CL05b, CVvSW99, Dao07, DD03, DBZ15, Dem03b, DAG15, DLM14, DFF11, Dur11b, DZ05, EKS99, EHR12, FS04, FHM05, Fis15, Fun97h, Gan08b, Gar08, GH08c, GEF05, GH13a, GC15, GFS06, Got15, HC04, HJ08, HJS11a, HMI07, HDA⁺04, HHR08, HL99, JM99, JW15, JS09, Jol03, Kir03, Kwo14, LCD07, Lam11, LKV00, MT05, MAM07, MLB11, NR99, NG04, ÖD09a, PL11, RWS08, RV02, RFV03, Roy01, SUGL09, SAG⁺06, ST05, SI99, SG06, SS01, Swe06, TNG04, Ull14, UWN⁺15, VG05, WCJ06, ZDZR15, dRLT08, vVVK10, AMQR14, Bar07b, Cod11, FBHK15, GH07, HFHK15, HJS11b]. **time** [HO14, LB11, POD09, TSSA06, WMA12, YAS⁺00]. **Time-Accurate** [SUGL09]. **Time-Adaptive** [GH13a]. **Time-Delay** [FS04, NG04, VG05]. **Time-Dependent** [APJ09, CM11, Fis15, GFS06, JS09, Jol03, Kwo14, Lam11, LKV00, MAM07, RWS08, SAG⁺06, SG06, Swe06, Ull14, ZDZR15, AES05, HHR08]. **Time-domain** [LCD07]. **Time-Harmonic** [EGLS14, Dem03b, Kir03, RV02, RFV03]. **Time-Invariant** [CV05a]. **Time-Marching** [DBZ15]. **Time-Splitting** [AAGP14]. **Time-Stable** [HMI07]. **Time-Stepping** [JW15, UWN⁺15]. **Time-Varying** [CV05b, TNG04]. **timescales** [Van09a, Van09b]. **Timestep** [Sch99a]. **Timestepping** [DZ05]. **Tissue** [KHW15]. **Tissues** [LC11]. **Titanium** [AG03]. **Titratable** [ABOGB99]. **Tokamaks** [BMP14]. **Tolerant** [GL07a, HKH⁺15]. **Tool** [Atk00, CDH06, GSDP09, GF12, Kro02, Lon03, MB09a, MT02, NN12, PQD12]. **Toolbox** [BBMU13, SS05a]. **Toolkits** [HLM⁺03]. **Tools** [Beh06n, DB12, DW13, DS11, Gás15, JM06, Joh04h, LBQ00, MZ03]. **Tooth** [SR05a, SKR04]. **Topics** [ADD⁺03, LT03]. **Topological** [HH00, LSZ14]. **Topology** [GSS14, KB03, PBF08]. **Topology-Preserving** [PBF08]. **Total** [OMS11b]. **Towing** [BFF09]. **TP2000** [KGW99]. **Trace** [Buf03, HJHLP14, LS09a]. **Tracking** [GBS02, NZ08, PvR00, XGL05]. **Traffic** [BW03a, BW03c, FS13, SN03, TH03]. **Train** [Tsc02]. **Trajectories**

[ERO99, LR11]. **Trajectory** [Bet99, GWMW02]. **Transducers** [DGH⁺99]. **Transfer** [BS05, DK09b, FK08, Gan06, HM11, Hub06, HS06b, Kas06, LYK05, MCB02, Mor06, SK03, SDKI08, Wag00]. **Transfers** [CD07]. **Transform** [CD08b, GH14a]. **Transformation** [HWB15, NN12]. **Transformations** [AG03, BPV08, Tad08]. **Transformer** [BKP01]. **Transforming** [BB06c, BV08]. **Transforms** [BV98, Sta02]. **Transient** [BWH02, Den02, DVM⁺01, GHT09, KKJ⁺01, PBG08, ZAEK14]. **Transients** [BRP03, VDM⁺01]. **Transistor** [PBG08, PAR01]. **Transition** [CRS06, Hen99, EVE04, GE09, MLV09, Per11]. **transitional** [MML12]. **Transitions** [ATK10, EK02, HM99, TV99, Voj06]. **Transmission** [AB05, BKS11, BH08b, CGHS11, HHS⁺01, HM08, MK03]. **Transonic** [WGGC09]. **Transparent** [EGLS14, KEK14, ZAEK14, ZDZR15]. **Transport** [AA04, ASB⁺06, Bal06, BFM14, Bär02, Bas03, BBM⁺12, BIK02, BB06a, BHKV03, BDH⁺04, BBCK12, CKM⁺13, CH00, Cas08, Clo06, CJS00, DMBS06, Dav06, DAC00, Dur03, EG08, EEGW08, FRXT99, Fun97f, Fun97g, GT08, Gen08, GFS06, Gra06, Gra08b, Gra08a, GKKS07, HDF11, How05, Isk04d, Kan99, KSM03, KHW15, Lar06, LUN11, McC06, MLCM06, Mil08, Pek03, Rin11, Sco06, SKD02, SAB⁺06, SAG⁺06, SBC⁺12, SBMD06, VO05, VW03, ENS03]. **Transport-Diffusion** [Fun97g]. **Transport-Dominated** [Fun97f]. **Transport-Reaction** [EG08]. **Transportation** [WS03]. **Transported** [JM12]. **Trapezoidal** [Klo01b, Klo01a]. **Travelling** [JKAG15]. **Treating** [TMPM02, YR05]. **Treatment** [Beh06k, BWK06, BFM⁺99, HJL00, SG14, Sch03j, Sch11b, SO04, TW03, VRMD00, vR01h, MG09b]. **Treatments** [FPR10]. **Tree** [KKY00, Nau08, Sch03k]. **Treecode** [KD02]. **Trees** [GS08a]. **treeverse** [WG99]. **Trefftz** [CLP09, HDY05]. **Trends** [BKP01, MBS15, Rüd99]. **Tresca** [DM11, RSK11]. **Triangles** [LWL11, RMK11]. **Triangular** [BP08, OMS11b]. **Triangulation** [DW07]. **Trondheim** [HR11]. **Truncated** [GSS09]. **Truncation** [Dit15, GL05, MS05c]. **Trust** [BS02a, GK09b]. **Trust-Region** [GK09b]. **Tsallis** [SA99]. **TSHMC** [AR06]. **Tubular** [ZFB02]. **tumors** [WD09]. **Tunable** [HBZ05]. **Tuned** [DHW02]. **Tuner** [NPLM01]. **Tunisia** [AHE13]. **Turbid** [Gan06]. **Turbine** [SUGL09]. **Turbines** [MBR11, SGP07]. **Turbomachinery** [ABM00a, ABM00b, BBC⁺14b]. **Turbulence** [BGM14, CD07, CDW07, Fas00, FRXT99, GC07, Hen99, MSD00, MGB09, SGC07]. **Turbulence-Transport** [FRXT99]. **Turbulent** [BR00b, BdS07, CGDV07, Din02, HJJ⁺12, Joh04f, KFMK05, KS09b, KiSO⁺11, LPK11, LQW02, MHB07, MRRS99, MNP07, NI11, OSF11, RL11a, SGT09, TGSS09, VV02, Wag99, vdHB10, BLT⁺11, HLL11, LPSB09, ZS09]. **Turning** [dFO09b]. **Twinning** [Tad04]. **Two** [BG98, BC11, BS02b, CM11, DMBS06, DVH00, DNSS13, DW07, DG09, EK02, Fai02, Fas00, HSMS11, HL07a, Hie05, HO03, JS14, KL05, KRP08, KB03, KT05b, LT02, LC11, MC05a, Mar07, MN05, MSD00, MC05b, NÖU09, NR14a, ÖD09b, RS11, RMSB05, Sch02, SU13, TS15, Uri11, Wan13, Gro11, Sch11b]. **Two-** [KB03]. **Two-Dimensional** [RS11, KL05]. **Two-Dimensions**

[MC05b]. **Two-Equation** [Fas00, MSD00]. **Two-Grid** [MC05b].
Two-Lagrange [RMSB05]. **Two-Level**
[BG98, BC11, DVH00, DNSS13, DG09, KT05b, LT02, LC11, MC05a, Wan13].
Two-Phase [NÖU09, SU13, HSMS11, Gro11]. **Two-Scale** [EK02, HL07a].
Two-Scaled [JS14]. **Two-Sided** [NR14a]. **Two-Way** [TS15]. **Two-Weight**
[CM11]. **Type** [Ano02v, Bar01, DNR09, Fre05a, GHHL14, GT08, Gás00,
GTK06, GL05, Gut00, HH14a, KN02, Kha04, RSR04, Rie11, Sch98, WT10,
Bv01, GK07, ME09]. **Typed** [WB12]. **Types** [Fom03].

UFC [ALM12]. **UFL** [Aln12]. **Unbounded** [Pec13g]. **Uncertainties**
[CC06]. **Uncertainty**
[Bar13, BS13, BLMS13, DPL13, DC12, DWB13, FDP15, HDA⁺04, Hel08,
JR13, JM12, MBS15, MSS13, PDL11, TMB15, TS15, TSM14, WI13, YT12a].
Uncoupling [FSDC02, SFMF05]. **Uncoupling-Coupling**
[FSDC02, SFMF05]. **Undercooled** [Dan03, Her03]. **Underground**
[BBD05]. **Underlying** [GH08b]. **Underresolved** [BGM14]. **understood**
[SACP09]. **Unfitted** [BZ12]. **Unicorn** [HJD⁺12]. **Unified**
[BDE⁺05, Zha00, HJD⁺12]. **Uniform**
[Bog11, Dub11, Shi11, VM09, NI11, Ste98]. **Uniformly** [AZ11, CG11].
Unilateral [LSZ14]. **Unique** [Tis01]. **Uniqueness** [Joh04c]. **Units** [RS06].
Unity [BDyS15, EG08, GS02c, GO05, GS07c, HMP15, Sar02, Sch03g, Sch03i,
Sch03k, Sch08b, Sch11b, Sch13b, SZ15]. **Universal** [LM11b, Yab02].
Universalities [GC07]. **University** [FLMS00]. **Unknowns** [FB07].
Unstable [LGCD04]. **Unsteady**
[DKK09, GMCL14, NDBG14, Sah09, WS02, RVD11, SA09]. **Unstructured**
[ASFB99, AYM11, Bar99, BLT⁺11, CH11, EGZ99, HBCC14, HMI07, IT09b,
KB07, LPH00, LGM⁺00, PMSK00, SS02, Tay11, War00, WKR00, WT09,
YM09, BLSO09, GA09, LPSB09]. **Unsymmetric** [GGN07, Sch11a].
Unusual [WGF⁺03, KLRT12]. **Upscaling** [BBD05, EEGW08]. **Upstream**
[CZC11]. **Upwind** [BH15, Kuh02, OGWW98, PMSK00, WKR00]. **URANS**
[ÖNG12]. **Urban** [Dur03]. **USA** [KBH15]. **Use**
[ASB⁺06, DNR08, FA12, Gás02, Hac13, KKY00, Kuc15, TZ11]. **Used**
[LMR11b]. **Useful** [Chi06]. **User** [MS99]. **Using**
[AM09, ACC09, AC08, ABOGB99, ABM00a, ABM00b, BFF09, BOT02,
CL06a, CL12b, CB08, CL05b, CDWW01, CXX12, CH03, DDS07, DB12,
DS15b, DN08, Dub11, DC12, DPW⁺05, EE08, Eng00, EF00, FBHL00,
FKAF11, GGG13, GBG⁺05, HSMS11, HDF11, HLM⁺03, JM99, JE11,
KFN11, Kie12, KCO09, KGW99, KM12b, LM03a, LH12, LPH00, LSL⁺00,
LBCP02, MY11, MB01, MN05, MAAB06, MLG08, MB10, Neu03, NDBG14,
NCF08, OM99, PDF11, PFG08, PDH08, PS08, PQD12, PAR01, RGBvR01,
SZ07, SHH⁺01, SW01, SKTR02, SS05b, TI09, TIN⁺11, TR07, Var05, WCJ06,
War00, WT09, XGL05, Zao08, ZFB02, ZAEK14, BLT⁺11, BC02b, CCT02,
CC09, Daw05, DKP00, FWGB02, Gás00, GKEK10, IWK⁺11, KR09, KS04,
ME09, PPC07, SPS⁺03, Vie06, WLLY09, XXM06, YM09]. **Utah** [KBH15].

Utility [CJS00]. **Utilization** [HWB15]. **Uzawa** [GK07, KS11]. **Uzawa-type** [GK07].

V [HW98, GS11c, SHB14, SKvR01]. **vaccine** [SACP09]. **Validation** [Gra08b, Hol11i, SDKI08, FK11a]. **Valuation** [GH13b, KRU14]. **Value** [AT08, Beb08b, JW15, Jun98, KPJ13, VM09, D'A15]. **Valued** [Olv11]. **Values** [BB08]. **Vapor** [KKLD02]. **Vapour** [SKD02]. **Vapours** [oCPiPDSKN03]. **Variability** [KK09b]. **Variable** [BV08, Dem01, Lam11, MZ14, NS02, TB07, ZCC11]. **Variable-Coefficient** [Lam11]. **Variables** [BC12, HMW02]. **Variably** [KS02b]. **Variance** [BC12]. **Variant** [RX07]. **Variate** [Boy11a]. **Variation** [OMS11b]. **Variational** [Ano08-35, BGM03, BDS08, CDH06, DH05b, DHS07, DR06, GHHL14, Joh04o, Jol03, Kor98, LM05, LLR11, KL12c, KL12a, KL12d, ØW12b]. **Variety** [Gus00b, Gus00c]. **Various** [BCL15, BP04, CZC11, OT09]. **Varying** [CV05b, GKB06, TNG04]. **Vasa** [GHT09]. **Vascular** [FN02, TPA11]. **Vector** [BP03, BG11, HH15, Rie11, TIN⁺11, ZSS⁺15, vdESvG05, MNO⁺05]. **Vector-Parallel** [TIN⁺11]. **Vector/** [MNO⁺05]. **Vectorial** [Gás11]. **Vectorized** [WT09]. **Vectors** [WW98, Qui11]. **Vegetation** [Gan06]. **Vehicle** [BvC02, JKAG15, KCO09]. **Vehicles** [PKKS11, Tsc02]. **Velocity** [RE02, Uri11, Yse02b, GD09]. **Verification** [Cas08, GP08a, Gra08b, HK08b, LM11a, Mil08, NR02a]. **Verlet** [IMM⁺02]. **Version** [BSS14, HDY05, MBR⁺07]. **Versions** [Gás13, GK06]. **Versus** [CMLU12, FY13]. **Vertex** [TBP06]. **Vertical** [MBR11, Thu11d]. **Very** [BBC⁺14a, Bet99, WT10]. **VI** [DRV00, GO05, GS13b]. **via** [Ber09, Che05, CXX12, GDRC02, GP08b, GY12, HH14c, HJHLP14, LR11, PC06, PBG08, RP12, RFV03, SACP09]. **Vibrating** [Ala11]. **Vibration** [SH11a, ZS09]. **Vibrations** [MK03, Tsc99]. **View** [LUN11, Ull14]. **Viewpoint** [CLS12]. **VII** [GS07c, GS14]. **VIII** [Sch08b]. **Virtual** [CVvSW99, DeF00, GMS11, PQD12, WLP⁺06]. **Virus** [Che00]. **Virus-Host** [Che00]. **viruses** [SACP09]. **Visco** [RS12]. **Visco-Resistive** [RS12]. **Viscoelastic** [BVB00, FdlPFC15, JL05]. **Viscoplastic** [CH00]. **Viscosity** [GP11, KT07a, KT07b, KFJ07, MZ14, Tza99, WGF⁺03]. **Viscous** [CDLL11, GHM11, IT09a, KTC07, Mar05, SUGL09, SDP98, VC05]. **Viscous-Inviscid** [VC05]. **Vision** [SHK99]. **Visualisation** [PBF08]. **Visualization** [BHM⁺00, Che00, CDH⁺00, Dor00, Eng00, EJHS00, GZ08a, GKWZ08, HC00, Kes00, KSGW00, NPS02, PB00, RSBE02, TBK13]. **Visualizations** [PYA09]. **VLSI** [DFR01]. **VMS** [HDF11]. **Vocal** [SH11a]. **Voice** [KT05a]. **Volatility** [FKMS08]. **Voltage** [KSW02]. **Volume** [Amm08, AK00, AIMY11, Bar05, BS14a, BB06a, BH08b, FNSW05, GMCL14, GE02, HBCC14, HK10, HK02, Jun02, KFD07, Kon00, LUN11, MSS13, Mül03a, NCF08, Rin11, SKD02, dFS11, Qui11]. **Voronoi** [JRG11]. **Vortex** [CM09, CDW07, DPW⁺05, GT11, MLI07, MGB09, ZS09]. **Vortex-Dominated** [DPW⁺05, MGB09]. **vortex-induced** [ZS09]. **Vorticity** [Rin11]. **Voxel** [MAK⁺15]. **VR** [TKG⁺00]. **vs** [MH08, RL11a].

Wake [CDW07, MLI07, SK09]. **Walker** [Hoo03]. **Walks** [FSA⁺06]. **Wall** [AQ14, BBC⁺14b, Bor05b, CZC11, KT07a, KT07b, MD07, RL11a]. **Wall-Bounded** [RL11a]. **Wall-Modeling** [MD07]. **Walled** [HRGD02]. **Walls** [LPK11, SRCB02]. **Warm** [BMPC14, GDRT14b, HR14, LBR14, SSA⁺14]. **Warnemünde** [vRGH01]. **Warped** [DK09b]. **Waste** [BBTD05]. **Water** [AMW02, Beh06m, BvdW11, FB13, FGR02, JKAG15, Mar05, Qad08, SK00, YC11a, LPT12, ZPK04]. **Wave** [ADD⁺03, AMQR14, BH15, CGPT05, CM03b, Daw05, DS15b, DEGL11a, EY12, EHR12, Gra14, HP09, JE11, Joh04g, Jol03, KO08, MZ14, MS06, OMSA14, SZ10, TT12, Uri11, Ysel13]. **Wave-Function** [MS06]. **Waveform** [BHJ07, BU13, CGHS11, DDG11, GR05, GHK07, GHLSR08, GGH11, HH14a, Hal07, HJ08, HS08, Hal08, Hal09, HJS11a, HJS11b, HHR08, Hay11, Kwo14, LG09, LG11, Mar05, TPA11]. **waveguide** [LD12]. **Waveguides** [BK01]. **Wavelet** [CDFS14, CDD⁺14, DHU00, ER02, GWZ14, HKS06, Run09a, Run09b, SS02, Urb02c, Urb02d, BF02, Bru11]. **Wavelet-Based** [ER02]. **Wavelet/** [BF02]. **Wavelets** [Cou00, Run09a, Run09b, Urb02e, Ste98]. **Waves** [BvdW11, Cho05, Dur11a, GWC11, Kir03, NL05, NGD⁺15, TT11, dRLT08, LPT12]. **Way** [Lou04, TS15, YT12b, LS09b]. **Weak** [DK09b, FK08, RL11a]. **Weakly** [Ste15, WB12]. **Weakly-Typed** [WB12]. **Weather** [GK06, Mav11, PDS⁺05, Roo11]. **Web** [ACS09]. **Weeks** [CD08b]. **Weight** [CM11]. **Weighted** [NR02b, PS11, Sch05, Zun08]. **Weights** [Fas02]. **Well** [LN15]. **Well-Posedness** [LN15]. **WENO** [BA14, NGD⁺15, Shu99]. **Wet** [HW02]. **Which** [Joh04g]. **Whitney** [BR14b]. **Whose** [Dit15]. **Wide** [YS11]. **Wilson** [Gut00, Lip00]. **Wind** [HRGD02, HSGI10, MBR11, SUGL09, SDS02]. **Wind-Exposed** [HRGD02]. **Windmill** [GSDP09]. **Windows** [CMEA09]. **Wing** [SGT09, TOG09a, TOG09b, PE09]. **Wing-Flap** [TOG09a]. **Wings** [DKK09]. **Winter** [ERT12]. **Wires** [GWC11, TMPM02]. **wise** [Hol11b, Hol11c]. **with/without** [KiSO⁺11]. **within** [BBMU13]. **Without** [DG08, KL11, FB07]. **Woodwind** [RS11]. **Work** [PS14]. **Working** [Bro00]. **Workplace** [TBK13]. **Workshop** [ABC⁺14, BMS05c, BFJ⁺05, CFH⁺03, ERT12, FLMS00, PLW05, SG02, vRGH01]. **World** [DKB⁺13]. **Wound** [VAvA10]. **Wrinkling** [BFL07]. **Wuppertal** [FLMS00].

X [Che11, For14]. **X-Ray** [For14]. **XFEM** [Gro11, WGKM10]. **XIX** [HKWX11]. **XVI** [WK07]. **XVII** [LDK⁺08]. **XVIII** [BGKW09]. **XX** [Ban13]. **XXI** [EGH⁺14].

Yacht [DP09]. **Yachts** [VPRF11]. **Yamaguchi** [BCM02]. **Yang** [Qad08]. **Years** [FBHL00]. **Yin** [Qad08]. **York** [SG02].

Z [Che11]. **zero** [DEGL11b, SG14]. **Zolotarev** [Ken05]. **Zoom** [HLP09].

References

Augoula:2000:DPA

- [AA00] Steve Augoula and Rémi Abgrall. A discontinuous projection algorithm for Hamilton Jacobi equations. In Cockburn et al. [CKS00b], pages 255–261. CODEN LNCSA6. ISBN 3-540-66787-3, 3-642-64098-2 (print), 3-642-59721-1 (e-book). ISSN 1439-7358 (print), 2197-7100 (electronic). LCCN TA347.F5 D57 2000. URL http://link.springer.com/chapter/10.1007/978-3-642-59721-3_19/. Papers from the first international symposium on DGM Newport, Rhode Island, USA, May 24–26, 1999.

Abdulle:2004:HMT

- [AA04] Assyr Abdulle and Sabine Attinger. Homogenization method for transport of DNA particles in heterogeneous arrays. In Attinger and Koumoutsakos [AK04], pages 23–33. CODEN LNCSA6. ISBN 3-540-21180-2 (print), 3-642-18756-0 (e-book). ISSN 1439-7358 (print), 2197-7100 (electronic). LCCN TA342 .M85 2004. URL http://link.springer.com/content/pdf/10.1007/978-3-642-18756-8_2. Proceedings of a Summer Program in Multi-Scale Modelling and Simulation held in Lugano, Switzerland, between August 4th and 30th, 2003.

Antonietti:2008:CPD

- [AA08] Paola F. Antonietti and Blanca Ayuso. Class of preconditioners for discontinuous Galerkin approximations of elliptic problems. In Langer et al. [LDK⁺08], pages 185–192. CODEN LNCSA6. ISBN 3-540-75198-X (print), 3-540-75199-8 (e-book). ISSN 1439-7358 (print), 2197-7100 (electronic). LCCN QA402.2 .I55 2006. URL http://link.springer.com/content/pdf/10.1007/978-3-540-75199-1_19. 17th International Conference on Domain Decomposition Methods held at St. Wolfgang/Strobl, Austria, July 3–7, 2006.

Andersson:2012:CSP

- [AÅD12] Joel Andersson, Johan Åkesson, and Moritz Diehl. CasADi: a symbolic package for automatic differentiation and optimal control. In Forth et al. [FHP⁺12], pages 297–307. CODEN LNCSA6. ISBN 3-642-30022-7 (print), 3-642-30023-5 (e-book). ISSN 1439-7358 (print), 2197-7100 (electronic). LCCN ????. URL <http://link.springer.com/content/pdf/10.>

1007/978-3-642-30023-3_27. Proceedings of the Sixth International Conference on Automatic Differentiation (AD2012) held July 23–27, 2012, in Fort Collins, Colorado, USA.

Ahusborde:2011:COS

- [AAG11] E. Ahusborde, M. Azaïez, and R. Gruber. Constraint oriented spectral element method. In Hesthaven and Rønquist [HR11], pages 93–100. CODEN LNCSA6. ISBN 3-642-15336-4 (print), 3-642-15337-2 (e-book). ISSN 1439-7358 (print), 2197-7100 (electronic). LCCN ????. URL http://link.springer.com/content/pdf/10.1007/978-3-642-15337-2_6.

Ahusborde:2014:COB

- [AAGP14] E. Ahusborde, M. Azaïez, S. Glockner, and A. Poux. A contribution to the outflow boundary conditions for Navier–Stokes time-splitting methods. In Azaïez et al. [AHE13], pages 75–86. ISBN 3-319-01600-8 (hardcover). ISSN 1439-7358 (print), 2197-7100 (electronic). LCCN ????. URL http://link.springer.com/chapter/10.1007/978-3-319-01601-6_5/.

Aharoni:2000:PID

- [AB00] Dan Aharoni and Amnon Barak. Parallel iterative discontinuous Galerkin finite-element methods. In Cockburn et al. [CKS00b], pages 247–254. CODEN LNCSA6. ISBN 3-540-66787-3, 3-642-64098-2 (print), 3-642-59721-1 (e-book). ISSN 1439-7358 (print), 2197-7100 (electronic). LCCN TA347.F5 D57 2000. URL http://link.springer.com/chapter/10.1007/978-3-642-59721-3_18/. Papers from the first international symposium on DGM Newport, Rhode Island, USA, May 24–26, 1999.

Antoine:2005:CAB

- [AB05] X. Antoine and H. Barucq. On the construction of approximate boundary conditions for solving the interior problem of the acoustic scattering transmission problem. In Kornhuber et al. [KHP⁺05], pages 133–140. CODEN LNCSA6. ISBN 3-540-22523-4 (print), 3-540-26825-1 (e-book). ISSN 1439-7358 (print), 2197-7100 (electronic). LCCN QA402.2 .I55 2003. URL http://link.springer.com/content/pdf/10.1007/3-540-26825-1_9. Papers from the 15th International Conference on Domain Decomposition, Freie Universität Berlin (FU), Berlin, Germany, July 21–25, 2003.

Abgrall:2014:HON

- [ABC⁺14] Rémi Abgrall, Héloïse Beaugendre, Pietro Marco Congedo, Cécile Dobrzynski, Vincent Perrier, and Mario Ricchiuto, editors. *High Order Nonlinear Numerical Schemes for Evolutionary PDEs: Proceedings of the European Workshop HONOM 2013, Bordeaux, France, March 18-22, 2013*, volume 99 of *Lecture Notes in Computational Science and Engineering*. Springer-Verlag Inc., New York, NY, USA, 2014. ISBN 3-319-05454-6 (paperback), 3-319-05455-4 (e-book). ISSN 1439-7358 (print), 2197-7100 (electronic). LCCN QA374 .A384 2014.

Arnold:2000:DGM

- [ABCM00] Douglas N. Arnold, Franco Brezzi, Bernardo Cockburn, and Donatella Marini. Discontinuous Galerkin methods for elliptic problems. In Cockburn et al. [CKS00b], pages 89–101. CODEN LNCSA6. ISBN 3-540-66787-3, 3-642-64098-2 (print), 3-642-59721-1 (e-book). ISSN 1439-7358 (print), 2197-7100 (electronic). LCCN TA347.F5 D57 2000. URL http://link.springer.com/chapter/10.1007/978-3-642-59721-3_5/. Papers from the first international symposium on DGM Newport, Rhode Island, USA, May 24–26, 1999.

Abdulle:2012:EMS

- [Abd12] Assyr Abdulle. Explicit methods for stiff stochastic differential equations. In Engquist et al. [ERT12], pages 1–22. CODEN LNCSA6. ISBN 3-642-21942-X (print), 3-642-21943-8 (e-book). ISSN 1439-7358 (print), 2197-7100 (electronic). LCCN ???? URL http://link.springer.com/content/pdf/10.1007/978-3-642-21943-6_1.

Alin:2000:TLE

- [ABFL00] Niklas Alin, Magnus Berglund, Christer Fureby, and Eric Lillberg. Towards large eddy simulation of complex flows. In Engquist et al. [EJHS00], pages 181–194. CODEN LNCSA6. ISBN 3-540-67264-8 (print), 3-642-57313-4 (e-book). ISSN 1439-7358 (print), 2197-7100 (electronic). LCCN QA76.9.C65 S535 2000. URL http://link.springer.com/chapter/10.1007/978-3-642-57313-2_19/.

Akcelik:2007:MDD

- [ABG07] Volkan Akcelik, George Biros, and Omar Ghattas. MINISYMPOSIUM 1: Domain decomposition methods for simulation-constrained optimization. In Widlund and Keyes [WK07],

page 153. CODEN LNCSA6. ISBN 3-540-34468-3 (print), 3-540-34469-1 (e-book). ISSN 1439-7358 (print), 2197-7100 (electronic). LCCN QA402.2 .I55 2005. URL http://link.springer.com/content/pdf/10.1007/978-3-540-34469-8_13. Proceedings of the *Sixteenth International Conference on Domain Decomposition Methods*, New York City, January 11–15, 2005.

Anaya:2015:PFR

- [ABLS15] Verónica Anaya, Mostafa Bendahmane, Michel Langlais, and Mauricio Sepúlveda. Pattern formation for a reaction diffusion system with constant and cross diffusion. In Abdulle et al. [ADK⁺15], pages 153–161. ISBN 3-319-10704-6 (paperback), 3-319-10705-4 (e-book). ISSN 1439-7358 (print), 2197-7100 (electronic). LCCN QA76.9.M35 .E976 2015. URL http://link.springer.com/chapter/10.1007/978-3-319-10705-9_15/.

Arnone:2000:TCP

- [ABM00a] A. Arnone, P. Boncinelli, and M. Marconcini. Turbomachinery computations on parallel computers using a multigrid method. In Dick et al. [DRV00], pages 44–51. CODEN LNCSA6. ISBN 3-540-67157-9 (print), 3-642-58312-1 (e-book). ISSN 1439-7358 (print), 2197-7100 (electronic). LCCN QA377 .E94 1999. URL <http://link.springer.com/book/10.1007/978-3-642-58312-4>; <http://www.springerlink.com/content/978-3-642-58312-4>.

Arpone:2000:TCP

- [ABM00b] Andrea Arpone, Paolo Boncinelli, and Michele Marconcini. Turbomachinery computations on parallel computers using a multigrid method. In Dick et al. [DRV00], pages 44–51. CODEN LNCSA6. ISBN 3-540-67157-9 (print), 3-642-58312-1 (e-book). ISSN 1439-7358 (print), 2197-7100 (electronic). LCCN QA377 .E94 1999. URL http://link.springer.com/chapter/10.1007/978-3-642-58312-4_5/.

Antosiewicz:1999:PPT

- [ABOGB99] Jan Antosiewicz, Elzbieta Blachut-Okrasińska, Tomasz Grycuk, and James M. Briggs. Prediction of pK as of titratable residues in proteins using a Poisson–Boltzmann model of the solute-solvent system. In Deuffhard et al. [DHL⁺99], pages 176–196. CODEN LNCSA6. ISBN 3-540-63242-5 (print),

3-642-58360-1 (e-book). ISSN 1439-7358 (print), 2197-7100 (electronic). LCCN QP517.M65 I56 1999. URL http://link.springer.com/chapter/10.1007/978-3-642-58360-5_10/.

Abrams:2004:DRM

- [Abr04] Cameron F. Abrams. Dual resolution molecular simulation of bisphenol — a polycarbonate adsorption onto nickel (111): Chain length effects. In Attinger and Koumoutsakos [AK04], pages 131–141. CODEN LNCSA6. ISBN 3-540-21180-2 (print), 3-642-18756-0 (e-book). ISSN 1439-7358 (print), 2197-7100 (electronic). LCCN TA342 .M85 2004. URL http://link.springer.com/content/pdf/10.1007/978-3-642-18756-8_9. Proceedings of a Summer Program in Multi-Scale Modelling and Simulation held in Lugano, Switzerland, between August 4th and 30th, 2003.

Altieri:1999:RPL

- [ABT99] M. Altieri, Chr. Becker, and S. Turek. On the realistic performance of linear algebra components in iterative solvers. In Bungartz et al. [BDZ99], pages 3–12. CODEN LNCSA6. ISBN 3-540-65730-4 (print), 3-642-60155-3 (e-book). ISSN 1439-7358 (print), 2197-7100 (electronic). LCCN Q183.9.I58 1998. URL http://link.springer.com/chapter/10.1007/978-3-642-60155-2_1/.

Antonietti:2015:MFD

- [ABV15] P. F. Antonietti, Nadia Bigoni, and Marco Verani. Mimetic finite difference method for shape optimization problems. In Abdulle et al. [ADK⁺15], pages 125–132. ISBN 3-319-10704-6 (paperback), 3-319-10705-4 (e-book). ISSN 1439-7358 (print), 2197-7100 (electronic). LCCN QA76.9.M35 .E976 2015. URL http://link.springer.com/chapter/10.1007/978-3-319-10705-9_12/.

Ammar:2005:PSS

- [AC05] Amine Ammar and Francisco Chinesta. A particle strategy for solving the Fokker–Planck equation modelling the fiber orientation distribution in steady recirculating flows involving short fiber suspensions. In Griebel and Schweitzer [GS05], pages 1–15. CODEN LNCSA6. ISBN 3-540-23026-2 (print), 3-540-27099-X (e-book). ISSN 1439-7358 (print), 2197-7100 (electronic). LCCN QA377 .M452 2005. URL http://link.springer.com/content/pdf/10.1007/3-540-27099-X_1. Proceedings of the Second International Workshop on

Meshfree Methods for Partial Differential Equations, Institut für Numerische Simulation Rheinische Friedrich–Wilhelms Universität Bonn, September 15–17, 2003.

Ammar:2008:CCD

- [AC08] Amine Ammar and Francisco Chinesta. Circumventing curse of dimensionality in the solution of highly multidimensional models encountered in quantum mechanics using meshfree finite sums decomposition. In Griebel and Schweitzer [GS08d], pages 1–17. CODEN LNCSA6. ISBN 3-540-79993-1 (print), 3-540-79994-X (e-book). ISSN 1439-7358 (print), 2197-7100 (electronic). LCCN ????. URL http://link.springer.com/content/pdf/10.1007/978-3-540-79994-8_1. Fourth International Workshop on Meshfree Methods for Partial Differential Equations held from September 17 to September 20, 2007 in Bonn, Germany.

Agarwal:2011:LBS

- [AC11] Ramesh K. Agarwal and Lee Chusak. Lattice Boltzmann simulations of slip flow of Non–Newtonian fluids in microchannels. In Tromeur-Dervout et al. [TDBEE11], pages 247–256. CODEN LNCSA6. ISBN 3-642-14437-3 (print), 3-642-14438-1 (e-book). ISSN 1439-7358 (print), 2197-7100 (electronic). LCCN ????. URL http://link.springer.com/content/pdf/10.1007/978-3-642-14438-7_26. Proceedings of the twentieth meeting, Parallel CFD 2008, held May 19–22, 2008 in Lyon, France.

Agarwal:2009:CHF

- [ACC09] R. K. Agarwal, R. Chen, and F. G. Cheremisin. Computation of hypersonic flow of a diatomic gas in rotational non-equilibrium past a blunt body using the generalized Boltzmann equation. In Tuncer et al. [TGEM09], pages 115–122. CODEN LNCSA6. ISBN 3-540-92743-3 (print), 3-540-92744-1 (e-book). ISSN 1439-7358 (print), 2197-7100 (electronic). LCCN ????. URL http://link.springer.com/content/pdf/10.1007/978-3-540-92744-0_14. Parallel CFD 2007 was held in Antalya, Turkey, from May 21 to 24, 2007.

Arandiga:2002:AHF

- [ACD02] F. Arandiga, G. Chiavassa, and R. Donat. Applications of Harten’s framework for multiresolution: From conservation laws to image compression. In Barth et al.

[BCH02], pages 281–296. CODEN LNCSA6. ISBN 3-540-42420-2 (print), 3-642-56205-1 (e-book). ISSN 1439-7358 (print), 2197-7100 (electronic). LCCN QA403.3 .M85 2002. URL http://link.springer.com/content/pdf/10.1007/978-3-642-56205-1_6. Papers from the Yosemite Educational Symposium (YES), Yosemite valley, California, Fall 2000.

Adar:2009:MWS

- [ACS09] Nihat Adar, Selçuk Canbek, and Erol Seke. Modeling a Web service-based decentralized parallel programming environment. In Tuncer et al. [TGEM09], pages 465–472. CODEN LNCSA6. ISBN 3-540-92743-3 (print), 3-540-92744-1 (e-book). ISSN 1439-7358 (print), 2197-7100 (electronic). LCCN ???? URL http://link.springer.com/content/pdf/10.1007/978-3-540-92744-0_58. Parallel CFD 2007 was held in Antalya, Turkey, from May 21 to 24, 2007.

Arnold:2005:NMQ

- [ACvdE+05] Guido Arnold, Nigel Cundy, Jasper van den Eshof, Andreas Frommer, and Stefan Krieg. Numerical methods for the QCD overlap operator: II. optimal Krylov subspace methods. In Boriçi et al. [BFJ+05], pages 153–167. CODEN LNCSA6. ISBN 3-540-21257-4 (print), 3-540-28504-0 (e-book). ISSN 1439-7358 (print), 2197-7100 (electronic). LCCN QC793.3.Q35 I56 2003. URL http://link.springer.com/content/pdf/10.1007/3-540-28504-0_15.

Arora:2011:ARK

- [AD11] Konark Arora and Suresh M. Deshpande. Accuracy and robustness of Kinetic meshfree method. In Griebel and Schweitzer [GS11c], pages 173–188. CODEN LNCSA6. ISBN 3-642-16228-2 (print), 3-642-16229-0 (e-book). ISSN 1439-7358 (print), 2197-7100 (electronic). LCCN ???? URL http://link.springer.com/content/pdf/10.1007/978-3-642-16229-9_11. Proceedings of the Fifth International Workshop on Meshfree Methods for Partial Differential Equations held from August 17 to August 19, 2009 in Bonn, Germany.

Ainsworth:2003:TCW

- [ADD+03] Mark Ainsworth, Penny Davies, Dugald Duncan, Paul Martin, and Bryan Rynne, editors. *Topics in Computational Wave Propagation: Direct and Inverse Problems*,

volume 31 of *Lecture Notes in Computational Science and Engineering*. Springer-Verlag Inc., New York, NY, USA, 2003. CODEN LNCSA6. ISBN 3-540-00744-X (print), 3-642-55483-0 (e-book). ISSN 1439-7358 (print), 2197-7100 (electronic). LCCN QC661 .T67 2003. URL <http://link.springer.com/book/10.1007/978-3-642-55483-4>; <http://www.springerlink.com/content/978-3-642-55483-4>

4. Proceedings of the LMS Durham Symposium on Computational Methods for Wave Propagation in Direct Scattering University of Durham, 15–25 July 2002.

Aprovitola:2011:SAM

[ADDdS11] Andrea Aprovitola, Pasqua D’Ambra, Filippo Denaro, and Daniela di Serafino. Scalable algebraic multilevel preconditioners with application to CFD. In Tromeur-Dervout et al. [TDBEE11], pages 15–27. CODEN LNCSA6. ISBN 3-642-14437-3 (print), 3-642-14438-1 (e-book). ISSN 1439-7358 (print), 2197-7100 (electronic). LCCN ???? URL http://link.springer.com/content/pdf/10.1007/978-3-642-14438-7_2. Proceedings of the twentieth meeting, Parallel CFD 2008, held May 19–22, 2008 in Lyon, France.

Abdulle:2015:NMA

[ADK+15] Assyr Abdulle, Simone Deparis, Daniel Kreßner, Fabio Nobile, and Marco Picasso, editors. *Numerical mathematics and advanced applications ENUMATH 2013: proceedings of ENUMATH 2013, the 10th European Conference on Numerical Mathematics and Advanced Applications, Lausanne, August 2013*, volume 103 of *Lecture Notes in Computational Science and Engineering*. Springer-Verlag Inc., New York, NY, USA, 2015. ISBN 3-319-10704-6 (paperback), 3-319-10705-4 (e-book). ISSN 1439-7358 (print), 2197-7100 (electronic). LCCN QA76.9.M35 .E976 2015.

Altmayer:2014:CQM

[ADL...14] Martin Altmayer, Steffen Dereich, Sangmeng Li, and Thomas Müller-Gronbach Constructive quantization and multilevel algorithms for quadrature of stochastic differential equations. In Dahlke et al. [DDG+14], pages 109–132. ISBN 3-319-08159-4. LCCN ???? URL http://link.springer.com/chapter/10.1007/978-3-319-08159-5_6/.

Ariel:2012:OST

- [AE12] Gil Ariel and Björn Engquist. Oscillatory systems with three separated time scales: Analysis and computation. In Engquist et al. [ERT12], pages 23–45. CODEN LNCSA6. ISBN 3-642-21942-X (print), 3-642-21943-8 (e-book). ISSN 1439-7358 (print), 2197-7100 (electronic). LCCN ???? URL http://link.springer.com/content/pdf/10.1007/978-3-642-21943-6_2.

Ariel:2009:MCH

- [AEKT09] Gil Ariel, Björn Engquist, Heinz-Otto Kreiss, and Richard Tsai. Multiscale computations for highly oscillatory problems. In Engquist et al. [ELR09], pages 237–287. CODEN LNCSA6. ISBN 3-540-88856-X (paperback), 3-540-88857-8 (e-book). ISSN 1439-7358 (print), 2197-7100 (electronic). LCCN Q183.9 .M86 2009. URL http://link.springer.com/content/pdf/10.1007/978-3-540-88857-4_5. Summer School on Multiscale Modeling and Simulation in Science, Bosön, Lidingö outside Stockholm, Sweden, June 2007.

Arnold:2005:AFC

- [AES05] Anton Arnold, Matthias Ehrhardt, and Ivan Sofronov. Approximation and fast calculation of non-local boundary conditions for the time-dependent Schrödinger equation. In Kornhuber et al. [KHP⁺05], pages 141–148. CODEN LNCSA6. ISBN 3-540-22523-4 (print), 3-540-26825-1 (e-book). ISSN 1439-7358 (print), 2197-7100 (electronic). LCCN QA402.2 .I55 2003. URL http://link.springer.com/content/pdf/10.1007/3-540-26825-1_10. Papers from the 15th International Conference on Domain Decomposition, Freie Universität Berlin (FU), Berlin, Germany, July 21–25, 2003.

Arbenz:1999:ESE

- [AG99] P. Arbenz and R. Geus. Eigenvalue solvers for electromagnetic fields in cavities. In Bungartz et al. [BDZ99], pages 363–373. CODEN LNCSA6. ISBN 3-540-65730-4 (print), 3-642-60155-3 (e-book). ISSN 1439-7358 (print), 2197-7100 (electronic). LCCN Q183.9.I58 1998. URL http://link.springer.com/chapter/10.1007/978-3-642-60155-2_30/.

Appolaire:2003:MPT

- [AG03] Benott Appolaire and Elisabeth Gautier. Modelling of phase transformations in titanium alloys with a phase-field model. In

Emmerich et al. [ENS03], page ?? CODEN LNCSA6. ISBN 3-540-40367-1. ISSN 1439-7358 (print), 2197-7100 (electronic). LCCN QC173.4.I57 I57 2003. URL <http://www.loc.gov/catdir/enhancements/fy0818/2003060231-d.html>. Papers from the workshop on “Computational Physics of Transport and Interfacial Dynamics”, Dresden, February 25–March 8, 2002.

Alyoubi:2015:PTS

- [AG15] Ahmad Alyoubi and Mahadevan Ganesh. A parallel-in-time-and-space HPC framework for a class of fractional evolution equations. In Kirby et al. [KBH15], pages 127–135. ISBN 3-319-19799-1, 3-319-19800-9 (e-book). LCCN QA377. URL http://link.springer.com/chapter/10.1007/978-3-319-19800-2_9/.

Antil:2008:MSP

- [AGH⁺08] Harbir Antil, Andreas Gantner, Ronald H. W. Hoppe, Daniel Köster, and Kunibert Siebert. Modeling and simulation of piezoelectrically agitated acoustic streaming on microfluidic biochips. In Langer et al. [LDK⁺08], pages 305–312. CODEN LNCSA6. ISBN 3-540-75198-X (print), 3-540-75199-8 (e-book). ISSN 1439-7358 (print), 2197-7100 (electronic). LCCN QA402.2 .I55 2006. URL http://link.springer.com/content/pdf/10.1007/978-3-540-75199-1_36. 17th International Conference on Domain Decomposition Methods held at St. Wolfgang/Strobl, Austria, July 3–7, 2006.

Adcock:2015:RPS

- [AGH15] Ben Adcock, Milana Gataric, and Anders C. Hansen. Recovering piecewise smooth functions from nonuniform Fourier measurements. In Kirby et al. [KBH15], pages 117–125. ISBN 3-319-19799-1, 3-319-19800-9 (e-book). LCCN QA377. URL http://link.springer.com/chapter/10.1007/978-3-319-19800-2_8/.

Aarnes:2005:MDG

- [AH05] Jørg Aarnes and Bjørn-Ove Heimsund. Multiscale discontinuous Galerkin methods for elliptic problems with multiple scales. In Engquist et al. [ERL05], pages 1–20. CODEN LNCSA6. ISBN 3-540-25335-1 (print), 3-540-26444-2 (e-book). ISSN 1439-7358 (print), 2197-7100 (electronic). LCCN TA347.F5 M85 2005. URL http://link.springer.com/content/pdf/10.1007/3-540-26444-2_1. Proceedings

of *Multiscale Methods in Science and Engineering*, Uppsala, Sweden, January 26–28, 2004.

Adcock:2011:MMF

- [AH11] Ben Adcock and Daan Huybrechs. Multivariate modified Fourier expansions. In Hesthaven and Rønquist [HR11], pages 85–92. CODEN LNCSA6. ISBN 3-642-15336-4 (print), 3-642-15337-2 (e-book). ISSN 1439-7358 (print), 2197-7100 (electronic). LCCN ????. URL http://link.springer.com/content/pdf/10.1007/978-3-642-15337-2_5.

Azaiez:2013:SHO

- [AHE13] Mejdi Azaïez, Jan S. Hesthaven, and Henda El Fekih, editors. *Spectral and High Order Methods for Partial Differential Equations — Icosahom '12 Selected Papers from the Icosahom Conference, June 25–29, 2012, Gammarth, Tunisia*, volume 95 of *Lecture Notes in Computational Science and Engineering*. Springer-Verlag Inc., New York, NY, USA, 2013. ISBN 3-319-01600-8 (hardcover). ISSN 1439-7358 (print), 2197-7100 (electronic). LCCN ????. URL <http://www.springerlink.com/content/978-3-319-01601-6>.

Adams:2007:RBS

- [AHK07] N. A. Adams, S. Hickel, and T. Kempe. On the relation between subgrid-scale modeling and numerical discretization in large-eddy simulation. In Kassinos et al. [KLIM07], pages 15–27. CODEN LNCSA6. ISBN 3-540-34233-8 (print), 3-540-34234-6 (e-book). ISSN 1439-7358 (print), 2197-7100 (electronic). LCCN TA357.5.T87 C66 2007. URL http://link.springer.com/content/pdf/10.1007/978-3-540-34234-2_2. Proceedings of the symposium on *Complex Effects in Large Eddy Simulation* held in Lemesos (Limassol), Cyprus, September 21–24, 2005.

Antil:2009:AMI

- [AHL09] Harbir Antil, Ronald H. W. Hoppe, and Christopher Linsenmann. Adaptive multilevel interior-point methods in PDE constrained optimization. In Bercovier et al. [BGKW09], pages 15–26. CODEN LNCSA6. ISBN 3-642-02676-1 (print), 3-642-02677-X (e-book). ISSN 1439-7358 (print), 2197-7100 (electronic). LCCN QA402.2 .I584 2009. URL http://link.springer.com/content/pdf/10.1007/978-3-642-02677-5_2.

AyusoDeDios:2013:MPN

- [AHZZ13] Blanca Ayuso De Dios, Michael Holst, Yunrong Zhu, and Ludmil Zikatanov. Multigrid preconditioner for nonconforming discretization of elliptic problems with jump coefficients. In Bank [Ban13], pages 183–190. ISBN 3-642-35274-X (hardcover), 3-642-35275-8 (e-book). ISSN 1439-7358 (print), 2197-7100 (electronic). LCCN QA402.2 .I58 2011. URL http://link.springer.com/chapter/10.1007/978-3-642-35275-1_20/.

Asao:2011:PDM

- [AIMY11] Shinichi Asao, Sadanori Ishihara, Kenichi Matsuno, and Masashi Yamakawa. Progressive development of moving-grid finite-volume method for three-dimensional incompressible flows. In Tromeur-Dervout et al. [TDBEE11], pages 127–134. CODEN LNCSA6. ISBN 3-642-14437-3 (print), 3-642-14438-1 (e-book). ISSN 1439-7358 (print), 2197-7100 (electronic). LCCN ???? URL http://link.springer.com/content/pdf/10.1007/978-3-642-14438-7_13. Proceedings of the twentieth meeting, Parallel CFD 2008, held May 19–22, 2008 in Lyon, France.

Anton:2000:AVR

- [AK00] H. Anton and J. Koning. Applications of volume rendering in the CAVE. In Engquist et al. [EJHS00], pages 112–121. CODEN LNCSA6. ISBN 3-540-67264-8 (print), 3-642-57313-4 (e-book). ISSN 1439-7358 (print), 2197-7100 (electronic). LCCN QA76.9.C65 S535 2000. URL http://link.springer.com/chapter/10.1007/978-3-642-57313-2_13/.

Attinger:2004:MMS

- [AK04] Sabine Attinger and Petros Koumoutsakos, editors. *Multiscale Modelling and Simulation*, volume 39 of *Lecture Notes in Computational Science and Engineering*. Springer-Verlag Inc., New York, NY, USA, 2004. CODEN LNCSA6. ISBN 3-540-21180-2 (print), 3-642-18756-0 (e-book). ISSN 1439-7358 (print), 2197-7100 (electronic). LCCN TA342 .M85 2004. URL <http://link.springer.com/book/10.1007/978-3-642-18756-8>; <http://www.springerlink.com/content/978-3-642-18756-8>. Proceedings of a Summer Program in Multi-Scale Modelling and Simulation held in Lugano, Switzerland, between August 4th and 30th, 2003.

Abdel-Khalik:2008:LRA

- [AKH08] Hany S. Abdel-Khalik and Paul D. Hovland. A low rank approach to automatic differentiation. In Bischof et al. [BBH⁺08], pages 55–65. CODEN LNCSA6. ISBN 3-540-68935-4 (print), 3-540-68942-7 (e-book). ISSN 1439-7358 (print), 2197-7100 (electronic). LCCN QA304 .I58 2008. URL http://link.springer.com/content/pdf/10.1007/978-3-540-68942-3_6.

Akkermans:2006:LEG

- [Akk06] Reinier L. C. Akkermans. The Langevin equation for generalized coordinates. In Leimkuhler et al. [LCE⁺06], pages 155–165. CODEN LNCSA6. ISBN 3-540-25542-7 (print), 3-540-31618-3 (e-book). ISSN 1439-7358 (print), 2197-7100 (electronic). LCCN QP517.M3 N49 2006. URL http://link.springer.com/content/pdf/10.1007/3-540-31618-3_10. Papers from the fourth edition of *Algorithms for Macromolecular Modelling*, Leicester, UK August 2004.

Ahmadia:2009:DDH

- [AKM⁺09] Aron Ahmadia, David Keyes, David Melville, Alan Rosenbluth, and Kehan Tian. Distributed decomposition over hyperspherical domains. In Bercovier et al. [BGKW09], pages 251–258. CODEN LNCSA6. ISBN 3-642-02676-1 (print), 3-642-02677-X (e-book). ISSN 1439-7358 (print), 2197-7100 (electronic). LCCN QA402.2 .I584 2009. URL http://link.springer.com/content/pdf/10.1007/978-3-642-02677-5_27.

Ashby:2005:MIS

- [AKO05] T. J. Ashby, A. D. Kennedy, and M. F. P. O’Boyle. A modular iterative solver package in a categorical language. In Boriçi et al. [BFJ⁺05], pages 123–132. CODEN LNCSA6. ISBN 3-540-21257-4 (print), 3-540-28504-0 (e-book). ISSN 1439-7358 (print), 2197-7100 (electronic). LCCN QC793.3.Q35 I56 2003. URL http://link.springer.com/content/pdf/10.1007/3-540-28504-0_12.

Alexandrov:2003:FOA

- [AL03] Natalia M. Alexandrov and Robert Michael Lewis. First-order approximation and model management in optimization. In Biegler et al. [BGHvBW03a], pages 63–79. CODEN LNCSA6. ISBN 3-540-05045-0 (print), 3-642-55508-

X (e-book). ISSN 1439-7358 (print), 2197-7100 (electronic). LCCN QA402.5 .L358 2003. URL http://link.springer.com/content/pdf/10.1007/978-3-642-55508-4_4.

Alassar:2011:MAS

- [Ala11] Rajai S. Alassar. Modeling acoustic streaming on a vibrating particle. In Clavero et al. [CGL11], pages 1–10. CODEN LNCSA6. ISBN 3-642-19664-0 (print), 3-642-19665-9 (e-book). ISSN 1439-7358 (print), 2197-7100 (electronic). LCCN ????. URL http://link.springer.com/content/pdf/10.1007/978-3-642-19665-2_1. Selected papers from the proceedings of BAIL 2010 (Boundary and Interior Layers — Computational and Asymptotic Methods), held from 5 to 9 July 2010 at the University of Zaragoza, Spain.

Albinus:1999:RCA

- [Alb99] G. Albinus. Remarks on the convex analysis of the energy model of semiconductor devices. In Bungartz et al. [BDZ99], pages 375–385. CODEN LNCSA6. ISBN 3-540-65730-4 (print), 3-642-60155-3 (e-book). ISSN 1439-7358 (print), 2197-7100 (electronic). LCCN Q183.9.I58 1998. URL http://link.springer.com/chapter/10.1007/978-3-642-60155-2_31/.

Arnold:2013:EMD

- [ALK13] Axel Arnold, Olaf Lenz, and Stefan Kesselheim. ESPResSo 3.1: Molecular dynamics software for coarse-grained models. In Griebel and Schweitzer [GS13b], pages 1–23. CODEN LNCSA6. ISBN 3-642-32978-0 (print), 3-642-32979-9 (e-book). ISSN 1439-7358 (print), 2197-7100 (electronic). LCCN QA297 .I58 2011. URL http://link.springer.com/content/pdf/10.1007/978-3-642-32979-1_1. Proceedings of the Sixth International Workshop on Meshfree Methods for Partial Differential Equations, October 4–6, 2011, Bonn, Germany.

Aarnes:2009:MMS

- [ALKK09] Jørg E. Aarnes, Knut-Andreas Lie, Vegard Kippe, and Stein Krogstad. Multiscale methods for subsurface flow. In Engquist et al. [ELR09], pages 3–48. CODEN LNCSA6. ISBN 3-540-88856-X (paperback), 3-540-88857-8 (e-book). ISSN 1439-7358 (print), 2197-7100 (electronic). LCCN Q183.9 .M86

2009. URL http://link.springer.com/content/pdf/10.1007/978-3-540-88857-4_1. Summer School on Multiscale Modeling and Simulation in Science, Bosön, Lidingö outside Stockholm, Sweden, June 2007.

Alnaes:2012:UFEa

- [ALM12] Martin Sandve Alnæs, Anders Logg, and Kent-Andre Mardal. UFC: a finite element code generation interface. In Logg et al. [LMW12a], pages 283–302. CODEN LNCSA6. ISBN 3-642-23098-9 (print), 3-642-23099-7 (e-book). ISSN 1439-7358 (print), 2197-7100 (electronic). LCCN ????. URL http://link.springer.com/content/pdf/10.1007/978-3-642-23099-8_16. The software developed by the FEniCS Project is free for all to use and modify (licensed under the GNU (L)GPL), and so is this book.

Alnaes:2012:UFEb

- [Aln12] Martin Sandve Alnæs. UFL: a finite element form language. In Logg et al. [LMW12a], pages 303–338. CODEN LNCSA6. ISBN 3-642-23098-9 (print), 3-642-23099-7 (e-book). ISSN 1439-7358 (print), 2197-7100 (electronic). LCCN ????. URL http://link.springer.com/content/pdf/10.1007/978-3-642-23099-8_17. The software developed by the FEniCS Project is free for all to use and modify (licensed under the GNU (L)GPL), and so is this book.

Altmann:2011:EDG

- [Alt11] Christoph Altmann. An explicit discontinuous Galerkin scheme with divergence cleaning for magnetohydrodynamics. In Hesthaven and Rønquist [HR11], pages 357–364. CODEN LNCSA6. ISBN 3-642-15336-4 (print), 3-642-15337-2 (e-book). ISSN 1439-7358 (print), 2197-7100 (electronic). LCCN ????. URL http://link.springer.com/content/pdf/10.1007/978-3-642-15337-2_33.

ASAO:2009:PCI

- [AM09] Shinichi Asao and Kenichi Matsuno. Parallel computation of incompressible flows driven by moving multiple obstacles using a new moving embedded-grid method. In Tuncer et al. [TGEM09], pages 147–154. CODEN LNCSA6. ISBN 3-540-92743-3 (print), 3-540-92744-1 (e-book). ISSN 1439-7358 (print), 2197-7100 (electronic). LCCN

???? URL http://link.springer.com/content/pdf/10.1007/978-3-540-92744-0_18. Parallel CFD 2007 was held in Antalya, Turkey, from May 21 to 24, 2007.

Alnaes:2012:SSS

- [AM12] Martin Sandve Alnæs and Kent-Andre Mardal. SyFi and SFC: symbolic finite elements and form compilation. In Logg et al. [LMW12a], pages 273–282. CODEN LNCSA6. ISBN 3-642-23098-9 (print), 3-642-23099-7 (e-book). ISSN 1439-7358 (print), 2197-7100 (electronic). LCCN ????? URL http://link.springer.com/content/pdf/10.1007/978-3-642-23099-8_15. The software developed by the FEniCS Project is free for all to use and modify (licensed under the GNU (L)GPL), and so is this book.

Ammari:2008:MCE

- [Amm08] Habib Ammari, editor. *Modeling and Computations in Electromagnetics: a Volume Dedicated to Jean-Claude Nédélec*, volume 59 of *Lecture Notes in Computational Science and Engineering*. Springer-Verlag Inc., New York, NY, USA, 2008. CODEN LNCSA6. ISBN 3-540-73777-4 (print), 3-540-73778-2 (e-book). ISSN 1439-7358 (print), 2197-7100 (electronic). LCCN QC760.4.M37 M63 2008. URL <http://link.springer.com/book/10.1007/978-3-540-73778-0>; <http://www.springerlink.com/content/978-3-540-73778-0>.

Antonietti:2014:HOS

- [AMQR14] Paola F. Antonietti, Ilario Mazzieri, Alfio Quarteroni, and Francesca Rapetti. High order space–time discretization for elastic wave propagation problems. In Azaiez et al. [AHE13], pages 87–97. ISBN 3-319-01600-8 (hardcover). ISSN 1439-7358 (print), 2197-7100 (electronic). LCCN ????? URL http://link.springer.com/chapter/10.1007/978-3-319-01601-6_6/.

Auffinger:2002:SDC

- [AMW02] Pascal Auffinger, Benoit Masquida, and Eric Westhof. Structural and dynamical characterization of nucleic acid water and ion binding sites. In Schlick and Gan [SG02], pages 61–70. CODEN LNCSA6. ISBN 3-540-43756-8 (print), 3-642-56080-6 (e-book). ISSN 1439-7358 (print), 2197-7100 (electronic). LCCN QP517.M3 A384 2000. URL http://link.springer.com/content/pdf/10.1007/978-3-642-56080-4_3.

Achdou:2002:IFF

- [AN02] Yves Achdou and Frédéric Nataf. Iterated frequency filtering preconditioners. In Pavarino and Toselli [PT02], pages 173–188. CODEN LNCSA6. ISBN 3-540-43413-5 (print), 3-642-56118-7 (e-book). ISSN 1439-7358 (print), 2197-7100 (electronic). LCCN QA402.2 .R43 2002. URL http://link.springer.com/content/pdf/10.1007/978-3-642-56118-4_11. Papers presented at the Workshop on Domain Decomposition held at ETH, Zurich, June 7–8, 2001.

Andersson:2000:CDP

- [And00] Christer Andersson. Computation of dendrites on parallel distributed memory architectures. In Engquist et al. [EJHS00], pages 195–208. CODEN LNCSA6. ISBN 3-540-67264-8 (print), 3-642-57313-4 (e-book). ISSN 1439-7358 (print), 2197-7100 (electronic). LCCN QA76.9.C65 S535 2000. URL http://link.springer.com/chapter/10.1007/978-3-642-57313-2_20/.

Andjelic:2008:BON

- [And08] Zoran Andjelić. BEM: Opening the new frontiers in the industrial products design. In Langer et al. [LDK⁺08], pages 3–20. CODEN LNCSA6. ISBN 3-540-75198-X (print), 3-540-75199-8 (e-book). ISSN 1439-7358 (print), 2197-7100 (electronic). LCCN QA402.2 .I55 2006. URL http://link.springer.com/content/pdf/10.1007/978-3-540-75199-1_1. 17th International Conference on Domain Decomposition Methods held at St. Wolfgang/Strobl, Austria, July 3–7, 2006.

Annaswamy:2004:AAC

- [Ann04] Anuradha M. Annaswamy. Active-adaptive control of acoustic resonances in flows. In Niculescu and Gu [NG04], pages 299–309. CODEN LNCSA6. ISBN 3-540-20890-9 (print), 3-642-18482-0 (e-book). ISSN 1439-7358 (print), 2197-7100 (electronic). LCCN TJ213 .A253 2004. URL http://link.springer.com/content/pdf/10.1007/978-3-642-18482-6_22. Most of the chapters are based on the materials presented in the CNRS-NSF Workshop *Advances in Time-Delay Systems* held in Paris in January 22–24, 2003.

Anonymous:1997:BM

- [Ano97] Anonymous. Back matter. In *Spectral Elements for Transport-Dominated Equations* [Fun97f], pages 187–211. CODEN

LNCSA6. ISBN 3-540-62649-2 (print), 3-642-59185-X (e-book). ISSN 1439-7358 (print), 2197-7100 (electronic). LCCN QA377 .F85 1997. URL <http://link.springer.com/content/pdf/bbm:978-3-642-59185-3/1>.

Anonymous:1998:BM

- [Ano98a] Anonymous. Back matter. In Hackbusch and Wittum [HW98], pages 335–336. CODEN LNCSA6. ISBN 3-540-63133-X (softcover), 3-642-58734-8 (e-book). ISSN 1439-7358 (print), 2197-7100 (electronic). LCCN QA377 .E94 1996. URL <http://link.springer.com/content/pdf/bbm:978-3-642-58734-4/1>.

Anonymous:1998:FM

- [Ano98b] Anonymous. Front matter. In Hackbusch and Wittum [HW98], pages i–viii. CODEN LNCSA6. ISBN 3-540-63133-X (softcover), 3-642-58734-8 (e-book). ISSN 1439-7358 (print), 2197-7100 (electronic). LCCN QA377 .E94 1996. URL <http://link.springer.com/content/pdf/bfm:978-3-642-58734-4/1>.

Anonymous:1999:BMa

- [Ano99a] Anonymous. Back matter. In Kröner et al. [KOR99], pages 287–288. CODEN LNCSA6. ISBN 3-540-65081-4 (print), 3-642-58535-3 (e-book). ISSN 1439-7358 (print), 2197-7100 (electronic). LCCN QA901.I525 1997. URL <http://link.springer.com/content/pdf/bbm:978-3-642-58535-7/1>.

Anonymous:1999:BMb

- [Ano99b] Anonymous. Back matter. In Turek [Tur99c], pages 343–358. CODEN LNCSA6. ISBN 3-540-65433-X (hardcover), 3-642-58393-8 (e-book). ISSN 1439-7358 (print), 2197-7100 (electronic). LCCN TA357 .T895 1999. URL <http://link.springer.com/content/pdf/bbm:978-3-642-58393-3/1>. Includes CD-ROM.

Anonymous:1999:FMa

- [Ano99c] Anonymous. Front matter. In Deuffhard et al. [DHL⁺99], page 1. CODEN LNCSA6. ISBN 3-540-63242-5 (print), 3-642-58360-1 (e-book). ISSN 1439-7358 (print), 2197-7100 (electronic). LCCN QP517.M65 I56 1999. URL <http://link.springer.com/content/pdf/bfm:978-3-642-58360-5/1/1>.

Anonymous:1999:FMb

- [Ano99d] Anonymous. Front matter. In Deuffhard et al. [DHL⁺99], page 37. CODEN LNCSA6. ISBN 3-540-63242-5 (print), 3-642-58360-1 (e-book). ISSN 1439-7358 (print), 2197-7100 (electronic). LCCN QP517.M65 I56 1999. URL <http://link.springer.com/content/pdf/bfm:978-3-642-58360-5/2/1>.

Anonymous:1999:FMc

- [Ano99e] Anonymous. Front matter. In Deuffhard et al. [DHL⁺99], page 127. CODEN LNCSA6. ISBN 3-540-63242-5 (print), 3-642-58360-1 (e-book). ISSN 1439-7358 (print), 2197-7100 (electronic). LCCN QP517.M65 I56 1999. URL <http://link.springer.com/content/pdf/bfm:978-3-642-58360-5/3/1>.

Anonymous:1999:FMd

- [Ano99f] Anonymous. Front matter. In Deuffhard et al. [DHL⁺99], page 225. CODEN LNCSA6. ISBN 3-540-63242-5 (print), 3-642-58360-1 (e-book). ISSN 1439-7358 (print), 2197-7100 (electronic). LCCN QP517.M65 I56 1999. URL <http://link.springer.com/content/pdf/bfm:978-3-642-58360-5/4/1>.

Anonymous:1999:FMe

- [Ano99g] Anonymous. Front matter. In Deuffhard et al. [DHL⁺99], page 363. CODEN LNCSA6. ISBN 3-540-63242-5 (print), 3-642-58360-1 (e-book). ISSN 1439-7358 (print), 2197-7100 (electronic). LCCN QP517.M65 I56 1999. URL <http://link.springer.com/content/pdf/bfm:978-3-642-58360-5/5/1>.

Anonymous:1999:FMf

- [Ano99h] Anonymous. Front matter. In Deuffhard et al. [DHL⁺99], pages N1–XI. CODEN LNCSA6. ISBN 3-540-63242-5 (print), 3-642-58360-1 (e-book). ISSN 1439-7358 (print), 2197-7100 (electronic). LCCN QP517.M65 I56 1999. URL <http://link.springer.com/content/pdf/bfm:978-3-642-58360-5/1>.

Anonymous:1999:FMg

- [Ano99i] Anonymous. Front matter. In Kröner et al. [KOR99], pages i–vii. CODEN LNCSA6. ISBN 3-540-65081-4 (print), 3-642-58535-3 (e-book). ISSN 1439-7358 (print), 2197-7100 (electronic). LCCN QA901.I525 1997. URL <http://link.springer.com/content/pdf/bfm:978-3-642-58535-7/1>.

Anonymous:1999:FMh

- [Ano99j] Anonymous. Front matter. In Turek [Tur99c], pages i–xv. CODEN LNCSA6. ISBN 3-540-65433-X (hardcover), 3-642-58393-8 (e-book). ISSN 1439-7358 (print), 2197-7100 (electronic). LCCN TA357 .T895 1999. URL <http://link.springer.com/content/pdf/bfm:978-3-642-58393-3/1>. Includes CD-ROM.

Anonymous:1999:FMk

- [Ano99k] Anonymous. Front matter. In Bungartz et al. [BDZ99], pages i–x. CODEN LNCSA6. ISBN 3-540-65730-4 (print), 3-642-60155-3 (e-book). ISSN 1439-7358 (print), 2197-7100 (electronic). LCCN Q183.9.I58 1998. URL <http://link.springer.com/content/pdf/bfm:978-3-642-60155-2/1>.

Anonymous:1999:FMi

- [Ano99l] Anonymous. Front matter. In Bungartz et al. [BDZ99], page 1. CODEN LNCSA6. ISBN 3-540-65730-4 (print), 3-642-60155-3 (e-book). ISSN 1439-7358 (print), 2197-7100 (electronic). LCCN Q183.9.I58 1998. URL <http://link.springer.com/content/pdf/bfm:978-3-642-60155-2/1/1>.

Anonymous:1999:FMj

- [Ano99m] Anonymous. Front matter. In Bungartz et al. [BDZ99], page 125. CODEN LNCSA6. ISBN 3-540-65730-4 (print), 3-642-60155-3 (e-book). ISSN 1439-7358 (print), 2197-7100 (electronic). LCCN Q183.9.I58 1998. URL <http://link.springer.com/content/pdf/bfm:978-3-642-60155-2/2/1>.

Anonymous:2000:BMa

- [Ano00a] Anonymous. Back matter. In Langtangen et al. [LBQ00], pages 357–361. CODEN LNCSA6. ISBN 3-540-66557-9 (softcover), 3-642-57172-7 (e-book). ISSN 1439-7358 (print), 2197-7100 (electronic). LCCN QA76.6 .A336 2000. URL <http://link.springer.com/content/pdf/bbm:978-3-642-57172-5/1>. Papers from an International Workshop on Modern Software Tools for Scientific Computing (SciTools'98), Oslo, Norway, September 14–16, 1998.

Anonymous:2000:BMb

- [Ano00b] Anonymous. Back matter. In Frommer et al. [FLMS00], pages 177–188. CODEN LNCSA6. ISBN 3-540-67732-1 (print),

3-642-58333-4 (e-book). ISSN 1439-7358 (print), 2197-7100 (electronic). LCCN QC793.3.G38 N86 2000. URL <http://link.springer.com/content/pdf/bbm:978-3-642-58333-9/1>.

Anonymous:2000:FMa

- [Ano00c] Anonymous. Front matter. In Langtangen et al. [LBQ00], pages i–ix. CODEN LNCSA6. ISBN 3-540-66557-9 (softcover), 3-642-57172-7 (e-book). ISSN 1439-7358 (print), 2197-7100 (electronic). LCCN QA76.6 .A336 2000. URL <http://link.springer.com/content/pdf/bfm:978-3-642-57172-5/1>. Papers from an International Workshop on Modern Software Tools for Scientific Computing (SciTools'98), Oslo, Norway, September 14–16, 1998.

Anonymous:2000:FMe

- [Ano00d] Anonymous. Front matter. In Cockburn et al. [CKS00b], pages i–xi. CODEN LNCSA6. ISBN 3-540-66787-3, 3-642-64098-2 (print), 3-642-59721-1 (e-book). ISSN 1439-7358 (print), 2197-7100 (electronic). LCCN TA347.F5 D57 2000. URL <http://link.springer.com/content/pdf/bfm:978-3-642-59721-3/1>. Papers from the first international symposium on DGM Newport, Rhode Island, USA, May 24–26, 1999.

Anonymous:2000:F Mb

- [Ano00e] Anonymous. Front matter. In Cockburn et al. [CKS00b], page 1. CODEN LNCSA6. ISBN 3-540-66787-3, 3-642-64098-2 (print), 3-642-59721-1 (e-book). ISSN 1439-7358 (print), 2197-7100 (electronic). LCCN TA347.F5 D57 2000. URL <http://link.springer.com/content/pdf/bfm:978-3-642-59721-3/1/1>. Papers from the first international symposium on DGM Newport, Rhode Island, USA, May 24–26, 1999.

Anonymous:2000:F Mc

- [Ano00f] Anonymous. Front matter. In Cockburn et al. [CKS00b], page 51. CODEN LNCSA6. ISBN 3-540-66787-3, 3-642-64098-2 (print), 3-642-59721-1 (e-book). ISSN 1439-7358 (print), 2197-7100 (electronic). LCCN TA347.F5 D57 2000. URL <http://link.springer.com/content/pdf/bfm:978-3-642-59721-3/2/1>. Papers from the first international symposium on DGM Newport, Rhode Island, USA, May 24–26, 1999.

Anonymous:2000:FMd

- [Ano00g] Anonymous. Front matter. In Cockburn et al. [CKS00b], page 245. CODEN LNCSA6. ISBN 3-540-66787-3, 3-642-64098-2 (print), 3-642-59721-1 (e-book). ISSN 1439-7358 (print), 2197-7100 (electronic). LCCN TA347.F5 D57 2000. URL <http://link.springer.com/content/pdf/bfm:978-3-642-59721-3/3/1>. Papers from the first international symposium on DGM Newport, Rhode Island, USA, May 24–26, 1999.

Anonymous:2000:FMf

- [Ano00h] Anonymous. Front matter. In Engquist et al. [EJHS00], pages i–xiii. CODEN LNCSA6. ISBN 3-540-67264-8 (print), 3-642-57313-4 (e-book). ISSN 1439-7358 (print), 2197-7100 (electronic). LCCN QA76.9.C65 S535 2000. URL <http://link.springer.com/content/pdf/bfm:978-3-642-57313-2/1>.

Anonymous:2000:FMg

- [Ano00i] Anonymous. Front matter. In Dick et al. [DRV00], pages i–ix. CODEN LNCSA6. ISBN 3-540-67157-9 (print), 3-642-58312-1 (e-book). ISSN 1439-7358 (print), 2197-7100 (electronic). LCCN QA377 .E94 1999. URL <http://link.springer.com/content/pdf/bfm:978-3-642-58312-4/1>.

Anonymous:2000:FMh

- [Ano00j] Anonymous. Front matter. In Frommer et al. [FLMS00], pages i–viii. CODEN LNCSA6. ISBN 3-540-67732-1 (print), 3-642-58333-4 (e-book). ISSN 1439-7358 (print), 2197-7100 (electronic). LCCN QC793.3.G38 N86 2000. URL <http://link.springer.com/content/pdf/bfm:978-3-642-58333-9/1>.

Anonymous:2001:BMa

- [Ano01a] Anonymous. Back matter. In *Numerical Methods in Computational Electrodynamics: Linear Systems in Practical Applications* [vR01g], pages 337–379. CODEN LNCSA6. ISBN 3-540-67629-5 (print), 3-642-56802-5 (e-book). ISSN 1439-7358 (print), 2197-7100 (electronic). LCCN QC631.3 .V36 2000. URL <http://link.springer.com/content/pdf/bfm:978-3-642-56802-2/1>.

Anonymous:2001:BMb

- [Ano01b] Anonymous. Back matter. In *Discretization Methods and Iterative Solvers Based on Domain Decomposition* [Woh01d],

pages 177–202. CODEN LNCSA6. ISBN 3-540-41083-X (softcover), 3-642-56767-3 (e-book). ISSN 1439-7358 (print), 2197-7100 (electronic). LCCN QA402.2.W64 2001. URL <http://link.springer.com/content/pdf/bbm:978-3-642-56767-4/1>.

Anonymous:2001:FMa

- [Ano01c] Anonymous. Front matter. In van Rienen et al. [vRGH01], pages i–xii. CODEN LNCSA6. ISBN 3-540-42173-4 (softcover), 3-642-56470-4 (e-book). ISSN 1439-7358 (print), 2197-7100 (electronic). LCCN TK5 .S35 2001. URL <http://link.springer.com/content/pdf/bfm:978-3-642-56470-3/1>. Selected contributions presented at the 3rd International Workshop on Scientific Computing in Electrical Engineering.

Anonymous:2001:FMb

- [Ano01d] Anonymous. Front matter. In van Rienen et al. [vRGH01], page 1. CODEN LNCSA6. ISBN 3-540-42173-4 (softcover), 3-642-56470-4 (e-book). ISSN 1439-7358 (print), 2197-7100 (electronic). LCCN TK5 .S35 2001. URL <http://link.springer.com/content/pdf/bfm:978-3-642-56470-3/1/1>. Selected contributions presented at the 3rd International Workshop on Scientific Computing in Electrical Engineering.

Anonymous:2001:FMc

- [Ano01e] Anonymous. Front matter. In van Rienen et al. [vRGH01], page 177. CODEN LNCSA6. ISBN 3-540-42173-4 (softcover), 3-642-56470-4 (e-book). ISSN 1439-7358 (print), 2197-7100 (electronic). LCCN TK5 .S35 2001. URL <http://link.springer.com/content/pdf/bfm:978-3-642-56470-3/2/1>. Selected contributions presented at the 3rd International Workshop on Scientific Computing in Electrical Engineering.

Anonymous:2002:BMa

- [Ano02a] Anonymous. Back matter. In Babuška et al. [BCM02], pages 303–306. CODEN LNCSA6. ISBN 3-540-42399-0 (print), 3-642-56288-4 (e-book). ISSN 1439-7358 (print), 2197-7100 (electronic). LCCN QA808.2 .I59 2000. URL <http://link.springer.com/content/pdf/bbm:978-3-642-56288-4/1>.

Anonymous:2002:BMb

- [Ano02b] Anonymous. Back matter. In Barth et al. [BCH02], pages 379–394. CODEN LNCSA6. ISBN 3-540-42420-2 (print),

3-642-56205-1 (e-book). ISSN 1439-7358 (print), 2197-7100 (electronic). LCCN QA403.3 .M85 2002. URL <http://link.springer.com/content/pdf/bbm:978-3-642-56205-1/1>. Papers from the Yosemite Educational Symposium (YES), Yosemite valley, California, Fall 2000.

Anonymous:2002:BMc

- [Ano02c] Anonymous. Back matter. In *Wavelets in Numerical Simulation: Problem Adapted Construction and Applications* [Urb02e], pages 161–186. CODEN LNCSA6. ISBN 3-540-43055-5 (print), 3-642-56002-4 (e-book). ISSN 1439-7358 (print), 2197-7100 (electronic). LCCN QA403.3 .U73 2002. URL <http://link.springer.com/content/pdf/bbm:978-3-642-56002-6/1>.

Anonymous:2002:BMd

- [Ano02d] Anonymous. Back matter. In Pavarino and Toselli [PT02], pages 245–248. CODEN LNCSA6. ISBN 3-540-43413-5 (print), 3-642-56118-7 (e-book). ISSN 1439-7358 (print), 2197-7100 (electronic). LCCN QA402.2 .R43 2002. URL <http://link.springer.com/content/pdf/bbm:978-3-642-56118-4/1>. Papers presented at the Workshop on Domain Decomposition held at ETH, Zurich, June 7–8, 2001.

Anonymous:2002:BMe

- [Ano02e] Anonymous. Back matter. In Schlick and Gan [SG02], pages 496–508. CODEN LNCSA6. ISBN 3-540-43756-8 (print), 3-642-56080-6 (e-book). ISSN 1439-7358 (print), 2197-7100 (electronic). LCCN QP517.M3 A384 2000. URL <http://link.springer.com/content/pdf/bbm:978-3-642-56080-4/1>.

Anonymous:2002:FMA

- [Ano02f] Anonymous. Front matter. In Babuška et al. [BCM02], pages i–viii. CODEN LNCSA6. ISBN 3-540-42399-0 (print), 3-642-56288-4 (e-book). ISSN 1439-7358 (print), 2197-7100 (electronic). LCCN QA808.2 .I59 2000. URL <http://link.springer.com/content/pdf/bfm:978-3-642-56288-4/1>.

Anonymous:2002:FMd

- [Ano02g] Anonymous. Front matter. In Barth et al. [BCH02], pages i–x. CODEN LNCSA6. ISBN 3-540-42420-2 (print), 3-642-56205-1 (e-book). ISSN 1439-7358 (print), 2197-7100 (electronic).

LCCN QA403.3 .M85 2002. URL <http://link.springer.com/content/pdf/bfm:978-3-642-56205-1/1>. Papers from the Yosemite Educational Symposium (YES), Yosemite valley, California, Fall 2000.

Anonymous:2002:FMb

- [Ano02h] Anonymous. Front matter. In Barth et al. [BCH02], page 1. CODEN LNCSA6. ISBN 3-540-42420-2 (print), 3-642-56205-1 (e-book). ISSN 1439-7358 (print), 2197-7100 (electronic). LCCN QA403.3 .M85 2002. URL <http://link.springer.com/content/pdf/bfm:978-3-642-56205-1/1/1>. Papers from the Yosemite Educational Symposium (YES), Yosemite valley, California, Fall 2000.

Anonymous:2002:FMc

- [Ano02i] Anonymous. Front matter. In Barth et al. [BCH02], page 279. CODEN LNCSA6. ISBN 3-540-42420-2 (print), 3-642-56205-1 (e-book). ISSN 1439-7358 (print), 2197-7100 (electronic). LCCN QA403.3 .M85 2002. URL <http://link.springer.com/content/pdf/bfm:978-3-642-56205-1/2/1>. Papers from the Yosemite Educational Symposium (YES), Yosemite valley, California, Fall 2000.

Anonymous:2002:FMe

- [Ano02j] Anonymous. Front matter. In Breuer et al. [BDZ02], pages i–xiii. CODEN LNCSA6. ISBN 3-540-42946-8 (print), 3-642-55919-0 (e-book). ISSN 1439-7358 (print), 2197-7100 (electronic). LCCN Q183.9 .I58 2001. URL <http://link.springer.com/content/pdf/bfm:978-3-642-55919-8/1>.

Anonymous:2002:FMf

- [Ano02k] Anonymous. Front matter. In Pavarino and Toselli [PT02], pages i–xii. CODEN LNCSA6. ISBN 3-540-43413-5 (print), 3-642-56118-7 (e-book). ISSN 1439-7358 (print), 2197-7100 (electronic). LCCN QA402.2 .R43 2002. URL <http://link.springer.com/content/pdf/bfm:978-3-642-56118-4/1>. Papers presented at the Workshop on Domain Decomposition held at ETH, Zurich, June 7–8, 2001.

Anonymous:2002:FMo

- [Ano02l] Anonymous. Front matter. In Schlick and Gan [SG02], pages i–ix. CODEN LNCSA6. ISBN 3-540-43756-8 (print), 3-642-56080-6 (e-book). ISSN 1439-7358 (print), 2197-7100 (elec-

tronic). LCCN QP517.M3 A384 2000. URL <http://link.springer.com/content/pdf/bfm:978-3-642-56080-4/1>.

Anonymous:2002:FMg

- [Ano02m] Anonymous. Front matter. In Schlick and Gan [SG02], page 1. CODEN LNCSA6. ISBN 3-540-43756-8 (print), 3-642-56080-6 (e-book). ISSN 1439-7358 (print), 2197-7100 (electronic). LCCN QP517.M3 A384 2000. URL <http://link.springer.com/content/pdf/bfm:978-3-642-56080-4/1/1>.

Anonymous:2002:FMh

- [Ano02n] Anonymous. Front matter. In Schlick and Gan [SG02], page 29. CODEN LNCSA6. ISBN 3-540-43756-8 (print), 3-642-56080-6 (e-book). ISSN 1439-7358 (print), 2197-7100 (electronic). LCCN QP517.M3 A384 2000. URL <http://link.springer.com/content/pdf/bfm:978-3-642-56080-4/2/1>.

Anonymous:2002:FMi

- [Ano02o] Anonymous. Front matter. In Schlick and Gan [SG02], page 71. CODEN LNCSA6. ISBN 3-540-43756-8 (print), 3-642-56080-6 (e-book). ISSN 1439-7358 (print), 2197-7100 (electronic). LCCN QP517.M3 A384 2000. URL <http://link.springer.com/content/pdf/bfm:978-3-642-56080-4/3/1>.

Anonymous:2002:FMj

- [Ano02p] Anonymous. Front matter. In Schlick and Gan [SG02], page 175. CODEN LNCSA6. ISBN 3-540-43756-8 (print), 3-642-56080-6 (e-book). ISSN 1439-7358 (print), 2197-7100 (electronic). LCCN QP517.M3 A384 2000. URL <http://link.springer.com/content/pdf/bfm:978-3-642-56080-4/4/1>.

Anonymous:2002:FMk

- [Ano02q] Anonymous. Front matter. In Schlick and Gan [SG02], page 233. CODEN LNCSA6. ISBN 3-540-43756-8 (print), 3-642-56080-6 (e-book). ISSN 1439-7358 (print), 2197-7100 (electronic). LCCN QP517.M3 A384 2000. URL <http://link.springer.com/content/pdf/bfm:978-3-642-56080-4/5/1>.

Anonymous:2002:FMI

- [Ano02r] Anonymous. Front matter. In Schlick and Gan [SG02], page 285. CODEN LNCSA6. ISBN 3-540-43756-8 (print), 3-642-

56080-6 (e-book). ISSN 1439-7358 (print), 2197-7100 (electronic). LCCN QP517.M3 A384 2000. URL <http://link.springer.com/content/pdf/bfm:978-3-642-56080-4/6/1>.

Anonymous:2002:FMm

- [Ano02s] Anonymous. Front matter. In Schlick and Gan [SG02], page 357. CODEN LNCSA6. ISBN 3-540-43756-8 (print), 3-642-56080-6 (e-book). ISSN 1439-7358 (print), 2197-7100 (electronic). LCCN QP517.M3 A384 2000. URL <http://link.springer.com/content/pdf/bfm:978-3-642-56080-4/7/1>.

Anonymous:2002:FMn

- [Ano02t] Anonymous. Front matter. In Schlick and Gan [SG02], page 443. CODEN LNCSA6. ISBN 3-540-43756-8 (print), 3-642-56080-6 (e-book). ISSN 1439-7358 (print), 2197-7100 (electronic). LCCN QP517.M3 A384 2000. URL <http://link.springer.com/content/pdf/bfm:978-3-642-56080-4/8/1>.

Anonymous:2002:FMp

- [Ano02u] Anonymous. Front matter. In Griebel and Schweitzer [GS02b], pages i–ix. CODEN LNCSA6. ISBN 3-540-43891-2 (print), 3-642-56103-9 (e-book). ISSN 1439-7358 (print), 2197-7100 (electronic). LCCN QA377 .M45 2003. URL <http://link.springer.com/content/pdf/bfm:978-3-642-56103-0/1>. Proceedings of a workshop on Meshfree Methods for Partial Differential Equations, Institut für Angewandte Mathematik, Rheinische Friedrich-Wilhelms Universität Bonn, September 11–14, 2001.

Anonymous:2002:NSM

- [Ano02v] Anonymous. Nonlinear shell models of Koiter’s type. In Babuška et al. [BCM02], pages 1–9. CODEN LNCSA6. ISBN 3-540-42399-0 (print), 3-642-56288-4 (e-book). ISSN 1439-7358 (print), 2197-7100 (electronic). LCCN QA808.2 .I59 2000. URL http://link.springer.com/content/pdf/10.1007/978-3-642-56288-4_1.

Anonymous:2003:BMb

- [Ano03a] Anonymous. Back matter. In *Adaptive Multiscale Schemes for Conservation Laws* [Mül03b], pages 139–187. CODEN LNCSA6. ISBN 3-540-44325-8 (print), 3-642-18164-3 (e-book). ISSN 1439-7358 (print), 2197-7100 (electronic).

LCCN QA377 .M92 2003. URL <http://link.springer.com/content/pdf/bbm:978-3-642-18164-1/1>.

Anonymous:2003:BMc

- [Ano03b] Anonymous. Back matter. In Carstensen et al. [CFH⁺03], pages 200–214. CODEN LNCSA6. ISBN 3-540-44392-4 (print), 3-642-55745-7 (e-book). ISSN 1439-7358 (print), 2197-7100 (electronic). LCCN QC665.E4 G35 2001. URL <http://link.springer.com/content/pdf/bbm:978-3-642-55745-3/1>.

Anonymous:2003:BMd

- [Ano03c] Anonymous. Back matter. In *A Parallel Multilevel Partition of Unity Method for Elliptic Partial Differential Equations* [Sch03g], pages 161–199. CODEN LNCSA6. ISBN 3-540-00351-7 (print), 3-642-59325-9 (e-book). ISSN 1439-7358 (print), 2197-7100 (electronic). LCCN QA377 .S395 2003. URL <http://link.springer.com/content/pdf/bbm:978-3-642-59325-3/1>.

Anonymous:2003:BMe

- [Ano03d] Anonymous. Back matter. In Biegler et al. [BGHvBW03a], pages 343–355. CODEN LNCSA6. ISBN 3-540-05045-0 (print), 3-642-55508-X (e-book). ISSN 1439-7358 (print), 2197-7100 (electronic). LCCN QA402.5 .L358 2003. URL <http://link.springer.com/content/pdf/bbm:978-3-642-55508-4/1>.

Anonymous:2003:BMf

- [Ano03e] Anonymous. Back matter. In Ainsworth et al. [ADD⁺03], pages 395–405. CODEN LNCSA6. ISBN 3-540-00744-X (print), 3-642-55483-0 (e-book). ISSN 1439-7358 (print), 2197-7100 (electronic). LCCN QC661 .T67 2003. URL <http://link.springer.com/content/pdf/bbm:978-3-642-55483-4/1>. Proceedings of the LMS Durham Symposium on Computational Methods for Wave Propagation in Direct Scattering University of Durham, 15–25 July 2002.

Anonymous:2003:BMg

- [Ano03f] Anonymous. Back matter. In Langtangen and Tveito [LT03], pages 659–663. CODEN LNCSA6. ISBN 3-540-01438-1 (print), 3-642-18237-2 (e-book). ISSN 1439-7358 (print), 2197-7100 (electronic). LCCN QA377 .A45

2003. URL <http://link.springer.com/content/pdf/bbm:978-3-642-18237-2/1>.

Anonymous:2003:BMh

[Ano03g] Anonymous. Back matter. In Bänisch [Bän03], pages 287–293. CODEN LNCSA6. ISBN 3-642-62406-5 (print), 3-642-19014-6 (e-book). ISSN 1439-7358 (print), 2197-7100 (electronic). LCCN ????. URL <http://link.springer.com/content/pdf/bbm:978-3-642-19014-8/1>.

Anonymous:2003:BMa

[Ano03h] Anonymous. Back matter. In *Computational partial differential equations: numerical methods and Diffpack programming* [Lan03a], pages 633–861. ISBN 3-540-43416-X (softcover), 3-642-55769-4 (e-book). ISSN 1611-0994. LCCN QA377 .L355 2003. URL <http://link.springer.com/content/pdf/bbm:978-3-642-55769-9/1>.

Anonymous:2003:FMa

[Ano03i] Anonymous. Front matter. In Carstensen et al. [CFH⁺03], pages i–x. CODEN LNCSA6. ISBN 3-540-44392-4 (print), 3-642-55745-7 (e-book). ISSN 1439-7358 (print), 2197-7100 (electronic). LCCN QC665.E4 G35 2001. URL <http://link.springer.com/content/pdf/bfm:978-3-642-55745-3/1>.

Anonymous:2003:FMi

[Ano03j] Anonymous. Front matter. In Biegler et al. [BGHvBW03a], pages i–vi. CODEN LNCSA6. ISBN 3-540-05045-0 (print), 3-642-55508-X (e-book). ISSN 1439-7358 (print), 2197-7100 (electronic). LCCN QA402.5 .L358 2003. URL <http://link.springer.com/content/pdf/bfm:978-3-642-55508-4/1>.

Anonymous:2003:F Mb

[Ano03k] Anonymous. Front matter. In Biegler et al. [BGHvBW03a], page 1. CODEN LNCSA6. ISBN 3-540-05045-0 (print), 3-642-55508-X (e-book). ISSN 1439-7358 (print), 2197-7100 (electronic). LCCN QA402.5 .L358 2003. URL <http://link.springer.com/content/pdf/bfm:978-3-642-55508-4/1/1>.

Anonymous:2003:F Mc

[Ano03l] Anonymous. Front matter. In Biegler et al. [BGHvBW03a], page 15. CODEN LNCSA6. ISBN 3-540-05045-0 (print), 3-642-55508-X (e-book). ISSN 1439-7358 (print), 2197-7100

(electronic). LCCN QA402.5 .L358 2003. URL <http://link.springer.com/content/pdf/bfm:978-3-642-55508-4/2/1>.

Anonymous:2003:FMd

- [Ano03m] Anonymous. Front matter. In Biegler et al. [BGHvBW03a], page 61. CODEN LNCSA6. ISBN 3-540-05045-0 (print), 3-642-55508-X (e-book). ISSN 1439-7358 (print), 2197-7100 (electronic). LCCN QA402.5 .L358 2003. URL <http://link.springer.com/content/pdf/bfm:978-3-642-55508-4/3/1>.

Anonymous:2003:FMe

- [Ano03n] Anonymous. Front matter. In Biegler et al. [BGHvBW03a], page 115. CODEN LNCSA6. ISBN 3-540-05045-0 (print), 3-642-55508-X (e-book). ISSN 1439-7358 (print), 2197-7100 (electronic). LCCN QA402.5 .L358 2003. URL <http://link.springer.com/content/pdf/bfm:978-3-642-55508-4/4/1>.

Anonymous:2003:FMf

- [Ano03o] Anonymous. Front matter. In Biegler et al. [BGHvBW03a], page 165. CODEN LNCSA6. ISBN 3-540-05045-0 (print), 3-642-55508-X (e-book). ISSN 1439-7358 (print), 2197-7100 (electronic). LCCN QA402.5 .L358 2003. URL <http://link.springer.com/content/pdf/bfm:978-3-642-55508-4/5/1>.

Anonymous:2003:FMg

- [Ano03p] Anonymous. Front matter. In Biegler et al. [BGHvBW03a], page 251. CODEN LNCSA6. ISBN 3-540-05045-0 (print), 3-642-55508-X (e-book). ISSN 1439-7358 (print), 2197-7100 (electronic). LCCN QA402.5 .L358 2003. URL <http://link.springer.com/content/pdf/bfm:978-3-642-55508-4/6/1>.

Anonymous:2003:FMh

- [Ano03q] Anonymous. Front matter. In Biegler et al. [BGHvBW03a], page 299. CODEN LNCSA6. ISBN 3-540-05045-0 (print), 3-642-55508-X (e-book). ISSN 1439-7358 (print), 2197-7100 (electronic). LCCN QA402.5 .L358 2003. URL <http://link.springer.com/content/pdf/bfm:978-3-642-55508-4/7/1>.

Anonymous:2003:FMj

- [Ano03r] Anonymous. Front matter. In Ainsworth et al. [ADD⁺03], pages i–viii. CODEN LNCSA6. ISBN 3-540-00744-X (print), 3-642-55483-0 (e-book). ISSN 1439-7358 (print), 2197-7100

(electronic). LCCN QC661 .T67 2003. URL <http://link.springer.com/content/pdf/bfm:978-3-642-55483-4/1>. Proceedings of the LMS Durham Symposium on Computational Methods for Wave Propagation in Direct Scattering University of Durham, 15–25 July 2002.

Anonymous:2003:FMk

[Ano03s] Anonymous. Front matter. In Langtangen and Tveito [LT03], pages i–xix. CODEN LNCSA6. ISBN 3-540-01438-1 (print), 3-642-18237-2 (e-book). ISSN 1439-7358 (print), 2197-7100 (electronic). LCCN QA377 .A45 2003. URL <http://link.springer.com/content/pdf/bfm:978-3-642-18237-2/1>.

Anonymous:2003:FMI

[Ano03t] Anonymous. Front matter. In Bänsch [Bän03], pages i–viii. CODEN LNCSA6. ISBN 3-642-62406-5 (print), 3-642-19014-6 (e-book). ISSN 1439-7358 (print), 2197-7100 (electronic). LCCN ???? URL <http://link.springer.com/content/pdf/bfm:978-3-642-19014-8/1>.

Anonymous:2004:BMa

[Ano04a] Anonymous. Back matter. In *Large Eddy Simulation of Turbulent Incompressible Flows: Analytical and Numerical Results for a Class of LES Models* [Joh04f], pages 251–267. CODEN LNCSA6. ISBN 3-540-40643-3 (print), 3-642-18682-3 (e-book). ISSN 1439-7358 (print), 2197-7100 (electronic). LCCN TA357.5.T87 J64 2004. URL <http://link.springer.com/content/pdf/bbm:978-3-642-18682-0/1>.

Anonymous:2004:BMb

[Ano04b] Anonymous. Back matter. In *Numerical Solution of Elliptic Differential Equations by Reduction to the Interface* [KW04j], pages 279–299. CODEN LNCSA6. ISBN 3-540-20406-7 (print), 3-642-18777-3 (e-book). ISSN 1439-7358 (print), 2197-7100 (electronic). LCCN ???? URL <http://link.springer.com/content/pdf/bbm:978-3-642-18777-3/1>.

Anonymous:2004:BMc

[Ano04c] Anonymous. Back matter. In *Multiresolution Methods in Scattered Data Modelling* [Isk04f], pages 171–188. CODEN LNCSA6. ISBN 3-540-20479-2 (print), 3-642-18754-4 (e-book). ISSN 1439-7358 (print), 2197-7100 (electronic). LCCN

QA76.9.D35 I85 2004. URL <http://link.springer.com/content/pdf/bbm:978-3-642-18754-4/1>.

Anonymous:2004:BMd

- [Ano04d] Anonymous. Back matter. In Attinger and Koumoutsakos [AK04], pages 269–283. CODEN LNCSA6. ISBN 3-540-21180-2 (print), 3-642-18756-0 (e-book). ISSN 1439-7358 (print), 2197-7100 (electronic). LCCN TA342 .M85 2004. URL <http://link.springer.com/content/pdf/bbm:978-3-642-18756-8/1>. Proceedings of a Summer Program in Multi-Scale Modelling and Simulation held in Lugano, Switzerland, between August 4th and 30th, 2003.

Anonymous:2004:FMf

- [Ano04e] Anonymous. Front matter. In Niculescu and Gu [NG04], pages i–xiii. CODEN LNCSA6. ISBN 3-540-20890-9 (print), 3-642-18482-0 (e-book). ISSN 1439-7358 (print), 2197-7100 (electronic). LCCN TJ213 .A253 2004. URL <http://link.springer.com/content/pdf/bfm:978-3-642-18482-6/1>. Most of the chapters are based on the materials presented in the CNRS-NSF Workshop *Advances in Time-Delay Systems* held in Paris in January 22–24, 2003.

Anonymous:2004:FMa

- [Ano04f] Anonymous. Front matter. In Niculescu and Gu [NG04], page 1. CODEN LNCSA6. ISBN 3-540-20890-9 (print), 3-642-18482-0 (e-book). ISSN 1439-7358 (print), 2197-7100 (electronic). LCCN TJ213 .A253 2004. URL <http://link.springer.com/content/pdf/bfm:978-3-642-18482-6/1/1>. Most of the chapters are based on the materials presented in the CNRS-NSF Workshop *Advances in Time-Delay Systems* held in Paris in January 22–24, 2003.

Anonymous:2004:FMb

- [Ano04g] Anonymous. Front matter. In Niculescu and Gu [NG04], page 29. CODEN LNCSA6. ISBN 3-540-20890-9 (print), 3-642-18482-0 (e-book). ISSN 1439-7358 (print), 2197-7100 (electronic). LCCN TJ213 .A253 2004. URL <http://link.springer.com/content/pdf/bfm:978-3-642-18482-6/2/1>. Most of the chapters are based on the materials presented in the CNRS-NSF Workshop *Advances in Time-Delay Systems* held in Paris in January 22–24, 2003.

Anonymous:2004:FMc

- [Ano04h] Anonymous. Front matter. In Niculescu and Gu [NG04], page 87. CODEN LNCSA6. ISBN 3-540-20890-9 (print), 3-642-18482-0 (e-book). ISSN 1439-7358 (print), 2197-7100 (electronic). LCCN TJ213 .A253 2004. URL <http://link.springer.com/content/pdf/bfm:978-3-642-18482-6/3/1>. Most of the chapters are based on the materials presented in the CNRS-NSF Workshop *Advances in Time-Delay Systems* held in Paris in January 22–24, 2003.

Anonymous:2004:FMd

- [Ano04i] Anonymous. Front matter. In Niculescu and Gu [NG04], page 153. CODEN LNCSA6. ISBN 3-540-20890-9 (print), 3-642-18482-0 (e-book). ISSN 1439-7358 (print), 2197-7100 (electronic). LCCN TJ213 .A253 2004. URL <http://link.springer.com/content/pdf/bfm:978-3-642-18482-6/4/1>. Most of the chapters are based on the materials presented in the CNRS-NSF Workshop *Advances in Time-Delay Systems* held in Paris in January 22–24, 2003.

Anonymous:2004:FMe

- [Ano04j] Anonymous. Front matter. In Niculescu and Gu [NG04], page 223. CODEN LNCSA6. ISBN 3-540-20890-9 (print), 3-642-18482-0 (e-book). ISSN 1439-7358 (print), 2197-7100 (electronic). LCCN TJ213 .A253 2004. URL <http://link.springer.com/content/pdf/bfm:978-3-642-18482-6/5/1>. Most of the chapters are based on the materials presented in the CNRS-NSF Workshop *Advances in Time-Delay Systems* held in Paris in January 22–24, 2003.

Anonymous:2004:FMj

- [Ano04k] Anonymous. Front matter. In Attinger and Koumoutsakos [AK04], pages i–viii. CODEN LNCSA6. ISBN 3-540-21180-2 (print), 3-642-18756-0 (e-book). ISSN 1439-7358 (print), 2197-7100 (electronic). LCCN TA342 .M85 2004. URL <http://link.springer.com/content/pdf/bfm:978-3-642-18756-8/1>. Proceedings of a Summer Program in Multi-Scale Modelling and Simulation held in Lugano, Switzerland, between August 4th and 30th, 2003.

Anonymous:2004:FMg

- [Ano04l] Anonymous. Front matter. In Attinger and Koumoutsakos [AK04], page 1. CODEN LNCSA6. ISBN 3-

540-21180-2 (print), 3-642-18756-0 (e-book). ISSN 1439-7358 (print), 2197-7100 (electronic). LCCN TA342 .M85 2004. URL <http://link.springer.com/content/pdf/bfm:978-3-642-18756-8/1/1>. Proceedings of a Summer Program in Multi-Scale Modelling and Simulation held in Lugano, Switzerland, between August 4th and 30th, 2003.

Anonymous:2004:FMh

- [Ano04m] Anonymous. Front matter. In Attinger and Koumoutsakos [AK04], page 103. CODEN LNCSA6. ISBN 3-540-21180-2 (print), 3-642-18756-0 (e-book). ISSN 1439-7358 (print), 2197-7100 (electronic). LCCN TA342 .M85 2004. URL <http://link.springer.com/content/pdf/bfm:978-3-642-18756-8/2/1>. Proceedings of a Summer Program in Multi-Scale Modelling and Simulation held in Lugano, Switzerland, between August 4th and 30th, 2003.

Anonymous:2004:FMi

- [Ano04n] Anonymous. Front matter. In Attinger and Koumoutsakos [AK04], page 167. CODEN LNCSA6. ISBN 3-540-21180-2 (print), 3-642-18756-0 (e-book). ISSN 1439-7358 (print), 2197-7100 (electronic). LCCN TA342 .M85 2004. URL <http://link.springer.com/content/pdf/bfm:978-3-642-18756-8/3/1>. Proceedings of a Summer Program in Multi-Scale Modelling and Simulation held in Lugano, Switzerland, between August 4th and 30th, 2003.

Anonymous:2005:BMa

- [Ano05a] Anonymous. Back matter. In *Design of Adaptive Finite Element Software: The Finite Element Toolbox ALBERTA* [SS05a], pages 295–322. CODEN LNCSA6. ISBN 3-540-22842-X (print), 3-540-27156-2 (e-book). ISSN 1439-7358 (print), 2197-7100 (electronic). LCCN Q183.9 .S23 2005. URL <http://link.springer.com/content/pdf/bfm:978-3-540-27156-7/1>.

Anonymous:2005:BMb

- [Ano05b] Anonymous. Back matter. In Griebel and Schweitzer [GS05], pages 291–310. CODEN LNCSA6. ISBN 3-540-23026-2 (print), 3-540-27099-X (e-book). ISSN 1439-7358 (print), 2197-7100 (electronic). LCCN QA377 .M452 2005. URL <http://link.springer.com/content/pdf/bfm:978-3-540-27099-7/1>. Proceedings of the Second Interna-

tional Workshop on Meshfree Methods for Partial Differential Equations, Institut für Numerische Simulation Rheinische Friedrich–Wilhelms Universität Bonn, September 15–17, 2003.

Anonymous:2005:BMc

- [Ano05c] Anonymous. Back matter. In Engquist et al. [ERL05], pages 291–296. CODEN LNCSA6. ISBN 3-540-25335-1 (print), 3-540-26444-2 (e-book). ISSN 1439-7358 (print), 2197-7100 (electronic). LCCN TA347.F5 M85 2005. URL <http://link.springer.com/content/pdf/bbm:978-3-540-26444-6/1>. Proceedings of *Multiscale Methods in Science and Engineering*, Uppsala, Sweden, January 26–28, 2004.

Anonymous:2005:BMd

- [Ano05d] Anonymous. Back matter. In *Numerical Methods for General and Structured Eigenvalue Problems* [Kre05b], pages 233–264. CODEN LNCSA6. ISBN 3-540-24546-4 (print), 3-540-28502-4 (e-book). ISSN 1439-7358 (print), 2197-7100 (electronic). LCCN QA193 .K745 2005. URL <http://link.springer.com/content/pdf/bbm:978-3-540-28502-1/1>.

Anonymous:2005:BMe

- [Ano05e] Anonymous. Back matter. In Boriçi et al. [BFJ⁺05], pages 199–208. CODEN LNCSA6. ISBN 3-540-21257-4 (print), 3-540-28504-0 (e-book). ISSN 1439-7358 (print), 2197-7100 (electronic). LCCN QC793.3.Q35 I56 2003. URL <http://link.springer.com/content/pdf/bbm:978-3-540-28504-5/1>.

Anonymous:2005:BCT

- [Ano05f] Anonymous. Background in control theory structured eigenvalue problems. In *Numerical Methods for General and Structured Eigenvalue Problems* [Kre05b], pages 215–223. CODEN LNCSA6. ISBN 3-540-24546-4 (print), 3-540-28502-4 (e-book). ISSN 1439-7358 (print), 2197-7100 (electronic). LCCN QA193 .K745 2005. URL http://link.springer.com/content/pdf/10.1007/3-540-28502-4_5.

Anonymous:2005:CAA

- [Ano05g] Anonymous. Concepts and abstract algorithms. In *Design of Adaptive Finite Element Software: The Finite Element Toolbox ALBERTA* [SS05a], pages 9–53. CODEN LNCSA6.

ISBN 3-540-22842-X (print), 3-540-27156-2 (e-book). ISSN 1439-7358 (print), 2197-7100 (electronic). LCCN Q183.9 .S23 2005. URL http://link.springer.com/content/pdf/10.1007/3-540-27156-2_2.

Anonymous:2005:DSI

- [Ano05h] Anonymous. Data structures and implementation. In *Design of Adaptive Finite Element Software: The Finite Element Toolbox ALBERTA* [SS05a], pages 113–294. CODEN LNCSA6. ISBN 3-540-22842-X (print), 3-540-27156-2 (e-book). ISSN 1439-7358 (print), 2197-7100 (electronic). LCCN Q183.9 .S23 2005. URL http://link.springer.com/content/pdf/10.1007/3-540-27156-2_4.

Anonymous:2005:FMA

- [Ano05i] Anonymous. Front matter. In Kornhuber et al. [KHP⁺05], pages i–xviii. CODEN LNCSA6. ISBN 3-540-22523-4 (print), 3-540-26825-1 (e-book). ISSN 1439-7358 (print), 2197-7100 (electronic). LCCN QA402.2 .I55 2003. URL <http://link.springer.com/content/pdf/bfm:978-3-540-26825-3/1>. Papers from the 15th International Conference on Domain Decomposition, Freie Universität Berlin (FU), Berlin, Germany, July 21–25, 2003.

Anonymous:2005:FMB

- [Ano05j] Anonymous. Front matter. In Plewa et al. [PLW05], pages i–xiv. CODEN LNCSA6. ISBN 3-540-21147-0 (print), 3-540-27039-6 (e-book). ISSN 1439-7358 (print), 2197-7100 (electronic). LCCN QA377 .C46 2003. URL <http://link.springer.com/content/pdf/bfm:978-3-540-27039-3/1>.

Anonymous:2005:FMc

- [Ano05k] Anonymous. Front matter. In *Design of Adaptive Finite Element Software: The Finite Element Toolbox ALBERTA* [SS05a], pages i–xii. CODEN LNCSA6. ISBN 3-540-22842-X (print), 3-540-27156-2 (e-book). ISSN 1439-7358 (print), 2197-7100 (electronic). LCCN Q183.9 .S23 2005. URL <http://link.springer.com/content/pdf/bfm:978-3-540-27156-7/1>.

Anonymous:2005:FMd

- [Ano05l] Anonymous. Front matter. In Griebel and Schweitzer [GS05], pages i–viii. CODEN LNCSA6. ISBN 3-540-23026-2 (print),

3-540-27099-X (e-book). ISSN 1439-7358 (print), 2197-7100 (electronic). LCCN QA377 .M452 2005. URL <http://link.springer.com/content/pdf/bfm:978-3-540-27099-7/1>. Proceedings of the Second International Workshop on Meshfree Methods for Partial Differential Equations, Institut für Numerische Simulation Rheinische Friedrich-Wilhelms Universität Bonn, September 15–17, 2003.

Anonymous:2005:FMe

- [Ano05m] Anonymous. Front matter. In Engquist et al. [ERL05], pages i–xi. CODEN LNCSA6. ISBN 3-540-25335-1 (print), 3-540-26444-2 (e-book). ISSN 1439-7358 (print), 2197-7100 (electronic). LCCN TA347.F5 M85 2005. URL <http://link.springer.com/content/pdf/bfm:978-3-540-26444-6/1>. Proceedings of *Multiscale Methods in Science and Engineering*, Uppsala, Sweden, January 26–28, 2004.

Anonymous:2005:FMf

- [Ano05n] Anonymous. Front matter. In Benner et al. [BMS05c], pages i–xi. CODEN LNCSA6. ISBN 3-540-24545-6 (print), 3-540-27909-1 (e-book). ISSN 1439-7358 (print), 2197-7100 (electronic). LCCN TA347.C68 D56 2005. URL <http://link.springer.com/content/pdf/bfm:978-3-540-27909-9/1>.

Anonymous:2005:FMg

- [Ano05o] Anonymous. Front matter. In Boriçi et al. [BFJ⁺05], pages i–xiii. CODEN LNCSA6. ISBN 3-540-21257-4 (print), 3-540-28504-0 (e-book). ISSN 1439-7358 (print), 2197-7100 (electronic). LCCN QC793.3.Q35 I56 2003. URL <http://link.springer.com/content/pdf/bfm:978-3-540-28504-5/1>.

Anonymous:2005:IMP

- [Ano05p] Anonymous. Implementation of model problems. In *Design of Adaptive Finite Element Software: The Finite Element Toolbox ALBERTA* [SS05a], pages 55–111. CODEN LNCSA6. ISBN 3-540-22842-X (print), 3-540-27156-2 (e-book). ISSN 1439-7358 (print), 2197-7100 (electronic). LCCN Q183.9 .S23 2005. URL http://link.springer.com/content/pdf/10.1007/3-540-27156-2_3.

Anonymous:2005:I

- [Ano05q] Anonymous. Introduction. In *Design of Adaptive Finite Element Software: The Finite Element Toolbox AL-*

BERTA [SS05a], pages 1–8. CODEN LNCSA6. ISBN 3-540-22842-X (print), 3-540-27156-2 (e-book). ISSN 1439-7358 (print), 2197-7100 (electronic). LCCN Q183.9 .S23 2005. URL http://link.springer.com/content/pdf/10.1007/3-540-27156-2_1.

Anonymous:2005:KSA

- [Ano05r] Anonymous. The Krylov–Schur algorithm. In *Numerical Methods for General and Structured Eigenvalue Problems* [Kre05b], pages 113–130. CODEN LNCSA6. ISBN 3-540-24546-4 (print), 3-540-28502-4 (e-book). ISSN 1439-7358 (print), 2197-7100 (electronic). LCCN QA193 .K745 2005. URL http://link.springer.com/content/pdf/10.1007/3-540-28502-4_3.

Anonymous:2005:QAa

- [Ano05s] Anonymous. The QR algorithm. In *Numerical Methods for General and Structured Eigenvalue Problems* [Kre05b], pages 1–66. CODEN LNCSA6. ISBN 3-540-24546-4 (print), 3-540-28502-4 (e-book). ISSN 1439-7358 (print), 2197-7100 (electronic). LCCN QA193 .K745 2005. URL http://link.springer.com/content/pdf/10.1007/3-540-28502-4_1.

Anonymous:2005:QAb

- [Ano05t] Anonymous. The QZ algorithm. In *Numerical Methods for General and Structured Eigenvalue Problems* [Kre05b], pages 67–111. CODEN LNCSA6. ISBN 3-540-24546-4 (print), 3-540-28502-4 (e-book). ISSN 1439-7358 (print), 2197-7100 (electronic). LCCN QA193 .K745 2005. URL http://link.springer.com/content/pdf/10.1007/3-540-28502-4_2.

Anonymous:2005:S

- [Ano05u] Anonymous. Software. In *Numerical Methods for General and Structured Eigenvalue Problems* [Kre05b], pages 225–231. CODEN LNCSA6. ISBN 3-540-24546-4 (print), 3-540-28502-4 (e-book). ISSN 1439-7358 (print), 2197-7100 (electronic). LCCN QA193 .K745 2005. URL http://link.springer.com/content/pdf/10.1007/3-540-28502-4_6.

Anonymous:2005:SEP

- [Ano05v] Anonymous. Structured eigenvalue problems. In *Numerical Methods for General and Structured Eigenvalue Problems* [Kre05b], pages 131–214. CODEN LNCSA6. ISBN

3-540-24546-4 (print), 3-540-28502-4 (e-book). ISSN 1439-7358 (print), 2197-7100 (electronic). LCCN QA193 .K745 2005. URL http://link.springer.com/content/pdf/10.1007/3-540-28502-4_4.

Anonymous:2006:BMa

- [Ano06a] Anonymous. Back matter. In Leimkuhler et al. [LCE⁺06], pages 363–367. CODEN LNCSA6. ISBN 3-540-25542-7 (print), 3-540-31618-3 (e-book). ISSN 1439-7358 (print), 2197-7100 (electronic). LCCN QP517.M3 N49 2006. URL <http://link.springer.com/content/pdf/bbm:978-3-540-31618-3/1>. Papers from the fourth edition of *Algorithms for Macromolecular Modelling*, Leicester, UK August 2004.

Anonymous:2006:BMb

- [Ano06b] Anonymous. Back matter. In Bruaset and Tveito [BT06], pages 467–487. CODEN LNCSA6. ISBN 3-540-29076-1 (print), 3-540-31619-1 (e-book). ISSN 1439-7358 (print), 2197-7100 (electronic). LCCN QA377 .N87 2006. URL <http://link.springer.com/content/pdf/bbm:978-3-540-31619-0/1>.

Anonymous:2006:BMc

- [Ano06c] Anonymous. Back matter. In Hoffmann and Meyer [HM06], pages 361–368. CODEN LNCSA6. ISBN 3-540-33539-0 (print), 3-540-33541-2 (e-book). ISSN 1439-7358 (print), 2197-7100 (electronic). LCCN QA76.58 .P358 2006. URL <http://link.springer.com/content/pdf/bbm:978-3-540-33541-2/1>.

Anonymous:2006:BMd

- [Ano06d] Anonymous. Back matter. In Bungartz and Schäfer [BS06], pages 387–393. CODEN LNCSA6. ISBN 3-540-34595-7 (print), 3-540-34596-5 (e-book). ISSN 1439-7358 (print), 2197-7100 (electronic). LCCN TA357.5.F58 F586 200. URL <http://link.springer.com/content/pdf/bbm:978-3-540-34596-1/1>. Proceedings of a workshop on fluid-structure interactions held in Hohenwart, Germany, in October 2005.

Anonymous:2006:BMe

- [Ano06e] Anonymous. Back matter. In *Adaptive Atmospheric Modelling: Key Techniques in Grid Generation, Data Structures,*

and Numerical Operations with Applications [Beh06a], pages 173–213. CODEN LNCSA6. ISBN 3-540-33382-7 (print), 3-540-33383-5 (e-book). ISSN 1439-7358 (print), 2197-7100 (electronic). LCCN ??? URL <http://link.springer.com/content/pdf/bm:978-3-540-33383-8/1>.

Anonymous:2006:FMa

[Ano06f] Anonymous. Front matter. In Graziani [Gra06], pages i–xvii. CODEN LNCSA6. ISBN 3-540-28122-3 (print), 3-540-28125-8 (e-book). ISSN 1439-7358 (print), 2197-7100 (electronic). LCCN MLCM 2006/40189 (Q); QC793.3.T7 C66 2006. URL <http://link.springer.com/content/pdf/bfm:978-3-540-28125-2/1>.

Anonymous:2006:F Mb

[Ano06g] Anonymous. Front matter. In Graziani [Gra06], pages i–xvii. CODEN LNCSA6. ISBN 3-540-28122-3 (print), 3-540-28125-8 (e-book). ISSN 1439-7358 (print), 2197-7100 (electronic). LCCN MLCM 2006/40189 (Q); QC793.3.T7 C66 2006. URL <http://link.springer.com/content/pdf/bfm:978-3-540-28125-2/1/1>.

Anonymous:2006:F Mc

[Ano06h] Anonymous. Front matter. In Graziani [Gra06], pages i–xvii. CODEN LNCSA6. ISBN 3-540-28122-3 (print), 3-540-28125-8 (e-book). ISSN 1439-7358 (print), 2197-7100 (electronic). LCCN MLCM 2006/40189 (Q); QC793.3.T7 C66 2006. URL <http://link.springer.com/content/pdf/bfm:978-3-540-28125-2/2/1>.

Anonymous:2006:F Md

[Ano06i] Anonymous. Front matter. In Graziani [Gra06], pages i–xvii. CODEN LNCSA6. ISBN 3-540-28122-3 (print), 3-540-28125-8 (e-book). ISSN 1439-7358 (print), 2197-7100 (electronic). LCCN MLCM 2006/40189 (Q); QC793.3.T7 C66 2006. URL <http://link.springer.com/content/pdf/bfm:978-3-540-28125-2/3/1>.

Anonymous:2006:F Me

[Ano06j] Anonymous. Front matter. In Graziani [Gra06], pages i–xvii. CODEN LNCSA6. ISBN 3-540-28122-3 (print), 3-540-28125-8 (e-book). ISSN 1439-7358 (print), 2197-7100 (electronic). LCCN MLCM 2006/40189 (Q); QC793.3.T7 C66

2006. URL <http://link.springer.com/content/pdf/bfm:978-3-540-28125-2/4/1>.

Anonymous:2006:FMI

- [Ano06k] Anonymous. Front matter. In Leimkuhler et al. [LCE⁺06], pages i–xvi. CODEN LNCSA6. ISBN 3-540-25542-7 (print), 3-540-31618-3 (e-book). ISSN 1439-7358 (print), 2197-7100 (electronic). LCCN QP517.M3 N49 2006. URL <http://link.springer.com/content/pdf/bfm:978-3-540-31618-3/1>. Papers from the fourth edition of *Algorithms for Macromolecular Modelling*, Leicester, UK August 2004.

Anonymous:2006:FMf

- [Ano06l] Anonymous. Front matter. In Leimkuhler et al. [LCE⁺06], page 1. CODEN LNCSA6. ISBN 3-540-25542-7 (print), 3-540-31618-3 (e-book). ISSN 1439-7358 (print), 2197-7100 (electronic). LCCN QP517.M3 N49 2006. URL <http://link.springer.com/content/pdf/bfm:978-3-540-31618-3/1/1>. Papers from the fourth edition of *Algorithms for Macromolecular Modelling*, Leicester, UK August 2004.

Anonymous:2006:FMg

- [Ano06m] Anonymous. Front matter. In Leimkuhler et al. [LCE⁺06], page 71. CODEN LNCSA6. ISBN 3-540-25542-7 (print), 3-540-31618-3 (e-book). ISSN 1439-7358 (print), 2197-7100 (electronic). LCCN QP517.M3 N49 2006. URL <http://link.springer.com/content/pdf/bfm:978-3-540-31618-3/2/1>. Papers from the fourth edition of *Algorithms for Macromolecular Modelling*, Leicester, UK August 2004.

Anonymous:2006:FMh

- [Ano06n] Anonymous. Front matter. In Leimkuhler et al. [LCE⁺06], page 101. CODEN LNCSA6. ISBN 3-540-25542-7 (print), 3-540-31618-3 (e-book). ISSN 1439-7358 (print), 2197-7100 (electronic). LCCN QP517.M3 N49 2006. URL <http://link.springer.com/content/pdf/bfm:978-3-540-31618-3/3/1>. Papers from the fourth edition of *Algorithms for Macromolecular Modelling*, Leicester, UK August 2004.

Anonymous:2006:FMi

- [Ano06o] Anonymous. Front matter. In Leimkuhler et al. [LCE⁺06], page 183. CODEN LNCSA6. ISBN 3-540-25542-7 (print), 3-540-31618-3 (e-book). ISSN 1439-7358 (print), 2197-7100

(electronic). LCCN QP517.M3 N49 2006. URL <http://link.springer.com/content/pdf/bfm:978-3-540-31618-3/4/1>. Papers from the fourth edition of *Algorithms for Macromolecular Modelling*, Leicester, UK August 2004.

Anonymous:2006:FMj

- [Ano06p] Anonymous. Front matter. In Leimkuhler et al. [LCE⁺06], page 261. CODEN LNCSA6. ISBN 3-540-25542-7 (print), 3-540-31618-3 (e-book). ISSN 1439-7358 (print), 2197-7100 (electronic). LCCN QP517.M3 N49 2006. URL <http://link.springer.com/content/pdf/bfm:978-3-540-31618-3/5/1>. Papers from the fourth edition of *Algorithms for Macromolecular Modelling*, Leicester, UK August 2004.

Anonymous:2006:FMk

- [Ano06q] Anonymous. Front matter. In Leimkuhler et al. [LCE⁺06], page 313. CODEN LNCSA6. ISBN 3-540-25542-7 (print), 3-540-31618-3 (e-book). ISSN 1439-7358 (print), 2197-7100 (electronic). LCCN QP517.M3 N49 2006. URL <http://link.springer.com/content/pdf/bfm:978-3-540-31618-3/6/1>. Papers from the fourth edition of *Algorithms for Macromolecular Modelling*, Leicester, UK August 2004.

Anonymous:2006:FmM

- [Ano06r] Anonymous. Front matter. In Bücker et al. [BCH⁺06], pages i–xvii. CODEN LNCSA6. ISBN 3-540-28403-6 (print), 3-540-28438-9 (e-book). ISSN 1439-7358 (print), 2197-7100 (electronic). LCCN QA304 .I58 2006. URL <http://link.springer.com/content/pdf/bfm:978-3-540-28438-3/1>. Proceedings of the Fourth International Conference on Automatic Differentiation, July 20–23, Chicago, Illinois.

Anonymous:2006:FMr

- [Ano06s] Anonymous. Front matter. In Bruaset and Tveito [BT06], pages i–xii. CODEN LNCSA6. ISBN 3-540-29076-1 (print), 3-540-31619-1 (e-book). ISSN 1439-7358 (print), 2197-7100 (electronic). LCCN QA377 .N87 2006. URL <http://link.springer.com/content/pdf/bfm:978-3-540-31619-0/1>.

Anonymous:2006:FmN

- [Ano06t] Anonymous. Front matter. In Bruaset and Tveito [BT06], page 1. CODEN LNCSA6. ISBN 3-540-29076-1 (print), 3-540-31619-1 (e-book). ISSN 1439-7358 (print), 2197-7100

(electronic). LCCN QA377 .N87 2006. URL <http://link.springer.com/content/pdf/bfm:978-3-540-31619-0/1/1>.

Anonymous:2006:FMo

- [Ano06u] Anonymous. Front matter. In Bruaset and Tveito [BT06], page 133. CODEN LNCSA6. ISBN 3-540-29076-1 (print), 3-540-31619-1 (e-book). ISSN 1439-7358 (print), 2197-7100 (electronic). LCCN QA377 .N87 2006. URL <http://link.springer.com/content/pdf/bfm:978-3-540-31619-0/2/1>.

Anonymous:2006:FMp

- [Ano06v] Anonymous. Front matter. In Bruaset and Tveito [BT06], page 265. CODEN LNCSA6. ISBN 3-540-29076-1 (print), 3-540-31619-1 (e-book). ISSN 1439-7358 (print), 2197-7100 (electronic). LCCN QA377 .N87 2006. URL <http://link.springer.com/content/pdf/bfm:978-3-540-31619-0/3/1>.

Anonymous:2006:Fmq

- [Ano06w] Anonymous. Front matter. In Bruaset and Tveito [BT06], page 383. CODEN LNCSA6. ISBN 3-540-29076-1 (print), 3-540-31619-1 (e-book). ISSN 1439-7358 (print), 2197-7100 (electronic). LCCN QA377 .N87 2006. URL <http://link.springer.com/content/pdf/bfm:978-3-540-31619-0/4/1>.

Anonymous:2006:FMs

- [Ano06x] Anonymous. Front matter. In Hoffmann and Meyer [HM06], pages i–x. CODEN LNCSA6. ISBN 3-540-33539-0 (print), 3-540-33541-2 (e-book). ISSN 1439-7358 (print), 2197-7100 (electronic). LCCN QA76.58 .P358 2006. URL <http://link.springer.com/content/pdf/bfm:978-3-540-33541-2/1>.

Anonymous:2006:FMt

- [Ano06y] Anonymous. Front matter. In Hoffmann and Meyer [HM06], pages i–x. CODEN LNCSA6. ISBN 3-540-33539-0 (print), 3-540-33541-2 (e-book). ISSN 1439-7358 (print), 2197-7100 (electronic). LCCN QA76.58 .P358 2006. URL <http://link.springer.com/content/pdf/bfm:978-3-540-33541-2/1/1>.

Anonymous:2006:FMu

- [Ano06z] Anonymous. Front matter. In Hoffmann and Meyer [HM06], pages i–x. CODEN LNCSA6. ISBN 3-540-33539-0 (print), 3-540-33541-2 (e-book). ISSN 1439-7358 (print), 2197-7100

(electronic). LCCN QA76.58 .P358 2006. URL <http://link.springer.com/content/pdf/bfm:978-3-540-33541-2/2/1>.

Anonymous:2006:FMv

- [Ano06-27] Anonymous. Front matter. In Hoffmann and Meyer [HM06], pages i–x. CODEN LNCSA6. ISBN 3-540-33539-0 (print), 3-540-33541-2 (e-book). ISSN 1439-7358 (print), 2197-7100 (electronic). LCCN QA76.58 .P358 2006. URL <http://link.springer.com/content/pdf/bfm:978-3-540-33541-2/3/1>.

Anonymous:2006:FMw

- [Ano06-28] Anonymous. Front matter. In Bungartz and Schäfer [BS06], pages i–viii. CODEN LNCSA6. ISBN 3-540-34595-7 (print), 3-540-34596-5 (e-book). ISSN 1439-7358 (print), 2197-7100 (electronic). LCCN TA357.5.F58 F586 200. URL <http://link.springer.com/content/pdf/bfm:978-3-540-34596-1/1>. Proceedings of a workshop on fluid-structure interactions held in Hohenwart, Germany, in October 2005.

Anonymous:2006:PD

- [Ano06-29] Anonymous. Panel discussion. In Leimkuhler et al. [LCE⁺06], pages 353–362. CODEN LNCSA6. ISBN 3-540-25542-7 (print), 3-540-31618-3 (e-book). ISSN 1439-7358 (print), 2197-7100 (electronic). LCCN QP517.M3 N49 2006. URL http://link.springer.com/content/pdf/10.1007/3-540-31618-3_19. Papers from the fourth edition of *Algorithms for Macromolecular Modelling*, Leicester, UK August 2004.

Anonymous:2007:BM

- [Ano07a] Anonymous. Back matter. In Griebel and Schweitzer [GS07b], pages 299–312. CODEN LNCSA6. ISBN 3-540-46214-7 (print), 3-540-46222-8 (e-book). ISSN 1439-7358 (print), 2197-7100 (electronic). LCCN QA377 .M45 2005. URL <http://link.springer.com/content/pdf/bfm:978-3-540-46222-4/1>. Third international workshop on Meshfree Methods for Partial Differential Equations held from September 12 to September 15, 2005 in Bonn, Germany.

Anonymous:2007:FMa

- [Ano07b] Anonymous. Front matter. In Widlund and Keyes [WK07], pages i–xxi. CODEN LNCSA6. ISBN 3-540-34468-3 (print),

3-540-34469-1 (e-book). ISSN 1439-7358 (print), 2197-7100 (electronic). LCCN QA402.2 .I55 2005. URL <http://link.springer.com/content/pdf/bfm:978-3-540-34469-8/1>. Proceedings of the *Sixteenth International Conference on Domain Decomposition Methods*, New York City, January 11–15, 2005.

Anonymous:2007:FMb

- [Ano07c] Anonymous. Front matter. In Widlund and Keyes [WK07], pages i–xxi. CODEN LNCSA6. ISBN 3-540-34468-3 (print), 3-540-34469-1 (e-book). ISSN 1439-7358 (print), 2197-7100 (electronic). LCCN QA402.2 .I55 2005. URL <http://link.springer.com/content/pdf/bfm:978-3-540-34469-8/1/1>. Proceedings of the *Sixteenth International Conference on Domain Decomposition Methods*, New York City, January 11–15, 2005.

Anonymous:2007:FMc

- [Ano07d] Anonymous. Front matter. In Widlund and Keyes [WK07], pages i–xxi. CODEN LNCSA6. ISBN 3-540-34468-3 (print), 3-540-34469-1 (e-book). ISSN 1439-7358 (print), 2197-7100 (electronic). LCCN QA402.2 .I55 2005. URL <http://link.springer.com/content/pdf/bfm:978-3-540-34469-8/2/1>. Proceedings of the *Sixteenth International Conference on Domain Decomposition Methods*, New York City, January 11–15, 2005.

Anonymous:2007:FMd

- [Ano07e] Anonymous. Front matter. In Kassinos et al. [KLIM07], pages i–xi. CODEN LNCSA6. ISBN 3-540-34233-8 (print), 3-540-34234-6 (e-book). ISSN 1439-7358 (print), 2197-7100 (electronic). LCCN TA357.5.T87 C66 2007. URL <http://link.springer.com/content/pdf/bfm:978-3-540-34234-2/1>. Proceedings of the symposium on *Complex Effects in Large Eddy Simulation* held in Lemesos (Limassol), Cyprus, September 21–24, 2005.

Anonymous:2007:FMe

- [Ano07f] Anonymous. Front matter. In Griebel and Schweitzer [GS07b], pages i–viii. CODEN LNCSA6. ISBN 3-540-46214-7 (print), 3-540-46222-8 (e-book). ISSN 1439-7358 (print), 2197-7100 (electronic). LCCN QA377 .M45 2005. URL <http://link.springer.com/content/pdf/bfm:978-3-540-46222-4/1>. Third international workshop on Meshfree Methods

for Partial Differential Equations held from September 12 to September 15, 2005 in Bonn, Germany.

Anonymous:2008:AFE

- [Ano08a] Anonymous. Application to finite element discretizations. In *Hierarchical Matrices: a Means to Efficiently Solve Elliptic Boundary Value Problems* [Beb08b], pages 193–267. CODEN LNCSA6. ISBN 3-540-77146-8 (print), 3-540-77147-6 (e-book). ISSN 1439-7358 (print), 2197-7100 (electronic). LCCN QA188 .B42 2008. URL http://link.springer.com/content/pdf/10.1007/978-3-540-77147-0_5. From a habilitation thesis that was accepted in January 2007 by the Faculty of Mathematics and Computer Science of the University of Leipzig.

Anonymous:2008:ADI

- [Ano08b] Anonymous. Approximation of discrete integral operators. In *Hierarchical Matrices: a Means to Efficiently Solve Elliptic Boundary Value Problems* [Beb08b], pages 99–192. CODEN LNCSA6. ISBN 3-540-77146-8 (print), 3-540-77147-6 (e-book). ISSN 1439-7358 (print), 2197-7100 (electronic). LCCN QA188 .B42 2008. URL http://link.springer.com/content/pdf/10.1007/978-3-540-77147-0_4. From a habilitation thesis that was accepted in January 2007 by the Faculty of Mathematics and Computer Science of the University of Leipzig.

Anonymous:2008:BMa

- [Ano08c] Anonymous. Back matter. In Gorban et al. [GKWZ08], pages 325–334. CODEN LNCSA6. ISBN 3-540-73749-9 (print), 3-540-73750-2 (e-book). ISSN 1439-7358 (print), 2197-7100 (electronic). LCCN QA278.5 .P75 2008. URL <http://link.springer.com/content/pdf/bbm:978-3-540-73750-6/1>.

Anonymous:2008:BMb

- [Ano08d] Anonymous. Back matter. In Ammari [Amm08], pages 227–234. CODEN LNCSA6. ISBN 3-540-73777-4 (print), 3-540-73778-2 (e-book). ISSN 1439-7358 (print), 2197-7100 (electronic). LCCN QC760.4.M37 M63 2008. URL <http://link.springer.com/content/pdf/bbm:978-3-540-73778-0/1>.

Anonymous:2008:BMc

- [Ano08e] Anonymous. Back matter. In *Domain Decomposition Methods for the Numerical Solution of Partial Differential Equations* [Mat08a], pages 711–764. CODEN LNCSA6. ISBN 3-540-77205-7 (print), 3-540-77209-X (e-book). ISSN 1439-7358 (print), 2197-7100 (electronic). LCCN QA402.2 .M38 2008. URL <http://link.springer.com/content/pdf/bbm:978-3-540-77209-5/1>.

Anonymous:2008:BMd

- [Ano08f] Anonymous. Back matter. In Graziani [Gra08b], pages 301–326. CODEN LNCSA6. ISBN 3-540-77361-4 (print), 3-540-77362-2 (e-book). ISSN 1439-7358 (print), 2197-7100 (electronic). LCCN ???? URL <http://link.springer.com/content/pdf/bbm:978-3-540-77362-7/1>. Proceedings of the 2006 Computational Methods in Transport (CMTW) conference.

Anonymous:2008:BMe

- [Ano08g] Anonymous. Back matter. In *Hierarchical Matrices: a Means to Efficiently Solve Elliptic Boundary Value Problems* [Beb08b], pages 269–296. CODEN LNCSA6. ISBN 3-540-77146-8 (print), 3-540-77147-6 (e-book). ISSN 1439-7358 (print), 2197-7100 (electronic). LCCN QA188 .B42 2008. URL <http://link.springer.com/content/pdf/bbm:978-3-540-77147-0/1>. From a habilitation thesis that was accepted in January 2007 by the Faculty of Mathematics and Computer Science of the University of Leipzig.

Anonymous:2008:BMf

- [Ano08h] Anonymous. Back matter. In Griebel and Schweitzer [GS08d], pages 359–403. CODEN LNCSA6. ISBN 3-540-79993-1 (print), 3-540-79994-X (e-book). ISSN 1439-7358 (print), 2197-7100 (electronic). LCCN ???? URL <http://link.springer.com/content/pdf/bbm:978-3-540-79994-8/1>. Fourth International Workshop on Meshfree Methods for Partial Differential Equations held from September 17 to September 20, 2007 in Bonn, Germany.

Anonymous:2008:CIP

- [Ano08i] Anonymous. Computational issues and parallelization. In *Domain Decomposition Methods for the Numerical Solution of Partial Differential Equations* [Mat08a], pages 263–294.

CODEN LNCSA6. ISBN 3-540-77205-7 (print), 3-540-77209-X (e-book). ISSN 1439-7358 (print), 2197-7100 (electronic). LCCN QA402.2 .M38 2008. URL http://link.springer.com/content/pdf/10.1007/978-3-540-77209-5_5.

Anonymous:2008:DF

[Ano08j] Anonymous. Decomposition frameworks. In *Domain Decomposition Methods for the Numerical Solution of Partial Differential Equations* [Mat08a], pages 1–46. CODEN LNCSA6. ISBN 3-540-77205-7 (print), 3-540-77209-X (e-book). ISSN 1439-7358 (print), 2197-7100 (electronic). LCCN QA402.2 .M38 2008. URL http://link.springer.com/content/pdf/10.1007/978-3-540-77209-5_1.

Anonymous:2008:EP

[Ano08k] Anonymous. Eigenvalue problems. In *Domain Decomposition Methods for the Numerical Solution of Partial Differential Equations* [Mat08a], pages 679–687. CODEN LNCSA6. ISBN 3-540-77205-7 (print), 3-540-77209-X (e-book). ISSN 1439-7358 (print), 2197-7100 (electronic). LCCN QA402.2 .M38 2008. URL http://link.springer.com/content/pdf/10.1007/978-3-540-77209-5_16.

Anonymous:2008:FDD

[Ano08l] Anonymous. Fictitious domain and domain imbedding methods. In *Domain Decomposition Methods for the Numerical Solution of Partial Differential Equations* [Mat08a], pages 607–619. CODEN LNCSA6. ISBN 3-540-77205-7 (print), 3-540-77209-X (e-book). ISSN 1439-7358 (print), 2197-7100 (electronic). LCCN QA402.2 .M38 2008. URL http://link.springer.com/content/pdf/10.1007/978-3-540-77209-5_13.

Anonymous:2008:FMa

[Ano08m] Anonymous. Front matter. In Gorban et al. [GKWZ08], pages i–xxiii. CODEN LNCSA6. ISBN 3-540-73749-9 (print), 3-540-73750-2 (e-book). ISSN 1439-7358 (print), 2197-7100 (electronic). LCCN QA278.5 .P75 2008. URL <http://link.springer.com/content/pdf/bfm:978-3-540-73750-6/1>.

Anonymous:2008:F Mb

[Ano08n] Anonymous. Front matter. In Ammari [Amm08], pages i–vi. CODEN LNCSA6. ISBN 3-540-73777-4 (print), 3-540-

73778-2 (e-book). ISSN 1439-7358 (print), 2197-7100 (electronic). LCCN QC760.4.M37 M63 2008. URL <http://link.springer.com/content/pdf/bfm:978-3-540-73778-0/1>.

Anonymous:2008:FMc

- [Ano08o] Anonymous. Front matter. In Langer et al. [LDK⁺08], pages i–xix. CODEN LNCSA6. ISBN 3-540-75198-X (print), 3-540-75199-8 (e-book). ISSN 1439-7358 (print), 2197-7100 (electronic). LCCN QA402.2 .I55 2006. URL <http://link.springer.com/content/pdf/bfm:978-3-540-75199-1/1>. 17th International Conference on Domain Decomposition Methods held at St. Wolfgang/Strobl, Austria, July 3–7, 2006.

Anonymous:2008:FMd

- [Ano08p] Anonymous. Front matter. In Graziani [Gra08b], pages i–x. CODEN LNCSA6. ISBN 3-540-77361-4 (print), 3-540-77362-2 (e-book). ISSN 1439-7358 (print), 2197-7100 (electronic). LCCN ???? URL <http://link.springer.com/content/pdf/bfm:978-3-540-77362-7/1>. Proceedings of the 2006 Computational Methods in Transport (CMTW) conference.

Anonymous:2008:FMe

- [Ano08q] Anonymous. Front matter. In Bischof et al. [BBH⁺08], pages i–xviii. CODEN LNCSA6. ISBN 3-540-68935-4 (print), 3-540-68942-7 (e-book). ISSN 1439-7358 (print), 2197-7100 (electronic). LCCN QA304 .I58 2008. URL <http://link.springer.com/content/pdf/bfm:978-3-540-68942-3/1>.

Anonymous:2008:FMf

- [Ano08r] Anonymous. Front matter. In Griebel and Schweitzer [GS08d], pages i–viii. CODEN LNCSA6. ISBN 3-540-79993-1 (print), 3-540-79994-X (e-book). ISSN 1439-7358 (print), 2197-7100 (electronic). LCCN ???? URL <http://link.springer.com/content/pdf/bfm:978-3-540-79994-8/1>. Fourth International Workshop on Meshfree Methods for Partial Differential Equations held from September 17 to September 20, 2007 in Bonn, Germany.

Anonymous:2008:HSP

- [Ano08s] Anonymous. Helmholtz scattering problem. In *Domain Decomposition Methods for the Numerical Solution of Partial Differential Equations* [Mat08a], pages 699–709. CODEN LNCSA6. ISBN 3-540-77205-7 (print), 3-540-77209-

X (e-book). ISSN 1439-7358 (print), 2197-7100 (electronic). LCCN QA402.2 .M38 2008. URL http://link.springer.com/content/pdf/10.1007/978-3-540-77209-5_18.

Anonymous:2008:HDD

- [Ano08t] Anonymous. Heterogeneous domain decomposition methods. In *Domain Decomposition Methods for the Numerical Solution of Partial Differential Equations* [Mat08a], pages 575–606. CODEN LNCSA6. ISBN 3-540-77205-7 (print), 3-540-77209-X (e-book). ISSN 1439-7358 (print), 2197-7100 (electronic). LCCN QA402.2 .M38 2008. URL http://link.springer.com/content/pdf/10.1007/978-3-540-77209-5_12.

Anonymous:2008:HM

- [Ano08u] Anonymous. Hierarchical matrices. In *Hierarchical Matrices: a Means to Efficiently Solve Elliptic Boundary Value Problems* [Beb08b], pages 49–98. CODEN LNCSA6. ISBN 3-540-77146-8 (print), 3-540-77147-6 (e-book). ISSN 1439-7358 (print), 2197-7100 (electronic). LCCN QA188 .B42 2008. URL http://link.springer.com/content/pdf/10.1007/978-3-540-77147-0_3. From a habilitation thesis that was accepted in January 2007 by the Faculty of Mathematics and Computer Science of the University of Leipzig.

Anonymous:2008:I

- [Ano08v] Anonymous. Introduction. In *Hierarchical Matrices: a Means to Efficiently Solve Elliptic Boundary Value Problems* [Beb08b], pages 1–7. CODEN LNCSA6. ISBN 3-540-77146-8 (print), 3-540-77147-6 (e-book). ISSN 1439-7358 (print), 2197-7100 (electronic). LCCN QA188 .B42 2008. URL http://link.springer.com/content/pdf/10.1007/978-3-540-77147-0_1. From a habilitation thesis that was accepted in January 2007 by the Faculty of Mathematics and Computer Science of the University of Leipzig.

Anonymous:2008:LMB

- [Ano08w] Anonymous. Lagrange multiplier based substructuring: FETI method. In *Domain Decomposition Methods for the Numerical Solution of Partial Differential Equations* [Mat08a], pages 231–262. CODEN LNCSA6. ISBN 3-540-77205-7 (print), 3-540-77209-X (e-book). ISSN 1439-7358 (print), 2197-7100 (electronic). LCCN QA402.2 .M38

2008. URL http://link.springer.com/content/pdf/10.1007/978-3-540-77209-5_4.

Anonymous:2008:LSC

- [Ano08x] Anonymous. Least squares-control theory: Iterative algorithms. In *Domain Decomposition Methods for the Numerical Solution of Partial Differential Equations* [Mat08a], pages 295–312. CODEN LNCSA6. ISBN 3-540-77205-7 (print), 3-540-77209-X (e-book). ISSN 1439-7358 (print), 2197-7100 (electronic). LCCN QA402.2 .M38 2008. URL http://link.springer.com/content/pdf/10.1007/978-3-540-77209-5_6.

Anonymous:2008:LRM

- [Ano08y] Anonymous. Low-rank matrices and matrix partitioning. In *Hierarchical Matrices: a Means to Efficiently Solve Elliptic Boundary Value Problems* [Beb08b], pages 9–47. CODEN LNCSA6. ISBN 3-540-77146-8 (print), 3-540-77147-6 (e-book). ISSN 1439-7358 (print), 2197-7100 (electronic). LCCN QA188 .B42 2008. URL http://link.springer.com/content/pdf/10.1007/978-3-540-77147-0_2. From a habilitation thesis that was accepted in January 2007 by the Faculty of Mathematics and Computer Science of the University of Leipzig.

Anonymous:2008:MNT

- [Ano08z] Anonymous. Maximum norm theory. In *Domain Decomposition Methods for the Numerical Solution of Partial Differential Equations* [Mat08a], pages 647–678. CODEN LNCSA6. ISBN 3-540-77205-7 (print), 3-540-77209-X (e-book). ISSN 1439-7358 (print), 2197-7100 (electronic). LCCN QA402.2 .M38 2008. URL http://link.springer.com/content/pdf/10.1007/978-3-540-77209-5_15.

Anonymous:2008:MLG

- [Ano08-27] Anonymous. Multilevel and local grid refinement methods. In *Domain Decomposition Methods for the Numerical Solution of Partial Differential Equations* [Mat08a], pages 313–331. CODEN LNCSA6. ISBN 3-540-77205-7 (print), 3-540-77209-X (e-book). ISSN 1439-7358 (print), 2197-7100 (electronic). LCCN QA402.2 .M38 2008. URL http://link.springer.com/content/pdf/10.1007/978-3-540-77209-5_7.

Anonymous:2008:NMG

- [Ano08-28] Anonymous. Non-matching grid discretizations. In *Domain Decomposition Methods for the Numerical Solution of Partial Differential Equations* [Mat08a], pages 515–573. CODEN LNCSA6. ISBN 3-540-77205-7 (print), 3-540-77209-X (e-book). ISSN 1439-7358 (print), 2197-7100 (electronic). LCCN QA402.2 .M38 2008. URL http://link.springer.com/content/pdf/10.1007/978-3-540-77209-5_11.

Anonymous:2008:NSA

- [Ano08-29] Anonymous. Non-self adjoint elliptic equations: Iterative methods. In *Domain Decomposition Methods for the Numerical Solution of Partial Differential Equations* [Mat08a], pages 333–376. CODEN LNCSA6. ISBN 3-540-77205-7 (print), 3-540-77209-X (e-book). ISSN 1439-7358 (print), 2197-7100 (electronic). LCCN QA402.2 .M38 2008. URL http://link.springer.com/content/pdf/10.1007/978-3-540-77209-5_8.

Anonymous:2008:OP

- [Ano08-30] Anonymous. Optimization problems. In *Domain Decomposition Methods for the Numerical Solution of Partial Differential Equations* [Mat08a], pages 689–698. CODEN LNCSA6. ISBN 3-540-77205-7 (print), 3-540-77209-X (e-book). ISSN 1439-7358 (print), 2197-7100 (electronic). LCCN QA402.2 .M38 2008. URL http://link.springer.com/content/pdf/10.1007/978-3-540-77209-5_17.

Anonymous:2008:PE

- [Ano08-31] Anonymous. Parabolic equations. In *Domain Decomposition Methods for the Numerical Solution of Partial Differential Equations* [Mat08a], pages 377–416. CODEN LNCSA6. ISBN 3-540-77205-7 (print), 3-540-77209-X (e-book). ISSN 1439-7358 (print), 2197-7100 (electronic). LCCN QA402.2 .M38 2008. URL http://link.springer.com/content/pdf/10.1007/978-3-540-77209-5_9.

Anonymous:2008:SPP

- [Ano08-32] Anonymous. Saddle point problems. In *Domain Decomposition Methods for the Numerical Solution of Partial Differential Equations* [Mat08a], pages 417–513. CODEN LNCSA6. ISBN 3-540-77205-7 (print), 3-540-77209-X (e-book). ISSN 1439-7358 (print), 2197-7100 (electronic). LCCN QA402.2 .M38

2008. URL http://link.springer.com/content/pdf/10.1007/978-3-540-77209-5_10.

Anonymous:2008:SCI

- [Ano08-33] Anonymous. Schur complement and iterative substructuring algorithms. In *Domain Decomposition Methods for the Numerical Solution of Partial Differential Equations* [Mat08a], pages 107–230. CODEN LNCSA6. ISBN 3-540-77205-7 (print), 3-540-77209-X (e-book). ISSN 1439-7358 (print), 2197-7100 (electronic). LCCN QA402.2 .M38 2008. URL http://link.springer.com/content/pdf/10.1007/978-3-540-77209-5_3.

Anonymous:2008:SIA

- [Ano08-34] Anonymous. Schwarz iterative algorithms. In *Domain Decomposition Methods for the Numerical Solution of Partial Differential Equations* [Mat08a], pages 47–105. CODEN LNCSA6. ISBN 3-540-77205-7 (print), 3-540-77209-X (e-book). ISSN 1439-7358 (print), 2197-7100 (electronic). LCCN QA402.2 .M38 2008. URL http://link.springer.com/content/pdf/10.1007/978-3-540-77209-5_2.

Anonymous:2008:VIO

- [Ano08-35] Anonymous. Variational inequalities and obstacle problems. In *Domain Decomposition Methods for the Numerical Solution of Partial Differential Equations* [Mat08a], pages 621–646. CODEN LNCSA6. ISBN 3-540-77205-7 (print), 3-540-77209-X (e-book). ISSN 1439-7358 (print), 2197-7100 (electronic). LCCN QA402.2 .M38 2008. URL http://link.springer.com/content/pdf/10.1007/978-3-540-77209-5_14.

Anonymous:2009:BMa

- [Ano09a] Anonymous. Back matter. In Engquist et al. [ELR09], pages 321–326. CODEN LNCSA6. ISBN 3-540-88856-X (paperback), 3-540-88857-8 (e-book). ISSN 1439-7358 (print), 2197-7100 (electronic). LCCN Q183.9 .M86 2009. URL <http://link.springer.com/content/pdf/bbm:978-3-540-88857-4/1>. Summer School on Multiscale Modeling and Simulation in Science, Bosön, Lidingö outside Stockholm, Sweden, June 2007.

Anonymous:2009:BMb

- [Ano09b] Anonymous. Back matter. In Yip and Diaz de la Rubia [YD09], pages i–vi. CODEN LNCSA6. ISBN 1-4020-9740-9

(print), 1-4020-9741-7 (e-book). ISSN 1439-7358 (print), 2197-7100 (electronic). LCCN ???? URL <http://link.springer.com/content/pdf/bbm:978-1-4020-9741-6/1>. Previously published in *Scientific Modeling and Simulations*, Volume 15, Issues 1–3, 2008.

Anonymous:2009:BMc

- [Ano09c] Anonymous. Back matter. In Peters [Pet09], pages 128–133. CODEN LNCSA6. ISBN 3-642-04465-4 (print), 3-642-04466-2 (e-book). ISSN 1439-7358 (print), 2197-7100 (electronic). LCCN QA911 .C6234 2009. URL <http://link.springer.com/content/pdf/bbm:978-3-642-04466-3/1>.

Anonymous:2009:BMd

- [Ano09d] Anonymous. Back matter. In *Computational partial differential equations: numerical methods and Diffpack programming* [Lan03a], pages 1201–1288. ISBN 3-540-43416-X (softcover), 3-642-55769-4 (e-book). ISSN 1611-0994. LCCN QA377 .L355 2003. URL <http://link.springer.com/content/pdf/bbm:978-3-540-30421-0/1>.

Anonymous:2009:BI

- [Ano09e] Anonymous. Biographies index. In *Computational partial differential equations: numerical methods and Diffpack programming* [Lan03a], pages 1035–1200. ISBN 3-540-43416-X (softcover), 3-642-55769-4 (e-book). ISSN 1611-0994. LCCN QA377 .L355 2003. URL http://link.springer.com/content/pdf/10.1007/978-3-540-30421-0_5.

Anonymous:2009:C

- [Ano09f] Anonymous. Chronology. In *Computational partial differential equations: numerical methods and Diffpack programming* [Lan03a], pages 169–844. ISBN 3-540-43416-X (softcover), 3-642-55769-4 (e-book). ISSN 1611-0994. LCCN QA377 .L355 2003. URL http://link.springer.com/content/pdf/10.1007/978-3-540-30421-0_3.

Anonymous:2009:FMa

- [Ano09g] Anonymous. Front matter. In Engquist et al. [ELR09], pages i–xiii. CODEN LNCSA6. ISBN 3-540-88856-X (paperback), 3-540-88857-8 (e-book). ISSN 1439-7358 (print), 2197-7100 (electronic). LCCN Q183.9 .M86 2009. URL <http://link.springer.com/content/pdf/bfm:978-3-540-88857-4/1>. Summer School on Multiscale Modeling and Simulation

in Science, Bosön, Lidingö outside Stockholm, Sweden, June 2007.

Anonymous:2009:FMb

- [Ano09h] Anonymous. Front matter. In Tuncer et al. [TGEM09], pages 1–9. CODEN LNCSA6. ISBN 3-540-92743-3 (print), 3-540-92744-1 (e-book). ISSN 1439-7358 (print), 2197-7100 (electronic). LCCN ????. URL <http://link.springer.com/content/pdf/bfm:978-3-540-92744-0/1>. Parallel CFD 2007 was held in Antalya, Turkey, from May 21 to 24, 2007.

Anonymous:2009:FMc

- [Ano09i] Anonymous. Front matter. In Yip and Diaz de la Rubia [YD09], pages i–v. CODEN LNCSA6. ISBN 1-4020-9740-9 (print), 1-4020-9741-7 (e-book). ISSN 1439-7358 (print), 2197-7100 (electronic). LCCN ????. URL <http://link.springer.com/content/pdf/bfm:978-1-4020-9741-6/1>. Previously published in *Scientific Modeling and Simulations*, Volume 15, Issues 1–3, 2008.

Anonymous:2009:FMd

- [Ano09j] Anonymous. Front matter. In Hegarty et al. [HKOS09], page 1. CODEN LNCSA6. ISBN 3-642-00604-3 (print), 3-642-00605-1 (e-book). ISSN 1439-7358 (print), 2197-7100 (electronic). LCCN ????. URL <http://link.springer.com/content/pdf/bfm:978-3-642-00605-0/1/1>.

Anonymous:2009:FMe

- [Ano09k] Anonymous. Front matter. In Hegarty et al. [HKOS09], pages 1–12. CODEN LNCSA6. ISBN 3-642-00604-3 (print), 3-642-00605-1 (e-book). ISSN 1439-7358 (print), 2197-7100 (electronic). LCCN ????. URL <http://link.springer.com/content/pdf/bfm:978-3-642-00605-0/1>.

Anonymous:2009:FMf

- [Ano09l] Anonymous. Front matter. In Hegarty et al. [HKOS09], page 78. CODEN LNCSA6. ISBN 3-642-00604-3 (print), 3-642-00605-1 (e-book). ISSN 1439-7358 (print), 2197-7100 (electronic). LCCN ????. URL <http://link.springer.com/content/pdf/bfm:978-3-642-00605-0/2/1>.

Anonymous:2009:FMg

- [Ano09m] Anonymous. Front matter. In Bercovier et al. [BGKW09], page 1. CODEN LNCSA6. ISBN 3-642-02676-1 (print), 3-

642-02677-X (e-book). ISSN 1439-7358 (print), 2197-7100 (electronic). LCCN QA402.2 .I584 2009. URL <http://link.springer.com/content/pdf/bfm:978-3-642-02677-5/1/1>.

Anonymous:2009:FMh

- [Ano09n] Anonymous. Front matter. In Bercovier et al. [BGKW09], pages 1–15. CODEN LNCSA6. ISBN 3-642-02676-1 (print), 3-642-02677-X (e-book). ISSN 1439-7358 (print), 2197-7100 (electronic). LCCN QA402.2 .I584 2009. URL <http://link.springer.com/content/pdf/bfm:978-3-642-02677-5/1>.

Anonymous:2009:FMi

- [Ano09o] Anonymous. Front matter. In Bercovier et al. [BGKW09], page 111. CODEN LNCSA6. ISBN 3-642-02676-1 (print), 3-642-02677-X (e-book). ISSN 1439-7358 (print), 2197-7100 (electronic). LCCN QA402.2 .I584 2009. URL <http://link.springer.com/content/pdf/bfm:978-3-642-02677-5/2/1>.

Anonymous:2009:FMj

- [Ano09p] Anonymous. Front matter. In Peters [Pet09], pages i–xii. CODEN LNCSA6. ISBN 3-642-04465-4 (print), 3-642-04466-2 (e-book). ISSN 1439-7358 (print), 2197-7100 (electronic). LCCN QA911 .C6234 2009. URL <http://link.springer.com/content/pdf/bfm:978-3-642-04466-3/1>.

Anonymous:2009:GS

- [Ano09q] Anonymous. General survey. In *Computational partial differential equations: numerical methods and Diffpack programming* [Lan03a], pages 9–167. ISBN 3-540-43416-X (softcover), 3-642-55769-4 (e-book). ISSN 1611-0994. LCCN QA377 .L355 2003. URL http://link.springer.com/content/pdf/10.1007/978-3-540-30421-0_2.

Anonymous:2009:I

- [Ano09r] Anonymous. Introduction. In *Computational partial differential equations: numerical methods and Diffpack programming* [Lan03a], pages 1–7. ISBN 3-540-43416-X (softcover), 3-642-55769-4 (e-book). ISSN 1611-0994. LCCN QA377 .L355 2003. URL http://link.springer.com/content/pdf/10.1007/978-3-540-30421-0_1.

Anonymous:2009:PG

- [Ano09s] Anonymous. Picture gallery. In *Computational partial differential equations: numerical methods and Diffpack programming* [Lan03a], pages 845–1033. ISBN 3-540-43416-X (softcover), 3-642-55769-4 (e-book). ISSN 1611-0994. LCCN QA377 .L355 2003. URL http://link.springer.com/content/pdf/10.1007/978-3-540-30421-0_4.

Anonymous:2010:BMa

- [Ano10a] Anonymous. Back matter. In Koren and Vuik [KV10], pages 1–6. CODEN LNCSA6. ISBN 3-642-03343-1 (print), 3-642-03344-X (e-book). ISSN 1439-7358 (print), 2197-7100 (electronic). LCCN Q183.9 .A35 2010. URL <http://link.springer.com/content/pdf/bbm:978-3-642-03344-5/1>.

Anonymous:2010:BMb

- [Ano10b] Anonymous. Back matter. In Bungartz et al. [BMS10], pages 425–430. CODEN LNCSA6. ISBN 3-642-14205-2 (print), 3-642-14206-0 (e-book). ISSN 1439-7358 (print), 2197-7100 (electronic). LCCN TA357.5.F58 F586b 2010. URL <http://link.springer.com/content/pdf/bbm:978-3-642-14206-2/1>. Selected contributions from the *First International Workshop on Computational Engineering — special topic Fluid-Structure Interactions* held in Herrsching, Germany, in October 2009.

Anonymous:2010:FMa

- [Ano10c] Anonymous. Front matter. In Koren and Vuik [KV10], pages 1–8. CODEN LNCSA6. ISBN 3-642-03343-1 (print), 3-642-03344-X (e-book). ISSN 1439-7358 (print), 2197-7100 (electronic). LCCN Q183.9 .A35 2010. URL <http://link.springer.com/content/pdf/bfm:978-3-642-03344-5/1>.

Anonymous:2010:F Mb

- [Ano10d] Anonymous. Front matter. In Bungartz et al. [BMS10], pages i–viii. CODEN LNCSA6. ISBN 3-642-14205-2 (print), 3-642-14206-0 (e-book). ISSN 1439-7358 (print), 2197-7100 (electronic). LCCN TA357.5.F58 F586b 2010. URL <http://link.springer.com/content/pdf/bfm:978-3-642-14206-2/1>. Selected contributions from the *First International Workshop on Computational Engineering — special topic Fluid-Structure Interactions* held in Herrsching, Germany, in October 2009.

Anonymous:2011:BMa

- [Ano11a] Anonymous. Back matter. In Gorban and Roose [GR11b], pages 345–348. CODEN LNCSA6. ISBN 3-642-14940-5 (print), 3-642-14941-3 (e-book). ISSN 1439-7358 (print), 2197-7100 (electronic). LCCN QA401 .C67 2011. URL <http://link.springer.com/content/pdf/bbm:978-3-642-14941-2/1>. Extended versions of selected talks given at the international research workshop: *Coping with Complexity: Model Reduction and Data Analysis*, Ambleside, Lake District, UK, August 31–September 4, 2009 in conjunction with the A4A6, the 6th Conference on Algorithms for Approximation.

Anonymous:2011:BMb

- [Ano11b] Anonymous. Back matter. In *Sparse Grid Quadrature in High Dimensions with Applications in Finance and Insurance* [Hol11g], pages 157–189. CODEN LNCSA6. ISBN 3-642-16003-4 (print), 3-642-16004-2 (e-book). ISSN 1439-7358 (print), 2197-7100 (electronic). LCCN QA297 .H5886 2011. URL <http://link.springer.com/content/pdf/bbm:978-3-642-16004-2/1>.

Anonymous:2011:BMc

- [Ano11c] Anonymous. Back matter. In Griebel and Schweitzer [GS11c], pages 264–270. CODEN LNCSA6. ISBN 3-642-16228-2 (print), 3-642-16229-0 (e-book). ISSN 1439-7358 (print), 2197-7100 (electronic). LCCN ???? URL <http://link.springer.com/content/pdf/bbm:978-3-642-16229-9/1>. Proceedings of the Fifth International Workshop on Meshfree Methods for Partial Differential Equations held from August 17 to August 19, 2009 in Bonn, Germany.

Anonymous:2011:BMd

- [Ano11d] Anonymous. Back matter. In Lauritzen et al. [LJTN11], pages 557–563. CODEN LNCSA6. ISBN 3-642-11639-6 (print), 3-642-11640-X (e-book). ISSN 1439-7358 (print), 2197-7100 (electronic). LCCN QC861.3 .N86 2011. URL <http://link.springer.com/content/pdf/bbm:978-3-642-11640-7/1>. Proceedings of the colloquium *Numerical Techniques for Global Atmospheric Models* held at the National Center for Atmospheric Research (NCAR) in Boulder, Colorado, 1–13 June 2008.

Anonymous:2011:FMg

- [Ano11e] Anonymous. Front matter. In Tromeur-Dervout et al. [TDBEE11], pages i–xi. CODEN LNCSA6. ISBN 3-642-14437-3 (print), 3-642-14438-1 (e-book). ISSN 1439-7358 (print), 2197-7100 (electronic). LCCN ????. URL <http://link.springer.com/content/pdf/bfm:978-3-642-14438-7/1>. Proceedings of the twentieth meeting, Parallel CFD 2008, held May 19–22, 2008 in Lyon, France.

Anonymous:2011:FMa

- [Ano11f] Anonymous. Front matter. In Tromeur-Dervout et al. [TDBEE11], page 1. CODEN LNCSA6. ISBN 3-642-14437-3 (print), 3-642-14438-1 (e-book). ISSN 1439-7358 (print), 2197-7100 (electronic). LCCN ????. URL <http://link.springer.com/content/pdf/bfm:978-3-642-14438-7/1/1>. Proceedings of the twentieth meeting, Parallel CFD 2008, held May 19–22, 2008 in Lyon, France.

Anonymous:2011:F Mb

- [Ano11g] Anonymous. Front matter. In Tromeur-Dervout et al. [TDBEE11], page 41. CODEN LNCSA6. ISBN 3-642-14437-3 (print), 3-642-14438-1 (e-book). ISSN 1439-7358 (print), 2197-7100 (electronic). LCCN ????. URL <http://link.springer.com/content/pdf/bfm:978-3-642-14438-7/2/1>. Proceedings of the twentieth meeting, Parallel CFD 2008, held May 19–22, 2008 in Lyon, France.

Anonymous:2011:F Mc

- [Ano11h] Anonymous. Front matter. In Tromeur-Dervout et al. [TDBEE11], page 91. CODEN LNCSA6. ISBN 3-642-14437-3 (print), 3-642-14438-1 (e-book). ISSN 1439-7358 (print), 2197-7100 (electronic). LCCN ????. URL <http://link.springer.com/content/pdf/bfm:978-3-642-14438-7/3/1>. Proceedings of the twentieth meeting, Parallel CFD 2008, held May 19–22, 2008 in Lyon, France.

Anonymous:2011:F Md

- [Ano11i] Anonymous. Front matter. In Tromeur-Dervout et al. [TDBEE11], page 135. CODEN LNCSA6. ISBN 3-642-14437-3 (print), 3-642-14438-1 (e-book). ISSN 1439-7358 (print), 2197-7100 (electronic). LCCN ????. URL <http://link.springer.com/content/pdf/bfm:978-3-642-14438-7/4/1>.

Proceedings of the twentieth meeting, Parallel CFD 2008, held May 19–22, 2008 in Lyon, France.

Anonymous:2011:FMe

- [Ano11j] Anonymous. Front matter. In Tromeur-Dervout et al. [TDBEE11], page 161. CODEN LNCSA6. ISBN 3-642-14437-3 (print), 3-642-14438-1 (e-book). ISSN 1439-7358 (print), 2197-7100 (electronic). LCCN ????. URL <http://link.springer.com/content/pdf/bfm:978-3-642-14438-7/5/1>. Proceedings of the twentieth meeting, Parallel CFD 2008, held May 19–22, 2008 in Lyon, France.

Anonymous:2011:FMf

- [Ano11k] Anonymous. Front matter. In Tromeur-Dervout et al. [TDBEE11], page 181. CODEN LNCSA6. ISBN 3-642-14437-3 (print), 3-642-14438-1 (e-book). ISSN 1439-7358 (print), 2197-7100 (electronic). LCCN ????. URL <http://link.springer.com/content/pdf/bfm:978-3-642-14438-7/6/1>. Proceedings of the twentieth meeting, Parallel CFD 2008, held May 19–22, 2008 in Lyon, France.

Anonymous:2011:FMh

- [Ano11l] Anonymous. Front matter. In Gorban and Roose [GR11b], pages i–xii. CODEN LNCSA6. ISBN 3-642-14940-5 (print), 3-642-14941-3 (e-book). ISSN 1439-7358 (print), 2197-7100 (electronic). LCCN QA401 .C67 2011. URL <http://link.springer.com/content/pdf/bfm:978-3-642-14941-2/1>. Extended versions of selected talks given at the international research workshop: *Coping with Complexity: Model Reduction and Data Analysis*, Ambleside, Lake District, UK, August 31–September 4, 2009 in conjunction with the A4A6, the 6th Conference on Algorithms for Approximation.

Anonymous:2011:FMi

- [Ano11m] Anonymous. Front matter. In Hesthaven and Rønquist [HR11], pages i–xi. CODEN LNCSA6. ISBN 3-642-15336-4 (print), 3-642-15337-2 (e-book). ISSN 1439-7358 (print), 2197-7100 (electronic). LCCN ????. URL <http://link.springer.com/content/pdf/bfm:978-3-642-15337-2/1>.

Anonymous:2011:FMI

- [Ano11n] Anonymous. Front matter. In Huang et al. [HKWX11], pages i–xxiv. CODEN LNCSA6. ISBN 3-642-11303-6 (print), 3-

642-11304-4 (e-book). ISSN 1439-7358 (print), 2197-7100 (electronic). LCCN QA402.2 .I58 2011. URL <http://link.springer.com/content/pdf/bfm:978-3-642-11304-8/1>. Papers presented at the 19th International Conference on Domain Decomposition, DD19, hosted by the School of Mathematics and Computational Science of the Xiangtan University and the Hunan Key Laboratory for Computation and Simulation in Science and Engineering and held in Zhanjiajie, China, August 17–22, 2009.

Anonymous:2011:FMj

- [Ano11o] Anonymous. Front matter. In Huang et al. [HKWX11], page 1. CODEN LNCSA6. ISBN 3-642-11303-6 (print), 3-642-11304-4 (e-book). ISSN 1439-7358 (print), 2197-7100 (electronic). LCCN QA402.2 .I58 2011. URL <http://link.springer.com/content/pdf/bfm:978-3-642-11304-8/1/1>. Papers presented at the 19th International Conference on Domain Decomposition, DD19, hosted by the School of Mathematics and Computational Science of the Xiangtan University and the Hunan Key Laboratory for Computation and Simulation in Science and Engineering and held in Zhanjiajie, China, August 17–22, 2009.

Anonymous:2011:FMk

- [Ano11p] Anonymous. Front matter. In Huang et al. [HKWX11], page 99. CODEN LNCSA6. ISBN 3-642-11303-6 (print), 3-642-11304-4 (e-book). ISSN 1439-7358 (print), 2197-7100 (electronic). LCCN QA402.2 .I58 2011. URL <http://link.springer.com/content/pdf/bfm:978-3-642-11304-8/2/1>. Papers presented at the 19th International Conference on Domain Decomposition, DD19, hosted by the School of Mathematics and Computational Science of the Xiangtan University and the Hunan Key Laboratory for Computation and Simulation in Science and Engineering and held in Zhanjiajie, China, August 17–22, 2009.

Anonymous:2011:FMm

- [Ano11q] Anonymous. Front matter. In Griebel and Schweitzer [GS11c], pages i–viii. CODEN LNCSA6. ISBN 3-642-16228-2 (print), 3-642-16229-0 (e-book). ISSN 1439-7358 (print), 2197-7100 (electronic). LCCN ????? URL <http://link.springer.com/content/pdf/bfm:978-3-642-16229-9/1>. Proceedings of the Fifth International Workshop on Meshfree Methods for

Partial Differential Equations held from August 17 to August 19, 2009 in Bonn, Germany.

Anonymous:2011:FMq

- [Ano11r] Anonymous. Front matter. In Lauritzen et al. [LJTN11], pages i–xvi. CODEN LNCSA6. ISBN 3-642-11639-6 (print), 3-642-11640-X (e-book). ISSN 1439-7358 (print), 2197-7100 (electronic). LCCN QC861.3 .N86 2011. URL <http://link.springer.com/content/pdf/bfm:978-3-642-11640-7/1>. Proceedings of the colloquium *Numerical Techniques for Global Atmospheric Models* held at the National Center for Atmospheric Research (NCAR) in Boulder, Colorado, 1–13 June 2008.

Anonymous:2011:FMn

- [Ano11s] Anonymous. Front matter. In Lauritzen et al. [LJTN11], page 1. CODEN LNCSA6. ISBN 3-642-11639-6 (print), 3-642-11640-X (e-book). ISSN 1439-7358 (print), 2197-7100 (electronic). LCCN QC861.3 .N86 2011. URL <http://link.springer.com/content/pdf/bfm:978-3-642-11640-7/1/1>. Proceedings of the colloquium *Numerical Techniques for Global Atmospheric Models* held at the National Center for Atmospheric Research (NCAR) in Boulder, Colorado, 1–13 June 2008.

Anonymous:2011:FMo

- [Ano11t] Anonymous. Front matter. In Lauritzen et al. [LJTN11], page 141. CODEN LNCSA6. ISBN 3-642-11639-6 (print), 3-642-11640-X (e-book). ISSN 1439-7358 (print), 2197-7100 (electronic). LCCN QC861.3 .N86 2011. URL <http://link.springer.com/content/pdf/bfm:978-3-642-11640-7/2/1>. Proceedings of the colloquium *Numerical Techniques for Global Atmospheric Models* held at the National Center for Atmospheric Research (NCAR) in Boulder, Colorado, 1–13 June 2008.

Anonymous:2011:FMp

- [Ano11u] Anonymous. Front matter. In Lauritzen et al. [LJTN11], page 343. CODEN LNCSA6. ISBN 3-642-11639-6 (print), 3-642-11640-X (e-book). ISSN 1439-7358 (print), 2197-7100 (electronic). LCCN QC861.3 .N86 2011. URL <http://link.springer.com/content/pdf/bfm:978-3-642-11640-7/3/1>. Proceedings of the colloquium *Numerical Techniques for Global Atmospheric Models* held at the National Center for

Atmospheric Research (NCAR) in Boulder, Colorado, 1–13 June 2008.

Anonymous:2011:FMr

- [Ano11v] Anonymous. Front matter. In Clavero et al. [CGL11], pages i–xiii. CODEN LNCSA6. ISBN 3-642-19664-0 (print), 3-642-19665-9 (e-book). ISSN 1439-7358 (print), 2197-7100 (electronic). LCCN ????? URL <http://link.springer.com/content/pdf/bfm:978-3-642-19665-2/1>. Selected papers from the proceedings of BAIL 2010 (Boundary and Interior Layers — Computational and Asymptotic Methods), held from 5 to 9 July 2010 at the University of Zaragoza, Spain.

Anonymous:2012:BMa

- [Ano12a] Anonymous. Back matter. In Engquist et al. [ERT12], pages 421–427. CODEN LNCSA6. ISBN 3-642-21942-X (print), 3-642-21943-8 (e-book). ISSN 1439-7358 (print), 2197-7100 (electronic). LCCN ????? URL <http://link.springer.com/content/pdf/bbm:978-3-642-21943-6/1>.

Anonymous:2012:BMb

- [Ano12b] Anonymous. Back matter. In Graham et al. [GHLS12], pages 365–371. CODEN LNCSA6. ISBN 3-642-22060-6 (print), 3-642-22061-4 (e-book). ISSN 1439-7358 (print), 2197-7100 (electronic). LCCN QA297 .N844 2012. URL <http://link.springer.com/content/pdf/bbm:978-3-642-22061-6/1>. Ten invited expository articles from the 91st LMS Durham Symposium on *Numerical Analysis of Multiscale Problems*, Durham, UK, 5–15 July 2010.

Anonymous:2012:BMc

- [Ano12c] Anonymous. Back matter. In Blowey and Jensen [BJ12], pages 283–289. CODEN LNCSA6. ISBN 3-642-23913-7 (print), 3-642-23914-5 (e-book). ISSN 1439-7358 (print), 2197-7100 (electronic). LCCN ????? URL <http://link.springer.com/content/pdf/bbm:978-3-642-23914-4/1>. Proceedings of the Twelfth LMS–EPSRC Summer School in Computational Mathematics and Scientific Computation held at the University of Durham, UK, 25–31 July 2010.

Anonymous:2012:BMd

- [Ano12d] Anonymous. Back matter. In Kolditz et al. [KGSW12], pages 345–391. CODEN LNCSA6. ISBN 3-642-27176-6 (print),

3-642-27177-4 (e-book). ISSN 1439-7358 (print), 2197-7100 (electronic). LCCN ????. URL <http://link.springer.com/content/pdf/bm:978-3-642-27177-9/1>.

Anonymous:2012:FMa

- [Ano12e] Anonymous. Front matter. In Engquist et al. [ERT12], pages i–x. CODEN LNCSA6. ISBN 3-642-21942-X (print), 3-642-21943-8 (e-book). ISSN 1439-7358 (print), 2197-7100 (electronic). LCCN ????. URL <http://link.springer.com/content/pdf/bfm:978-3-642-21943-6/1>.

Anonymous:2012:F Mb

- [Ano12f] Anonymous. Front matter. In Graham et al. [GHLS12], pages i–x. CODEN LNCSA6. ISBN 3-642-22060-6 (print), 3-642-22061-4 (e-book). ISSN 1439-7358 (print), 2197-7100 (electronic). LCCN QA297 .N844 2012. URL <http://link.springer.com/content/pdf/bfm:978-3-642-22061-6/1>. Ten invited expository articles from the 91st LMS Durham Symposium on *Numerical Analysis of Multiscale Problems*, Durham, UK, 5–15 July 2010.

Anonymous:2012:F Mf

- [Ano12g] Anonymous. Front matter. In Logg et al. [LMW12a], pages i–xiii. CODEN LNCSA6. ISBN 3-642-23098-9 (print), 3-642-23099-7 (e-book). ISSN 1439-7358 (print), 2197-7100 (electronic). LCCN ????. URL <http://link.springer.com/content/pdf/bfm:978-3-642-23099-8/1>. The software developed by the FEniCS Project is free for all to use and modify (licensed under the GNU (L)GPL), and so is this book.

Anonymous:2012:F Mc

- [Ano12h] Anonymous. Front matter. In Logg et al. [LMW12a], page 75. CODEN LNCSA6. ISBN 3-642-23098-9 (print), 3-642-23099-7 (e-book). ISSN 1439-7358 (print), 2197-7100 (electronic). LCCN ????. URL <http://link.springer.com/content/pdf/bfm:978-3-642-23099-8/1/1>. The software developed by the FEniCS Project is free for all to use and modify (licensed under the GNU (L)GPL), and so is this book.

Anonymous:2012:F Md

- [Ano12i] Anonymous. Front matter. In Logg et al. [LMW12a], page 171. CODEN LNCSA6. ISBN 3-642-23098-9 (print), 3-642-23099-7 (e-book). ISSN 1439-7358 (print), 2197-7100 (elec-

tronic). LCCN ????. URL <http://link.springer.com/content/pdf/bfm:978-3-642-23099-8/2/1>. The software developed by the FEniCS Project is free for all to use and modify (licensed under the GNU (L)GPL), and so is this book.

Anonymous:2012:FMe

- [Ano12j] Anonymous. Front matter. In Logg et al. [LMW12a], page 383. CODEN LNCSA6. ISBN 3-642-23098-9 (print), 3-642-23099-7 (e-book). ISSN 1439-7358 (print), 2197-7100 (electronic). LCCN ????. URL <http://link.springer.com/content/pdf/bfm:978-3-642-23099-8/3/1>. The software developed by the FEniCS Project is free for all to use and modify (licensed under the GNU (L)GPL), and so is this book.

Anonymous:2012:FMg

- [Ano12k] Anonymous. Front matter. In Blowey and Jensen [BJ12], pages i–xi. CODEN LNCSA6. ISBN 3-642-23913-7 (print), 3-642-23914-5 (e-book). ISSN 1439-7358 (print), 2197-7100 (electronic). LCCN ????. URL <http://link.springer.com/content/pdf/bfm:978-3-642-23914-4/1>. Proceedings of the Twelfth LMS–EPSRC Summer School in Computational Mathematics and Scientific Computation held at the University of Durham, UK, 25–31 July 2010.

Anonymous:2012:FMk

- [Ano12l] Anonymous. Front matter. In Kolditz et al. [KGSW12], pages i–xiii. CODEN LNCSA6. ISBN 3-642-27176-6 (print), 3-642-27177-4 (e-book). ISSN 1439-7358 (print), 2197-7100 (electronic). LCCN ????. URL <http://link.springer.com/content/pdf/bfm:978-3-642-27177-9/1>.

Anonymous:2012:FMh

- [Ano12m] Anonymous. Front matter. In Kolditz et al. [KGSW12], page 7. CODEN LNCSA6. ISBN 3-642-27176-6 (print), 3-642-27177-4 (e-book). ISSN 1439-7358 (print), 2197-7100 (electronic). LCCN ????. URL <http://link.springer.com/content/pdf/bfm:978-3-642-27177-9/1/1>.

Anonymous:2012:FMi

- [Ano12n] Anonymous. Front matter. In Kolditz et al. [KGSW12], page 87. CODEN LNCSA6. ISBN 3-642-27176-6 (print), 3-642-27177-4 (e-book). ISSN 1439-7358 (print), 2197-7100

(electronic). LCCN ???? URL <http://link.springer.com/content/pdf/bfm:978-3-642-27177-9/2/1>.

Anonymous:2012:FMj

- [Ano12o] Anonymous. Front matter. In Kolditz et al. [KGSW12], page 233. CODEN LNCSA6. ISBN 3-642-27176-6 (print), 3-642-27177-4 (e-book). ISSN 1439-7358 (print), 2197-7100 (electronic). LCCN ???? URL <http://link.springer.com/content/pdf/bfm:978-3-642-27177-9/3/1>.

Anonymous:2012:FMI

- [Ano12p] Anonymous. Front matter. In Forth et al. [FHP⁺12], pages i–xvii. CODEN LNCSA6. ISBN 3-642-30022-7 (print), 3-642-30023-5 (e-book). ISSN 1439-7358 (print), 2197-7100 (electronic). LCCN ???? URL <http://link.springer.com/content/pdf/bfm:978-3-642-30023-3/1>. Proceedings of the Sixth International Conference on Automatic Differentiation (AD2012) held July 23–27, 2012, in Fort Collins, Colorado, USA.

Anonymous:2013:BMa

- [Ano13a] Anonymous. Back matter. In Garcke and Griebel [GG13], pages 277–283. CODEN LNCSA6. ISBN 3-642-31702-2 (print), 3-642-31703-0 (e-book). ISSN 1439-7358 (print), 2197-7100 (electronic). LCCN ???? URL <http://link.springer.com/content/pdf/bbm:978-3-642-31703-3/1>. Proceedings of workshop in Bonn, Germany, from May 16–20, 2011.

Anonymous:2013:BMb

- [Ano13b] Anonymous. Back matter. In Griebel and Schweitzer [GS13b], pages 243–249. CODEN LNCSA6. ISBN 3-642-32978-0 (print), 3-642-32979-9 (e-book). ISSN 1439-7358 (print), 2197-7100 (electronic). LCCN QA297 .I58 2011. URL <http://link.springer.com/content/pdf/bbm:978-3-642-32979-1/1>. Proceedings of the Sixth International Workshop on Meshfree Methods for Partial Differential Equations, October 4–6, 2011, Bonn, Germany.

Anonymous:2013:BMc

- [Ano13c] Anonymous. Back matter. In Pechstein [Pec13b], pages 283–312. CODEN LNCSA6. ISBN 3-642-23587-5 (hardcover), 3-642-23588-3 (e-book). ISSN 1439-7358 (print), 2197-7100

(electronic). LCCN TA342 .P43 2013. URL <http://link.springer.com/content/pdf/bbm:978-3-642-23588-7/1>.

Anonymous:2013:BMd

- [Ano13d] Anonymous. Back matter. In Bijl et al. [BLMS13], pages 335–341. ISBN 3-319-00884-6 (hardcover), 3-319-00885-4 (e-book). ISSN 1439-7358 (print), 2197-7100 (electronic). LCCN ??? URL <http://link.springer.com/content/pdf/bbm:978-3-319-00885-1/1.pdf>.

Anonymous:2013:BMe

- [Ano13e] Anonymous. Back matter. In Bader et al. [BBW13], pages 241–247. ISBN 3-642-38761-6, 3-642-38762-4 (e-book). ISSN 1439-7358 (print), 2197-7100 (electronic). LCCN ??? URL <http://link.springer.com/content/pdf/bbm:978-3-642-38762-3/1.pdf>.

Anonymous:2013:FMA

- [Ano13f] Anonymous. Front matter. In Garcke and Griebel [GG13], pages i–x. CODEN LNCSA6. ISBN 3-642-31702-2 (print), 3-642-31703-0 (e-book). ISSN 1439-7358 (print), 2197-7100 (electronic). LCCN ??? URL <http://link.springer.com/content/pdf/bfm:978-3-642-31703-3/1>. Proceedings of workshop in Bonn, Germany, from May 16–20, 2011.

Anonymous:2013:F Mb

- [Ano13g] Anonymous. Front matter. In Griebel and Schweitzer [GS13b], pages i–viii. CODEN LNCSA6. ISBN 3-642-32978-0 (print), 3-642-32979-9 (e-book). ISSN 1439-7358 (print), 2197-7100 (electronic). LCCN QA297 .I58 2011. URL <http://link.springer.com/content/pdf/bfm:978-3-642-32979-1/1>. Proceedings of the Sixth International Workshop on Meshfree Methods for Partial Differential Equations, October 4–6, 2011, Bonn, Germany.

Anonymous:2013:F Mc

- [Ano13h] Anonymous. Front matter. In Bank [Ban13], pages i–xix. ISBN 3-642-35274-X (hardcover), 3-642-35275-8 (e-book). ISSN 1439-7358 (print), 2197-7100 (electronic). LCCN QA402.2 .I58 2011. URL <http://link.springer.com/content/pdf/bfm:978-3-642-35275-1/1.pdf>.

Anonymous:2013:FMd

- [Ano13i] Anonymous. Front matter. In Bank [Ban13], page 1. ISBN 3-642-35274-X (hardcover), 3-642-35275-8 (e-book). ISSN 1439-7358 (print), 2197-7100 (electronic). LCCN QA402.2 .I58 2011. URL <http://link.springer.com/content/pdf/bfm:978-3-642-35275-1/1/1.pdf>.

Anonymous:2013:FMe

- [Ano13j] Anonymous. Front matter. In Bank [Ban13], page 85. ISBN 3-642-35274-X (hardcover), 3-642-35275-8 (e-book). ISSN 1439-7358 (print), 2197-7100 (electronic). LCCN QA402.2 .I58 2011. URL <http://link.springer.com/content/pdf/bfm:978-3-642-35275-1/2/1.pdf>.

Anonymous:2013:FMf

- [Ano13k] Anonymous. Front matter. In Bijl et al. [BLMS13], pages i–xi. ISBN 3-319-00884-6 (hardcover), 3-319-00885-4 (e-book). ISSN 1439-7358 (print), 2197-7100 (electronic). LCCN ????. URL <http://link.springer.com/content/pdf/bfm:978-3-319-00885-1/1.pdf>.

Anonymous:2013:FMg

- [Ano13l] Anonymous. Front matter. In Bader et al. [BBW13], pages i–xii. ISBN 3-642-38761-6, 3-642-38762-4 (e-book). ISSN 1439-7358 (print), 2197-7100 (electronic). LCCN ????. URL <http://link.springer.com/content/pdf/bfm:978-3-642-38762-3/1.pdf>.

Anonymous:2014:BM

- [Ano14a] Anonymous. Back matter. In Graziani et al. [GDRT14b], pages 283–289. ISBN 3-319-04912-7. ISSN 1439-7358 (print), 2197-7100 (electronic). LCCN QA71-90. URL <http://link.springer.com/content/pdf/bfm:978-3-319-04912-0/1.pdf>.

Anonymous:2014:FM

- [Ano14b] Anonymous. Front matter. In Azaïez et al. [AHE13], pages i–ix. ISBN 3-319-01600-8 (hardcover). ISSN 1439-7358 (print), 2197-7100 (electronic). LCCN ????. URL <http://link.springer.com/content/pdf/bfm:978-3-319-01601-6/1.pdf>.

Anthonissen:2005:LDC

- [Ant05] Martijn Anthonissen. Local defect correction techniques applied to a combustion problem. In Kornhuber et al. [KHP⁺05], pages 185–192. CODEN LNCSA6. ISBN 3-540-22523-4 (print), 3-540-26825-1 (e-book). ISSN 1439-7358 (print), 2197-7100 (electronic). LCCN QA402.2 .I55 2003. URL http://link.springer.com/content/pdf/10.1007/3-540-26825-1_15. Papers from the 15th International Conference on Domain Decomposition, Freie Universität Berlin (FU), Berlin, Germany, July 21–25, 2003.

Arroyo:2007:LME

- [AO07] Marino Arroyo and Michael Ortiz. Local maximum-entropy approximation schemes. In Griebel and Schweitzer [GS07b], pages 1–16. CODEN LNCSA6. ISBN 3-540-46214-7 (print), 3-540-46222-8 (e-book). ISSN 1439-7358 (print), 2197-7100 (electronic). LCCN QA377 .M45 2005. URL http://link.springer.com/content/pdf/10.1007/978-3-540-46222-4_1. Third international workshop on Meshfree Methods for Partial Differential Equations held from September 12 to September 15, 2005 in Bonn, Germany.

Avila:2008:PCA

- [AP08] Rubén Avila and Apolinar Pérez. A pressure correction approach coupled with the MLPG method for the solution of the Navier–Stokes equations. In Griebel and Schweitzer [GS08d], pages 19–33. CODEN LNCSA6. ISBN 3-540-79993-1 (print), 3-540-79994-X (e-book). ISSN 1439-7358 (print), 2197-7100 (electronic). LCCN ???? URL http://link.springer.com/content/pdf/10.1007/978-3-540-79994-8_2. Fourth International Workshop on Meshfree Methods for Partial Differential Equations held from September 17 to September 20, 2007 in Bonn, Germany.

Anderson:2005:DAA

- [APE05] R. W. Anderson, R. B. Pember, and N. S. Elliott. A dynamically adaptive arbitrary Lagrangian–Eulerian method for hydrodynamics. In Plewa et al. [PLW05], pages 73–81. CODEN LNCSA6. ISBN 3-540-21147-0 (print), 3-540-27039-6 (e-book). ISSN 1439-7358 (print), 2197-7100 (electronic). LCCN QA377 .C46 2003. URL http://link.springer.com/content/pdf/10.1007/3-540-27039-6_4.

Arraras:2009:LID

- [APJ09] A. Arrarás, L. Portero, and J. C. Jorge. Linearly implicit domain decomposition methods for nonlinear time-dependent reaction-diffusion problems. In Bercovier et al. [BGKW09], pages 267–274. CODEN LNCSA6. ISBN 3-642-02676-1 (print), 3-642-02677-X (e-book). ISSN 1439-7358 (print), 2197-7100 (electronic). LCCN QA402.2 .I584 2009. URL http://link.springer.com/content/pdf/10.1007/978-3-642-02677-5_29.

Auteri:2014:LSB

- [AQ14] F. Auteri and L. Quartapelle. Laguerre simulation of boundary layer flows: Conditions at large distance from the wall. In Azaïez et al. [AHE13], pages 99–109. ISBN 3-319-01600-8 (hardcover). ISSN 1439-7358 (print), 2197-7100 (electronic). LCCN ????? URL http://link.springer.com/chapter/10.1007/978-3-319-01601-6_7/.

Ascher:1999:SDI

- [AR99] Uri M. Ascher and Sebastian Reich. On some difficulties in integrating highly oscillatory Hamiltonian systems. In Deuffhard et al. [DHL⁺99], pages 281–296. CODEN LNCSA6. ISBN 3-540-63242-5 (print), 3-642-58360-1 (e-book). ISSN 1439-7358 (print), 2197-7100 (electronic). LCCN QP517.M65 I56 1999. URL http://link.springer.com/chapter/10.1007/978-3-642-58360-5_15/.

Adamidis:2002:PCS

- [AR02] P. A. Adamidis and M. M. Resch. Parallel coupled simulation of casting processes on cluster of PCs. In Breuer et al. [BDZ02], pages 221–228. CODEN LNCSA6. ISBN 3-540-42946-8 (print), 3-642-55919-0 (e-book). ISSN 1439-7358 (print), 2197-7100 (electronic). LCCN Q183.9 .I58 2001. URL http://link.springer.com/content/pdf/10.1007/978-3-642-55919-8_24.

Akhmatskaya:2006:TSH

- [AR06] Elena Akhmatkaya and Sebastian Reich. The targeted shadowing hybrid Monte Carlo (TSHMC) method. In Leimkuhler et al. [LCE⁺06], pages 141–153. CODEN LNCSA6. ISBN 3-540-25542-7 (print), 3-540-31618-3 (e-book). ISSN 1439-7358 (print), 2197-7100 (electronic). LCCN QP517.M3 N49

2006. URL http://link.springer.com/content/pdf/10.1007/3-540-31618-3_9. Papers from the fourth edition of *Algorithms for Macromolecular Modelling*, Leicester, UK August 2004.

Arbogast:2012:MMM

- [Arb12] Todd Arbogast. Mixed multiscale methods for heterogeneous elliptic problems. In Graham et al. [GHLS12], pages 243–283. CODEN LNCSA6. ISBN 3-642-22060-6 (print), 3-642-22061-4 (e-book). ISSN 1439-7358 (print), 2197-7100 (electronic). LCCN QA297 .N844 2012. URL http://link.springer.com/content/pdf/10.1007/978-3-642-22061-6_8. Ten invited expository articles from the 91st LMS Durham Symposium on *Numerical Analysis of Multiscale Problems*, Durham, UK, 5–15 July 2010.

Arthur:2000:JES

- [Art00] John K. Arthur. Java as an environment for scientific computing. In Langtangen et al. [LBQ00], pages 179–196. CODEN LNCSA6. ISBN 3-540-66557-9 (softcover), 3-642-57172-7 (e-book). ISSN 1439-7358 (print), 2197-7100 (electronic). LCCN QA76.6 .A336 2000. URL http://link.springer.com/chapter/10.1007/978-3-642-57172-5_5/. Papers from an International Workshop on Modern Software Tools for Scientific Computing (SciTools'98), Oslo, Norway, September 14–16, 1998.

Acebron:2007:NPA

- [AS07] Juan A. Acebrón and Renato Spigler. A new probabilistic approach to the domain decomposition method. In Widlund and Keyes [WK07], pages 473–480. CODEN LNCSA6. ISBN 3-540-34468-3 (print), 3-540-34469-1 (e-book). ISSN 1439-7358 (print), 2197-7100 (electronic). LCCN QA402.2 .I55 2005. URL http://link.springer.com/content/pdf/10.1007/978-3-540-34469-8_59. Proceedings of the *Sixteenth International Conference on Domain Decomposition Methods*, New York City, January 11–15, 2005.

Antonietti:2009:DDP

- [AS09] Paola F. Antonietti and Endre Süli. Domain decomposition preconditioning for discontinuous Galerkin approximations of convection-diffusion problems. In Bercovier et al.

[BGKW09], pages 259–266. CODEN LNCSA6. ISBN 3-642-02676-1 (print), 3-642-02677-X (e-book). ISSN 1439-7358 (print), 2197-7100 (electronic). LCCN QA402.2 .I584 2009. URL http://link.springer.com/content/pdf/10.1007/978-3-642-02677-5_28.

Andreev:2012:STA

[AS12] Roman Andreev and Christoph Schwab. Sparse tensor approximation of parametric eigenvalue problems. In Graham et al. [GHLS12], pages 203–241. CODEN LNCSA6. ISBN 3-642-22060-6 (print), 3-642-22061-4 (e-book). ISSN 1439-7358 (print), 2197-7100 (electronic). LCCN QA297 .N844 2012. URL http://link.springer.com/content/pdf/10.1007/978-3-642-22061-6_7. Ten invited expository articles from the 91st LMS Durham Symposium on *Numerical Analysis of Multiscale Problems*, Durham, UK, 5–15 July 2010.

Alekseyev:2006:USA

[ASB⁺06] A. V. Alekseyev, R. M. Shagaliev, I. M. Belyakov, A. V. Gichuk, and V. V. Evdokimov. Use of the space adaptive algorithm to solve 2D problems of photon transport and interaction with medium. In Graziani [Gra06], pages 235–254. CODEN LNCSA6. ISBN 3-540-28122-3 (print), 3-540-28125-8 (e-book). ISSN 1439-7358 (print), 2197-7100 (electronic). LCCN MLCM 2006/40189 (Q); QC793.3.T7 C66 2006. URL http://link.springer.com/content/pdf/10.1007/3-540-28125-8_11.

Abgrall:1999:HOA

[ASFB99] Rémi Abgrall, Thomas Sonar, Oliver Friedrich, and Germain Billet. High order approximations for compressible fluid dynamics on unstructured and Cartesian meshes. In *High order methods for computational physics* [BD99], pages 1–68 (?). CODEN LNCSA6. ISBN 3-540-65893-9 (paperback). ISSN 1439-7358 (print), 2197-7100 (electronic). LCCN QA911 .H46 1999.

Assous:2009:PCT

[ASS09] F. Assous, J. Segré, and E. Sonnendrücker. Parallelization of a constrained three-dimensional Maxwell solver. In Bercovier et al. [BGKW09], pages 347–354. CODEN LNCSA6. ISBN 3-642-02676-1 (print), 3-642-02677-X (e-book). ISSN 1439-7358 (print), 2197-7100 (electronic). LCCN QA402.2 .I584

2009. URL http://link.springer.com/content/pdf/10.1007/978-3-642-02677-5_39.

Alam:2009:AAR

- [ASW09] Firoz Alam, Aleksandar Subic, and Simon Watkins. Aerodynamics of an Australian rules foot ball and rugby ball. In Peters [Pet09], pages 103–127. CODEN LNCSA6. ISBN 3-642-04465-4 (print), 3-642-04466-2 (e-book). ISSN 1439-7358 (print), 2197-7100 (electronic). LCCN QA911 .C6234 2009. URL http://link.springer.com/content/pdf/10.1007/978-3-642-04466-3_5.

Achdou:2008:BVP

- [AT08] Yves Achdou and Nicoletta Tchou. Boundary value problems in ramified domains with fractal boundaries. In Langer et al. [LDK⁺08], pages 419–426. CODEN LNCSA6. ISBN 3-540-75198-X (print), 3-540-75199-8 (e-book). ISSN 1439-7358 (print), 2197-7100 (electronic). LCCN QA402.2 .I55 2006. URL http://link.springer.com/content/pdf/10.1007/978-3-540-75199-1_53. 17th International Conference on Domain Decomposition Methods held at St. Wolfgang/Strobl, Austria, July 3–7, 2006.

Atkins:2000:STR

- [Atk00] Harold L. Atkins. Steps toward a robust high-order simulation tool for aerospace applications. In Cockburn et al. [CKS00b], pages 53–61. CODEN LNCSA6. ISBN 3-540-66787-3, 3-642-64098-2 (print), 3-642-59721-1 (e-book). ISSN 1439-7358 (print), 2197-7100 (electronic). LCCN TA347.F5 D57 2000. URL http://link.springer.com/chapter/10.1007/978-3-642-59721-3_2/. Papers from the first international symposium on DGM Newport, Rhode Island, USA, May 24–26, 1999.

Abbate:2010:HNS

- [ATK10] G. Abbate, B. J. Thijsse, and C. R. Kleijn. Hybrid Navier–Stokes/DSMC simulations of gas flows with rarefied-continuum transitions. In Koren and Vuik [KV10], pages 403–435. CODEN LNCSA6. ISBN 3-642-03343-1 (print), 3-642-03344-X (e-book). ISSN 1439-7358 (print), 2197-7100 (electronic). LCCN Q183.9 .A35 2010. URL http://link.springer.com/content/pdf/10.1007/978-3-642-03344-5_14.

Asakawa:2011:AHU

- [AYM11] Hiroya Asakawa, Masashi Yamakawa, and Kenichi Matsuno. Applications on hybrid unstructured moving grid method for three-dimensional compressible flows. In Tromeur-Dervout et al. [TDBEE11], pages 119–126. CODEN LNCSA6. ISBN 3-642-14437-3 (print), 3-642-14438-1 (e-book). ISSN 1439-7358 (print), 2197-7100 (electronic). LCCN ???? URL http://link.springer.com/content/pdf/10.1007/978-3-642-14438-7_12. Proceedings of the twentieth meeting, Parallel CFD 2008, held May 19–22, 2008 in Lyon, France.

Ayuso:2011:SUC

- [AZ11] Blanca Ayuso and Ludmil T. Zikatanov. A simple uniformly convergent iterative method for the non-symmetric incomplete interior penalty discontinuous Galerkin discretization. In Huang et al. [HKWX11], pages 335–342. CODEN LNCSA6. ISBN 3-642-11303-6 (print), 3-642-11304-4 (e-book). ISSN 1439-7358 (print), 2197-7100 (electronic). LCCN QA402.2 .I58 2011. URL http://link.springer.com/content/pdf/10.1007/978-3-642-11304-8_38. Papers presented at the 19th International Conference on Domain Decomposition, DD19, hosted by the School of Mathematics and Computational Science of the Xiangtan University and the Hunan Key Laboratory for Computation and Simulation in Science and Engineering and held in Zhanjiajie, China, August 17–22, 2009.

Belinskaya-Abnizova:2001:SSA

- [BA01] I. Belinskaya-Abnizova. Statistical simulation approach to inverse geoelectric problem. In van Rienen et al. [vRGH01], pages 121–128. CODEN LNCSA6. ISBN 3-540-42173-4 (softcover), 3-642-56470-4 (e-book). ISSN 1439-7358 (print), 2197-7100 (electronic). LCCN TK5 .S35 2001. URL http://link.springer.com/content/pdf/10.1007/978-3-642-56470-3_12. Selected contributions presented at the 3rd International Workshop on Scientific Computing in Electrical Engineering.

Bieri:2011:CRS

- [BA11] Marcel Bieri and Roman Andreev. Convergence rates of sparse tensor GPC FEM for elliptic sPDEs. In Hesthaven and Rønquist [HR11], pages 101–110. CODEN

LNCSA6. ISBN 3-642-15336-4 (print), 3-642-15337-2 (e-book). ISSN 1439-7358 (print), 2197-7100 (electronic). LCCN ????. URL http://link.springer.com/content/pdf/10.1007/978-3-642-15337-2_7.

Burbeau-Augoula:2014:HFD

- [BA14] Anne Burbeau-Augoula. A hybrid finite difference–WENO scheme for large eddy simulation of compressible flows. In Abgrall et al. [ABC⁺14], pages 15–36. ISBN 3-319-05454-6 (paperback), 3-319-05455-4 (e-book). ISSN 1439-7358 (print), 2197-7100 (electronic). LCCN QA374 .A384 2014. URL http://link.springer.com/chapter/10.1007/978-3-319-05455-1_2/.

Badea:2008:ASM

- [Bad08] Lori Badea. An additive Schwarz method for the constrained minimization of functionals in reflexive Banach spaces. In Langer et al. [LDK⁺08], pages 427–434. CODEN LNCSA6. ISBN 3-540-75198-X (print), 3-540-75199-8 (e-book). ISSN 1439-7358 (print), 2197-7100 (electronic). LCCN QA402.2 .I55 2006. URL http://link.springer.com/content/pdf/10.1007/978-3-540-75199-1_54. 17th International Conference on Domain Decomposition Methods held at St. Wolfgang/Strobl, Austria, July 3–7, 2006.

Borzsonyi:2003:DFN

- [BAF03] Tamas Borzsonyi, Silvere Akamatsu, and Gabriel Faivre. Dynamics of a faceted nematic–smectic B front in thin-sample directional solidification. In Emmerich et al. [ENS03], page ?? CODEN LNCSA6. ISBN 3-540-40367-1. ISSN 1439-7358 (print), 2197-7100 (electronic). LCCN QC173.4.I57 I57 2003. URL <http://www.loc.gov/catdir/enhancements/fy0818/2003060231-d.html>. Papers from the workshop on “Computational Physics of Transport and Interfacial Dynamics”, Dresden, February 25–March 8, 2002.

Buehler:2004:SEF

- [BAG04] Markus J. Buehler, Farid F. Abraham, and Huajian Gao. Stress and energy flow field near a rapidly propagating mode I crack. In Attinger and Koumoutsakos [AK04], pages 143–156. CODEN LNCSA6. ISBN 3-540-21180-2 (print), 3-642-18756-0 (e-book). ISSN 1439-7358 (print), 2197-7100 (electronic). LCCN TA342 .M85 2004. URL <http://link.springer.com>.

com/content/pdf/10.1007/978-3-642-18756-8_10. Proceedings of a Summer Program in Multi-Scale Modelling and Simulation held in Lugano, Switzerland, between August 4th and 30th, 2003.

Bal:2005:CSP

- [Bal05] Guillaume Bal. On the convergence and the stability of the Parareal algorithm to solve partial differential equations. In Kornhuber et al. [KHP⁺05], pages 425–432. CODEN LNCSA6. ISBN 3-540-22523-4 (print), 3-540-26825-1 (e-book). ISSN 1439-7358 (print), 2197-7100 (electronic). LCCN QA402.2 .I55 2003. URL http://link.springer.com/content/pdf/10.1007/3-540-26825-1_43. Papers from the 15th International Conference on Domain Decomposition, Freie Universität Berlin (FU), Berlin, Germany, July 21–25, 2003.

Bal:2006:TAP

- [Bal06] Guillaume Bal. Transport approximations in partially diffusive media. In Graziani [Gra06], pages 373–400. CODEN LNCSA6. ISBN 3-540-28122-3 (print), 3-540-28125-8 (e-book). ISSN 1439-7358 (print), 2197-7100 (electronic). LCCN MLCM 2006/40189 (Q); QC793.3.T7 C66 2006. URL http://link.springer.com/content/pdf/10.1007/3-540-28125-8_17.

Bansch:2003:CSC

- [Bän03] Eberhard Bänsch, editor. *Challenges in Scientific Computing — CISC 2002: Proceedings of the Conference Challenges in Scientific Computing, Berlin, October 2–5, 2002*, volume 35 of *Lecture Notes in Computational Science and Engineering*. Springer-Verlag Inc., New York, NY, USA, 2003. CODEN LNCSA6. ISBN 3-642-62406-5 (print), 3-642-19014-6 (e-book). ISSN 1439-7358 (print), 2197-7100 (electronic). LCCN ????. URL <http://link.springer.com/book/10.1007/978-3-642-19014-8>; <http://www.springerlink.com/content/978-3-642-19014-8>.

Banas:2005:MPA

- [Ban05] Krzysztof Banaś. A model for parallel adaptive finite element software. In Kornhuber et al. [KHP⁺05], pages 159–166. CODEN LNCSA6. ISBN 3-540-22523-4 (print), 3-540-26825-1 (e-book). ISSN 1439-7358 (print), 2197-7100 (electronic). LCCN

QA402.2 .I55 2003. URL http://link.springer.com/content/pdf/10.1007/3-540-26825-1_12. Papers from the 15th International Conference on Domain Decomposition, Freie Universität Berlin (FU), Berlin, Germany, July 21–25, 2003.

Bank:2007:DDS

- [Ban07] Randolph E. Bank. A domain decomposition solver for a parallel adaptive meshing paradigm. In Widlund and Keyes [WK07], pages 3–14. CODEN LNCSA6. ISBN 3-540-34468-3 (print), 3-540-34469-1 (e-book). ISSN 1439-7358 (print), 2197-7100 (electronic). LCCN QA402.2 .I55 2005. URL http://link.springer.com/content/pdf/10.1007/978-3-540-34469-8_1. Proceedings of the *Sixteenth International Conference on Domain Decomposition Methods*, New York City, January 11–15, 2005.

Bank:2013:DDM

- [Ban13] Randolph Bank, editor. *Domain decomposition methods in science and engineering XX*, volume 91 of *Lecture Notes in Computational Science and Engineering*. Springer-Verlag Inc., New York, NY, USA, 2013. ISBN 3-642-35274-X (hardcover), 3-642-35275-8 (e-book). ISSN 1439-7358 (print), 2197-7100 (electronic). xix + 686 pp. LCCN QA402.2 .I58 2011.

Barth:1999:NMG

- [Bar99] Timothy J. Barth. Numerical methods for gasdynamic systems on unstructured meshes. In Kröner et al. [KOR99], pages 195–285. CODEN LNCSA6. ISBN 3-540-65081-4 (print), 3-642-58535-3 (e-book). ISSN 1439-7358 (print), 2197-7100 (electronic). LCCN QA901.I525 1997. URL http://link.springer.com/chapter/10.1007/978-3-642-58535-7_5/.

Barth:2000:SDG

- [Bar00] Timothy J. Barth. Simplified discontinuous Galerkin methods for systems of conservation laws with convex extension. In Cockburn et al. [CKS00b], pages 63–75. CODEN LNCSA6. ISBN 3-540-66787-3, 3-642-64098-2 (print), 3-642-59721-1 (e-book). ISSN 1439-7358 (print), 2197-7100 (electronic). LCCN TA347.F5 D57 2000. URL http://link.springer.com/chapter/10.1007/978-3-642-59721-3_3/. Papers from the first international symposium on DGM Newport, Rhode Island, USA, May 24–26, 1999.

Bartel:2001:MRM

- [Bar01] A. Bartel. Multirate ROW methods of mixed type for circuit simulation. In van Rienen et al. [vRGH01], pages 241–249. CODEN LNCSA6. ISBN 3-540-42173-4 (soft-cover), 3-642-56470-4 (e-book). ISSN 1439-7358 (print), 2197-7100 (electronic). LCCN TK5 .S35 2001. URL http://link.springer.com/content/pdf/10.1007/978-3-642-56470-3_24. Selected contributions presented at the 3rd International Workshop on Scientific Computing in Electrical Engineering.

Barwolff:2002:AHO

- [Bär02] G Bärwolff. Application of higher order BDF discretization of the Boussinesq equation and the heat transport equation. In Breuer et al. [BDZ02], pages 245–252. CODEN LNCSA6. ISBN 3-540-42946-8 (print), 3-642-55919-0 (e-book). ISSN 1439-7358 (print), 2197-7100 (electronic). LCCN Q183.9 .I58 2001. URL http://link.springer.com/content/pdf/10.1007/978-3-642-55919-8_27.

Barth:2005:PEE

- [Bar05] Timothy J. Barth. A posteriori error estimation and mesh adaptivity for finite volume and finite element methods. In Plewa et al. [PLW05], pages 183–202. CODEN LNCSA6. ISBN 3-540-21147-0 (print), 3-540-27039-6 (e-book). ISSN 1439-7358 (print), 2197-7100 (electronic). LCCN QA377 .C46 2003. URL http://link.springer.com/content/pdf/10.1007/3-540-27039-6_13.

Barboteu:2007:ACS

- [Bar07a] Mikaël Barboteu. An adapted coarse space for balancing domain decomposition methods in nonlinear elastodynamics. In Widlund and Keyes [WK07], pages 481–488. CODEN LNCSA6. ISBN 3-540-34468-3 (print), 3-540-34469-1 (e-book). ISSN 1439-7358 (print), 2197-7100 (electronic). LCCN QA402.2 .I55 2005. URL http://link.springer.com/content/pdf/10.1007/978-3-540-34469-8_60. Proceedings of the *Sixteenth International Conference on Domain Decomposition Methods*, New York City, January 11–15, 2005.

Barth:2007:STE

- [Bar07b] Timothy J. Barth. Space-time error representation and estimation in Navier–Stokes calculations. In Kassinos et al.

[KLIM07], pages 29–48. CODEN LNCSA6. ISBN 3-540-34233-8 (print), 3-540-34234-6 (e-book). ISSN 1439-7358 (print), 2197-7100 (electronic). LCCN TA357.5.T87 C66 2007. URL http://link.springer.com/content/pdf/10.1007/978-3-540-34234-2_3. Proceedings of the symposium on *Complex Effects in Large Eddy Simulation* held in Lemesos (Limassol), Cyprus, September 21–24, 2005.

Barth:2013:NIU

- [Bar13] Timothy Barth. Non-intrusive uncertainty propagation with error bounds for conservation laws containing discontinuities. In Bijl et al. [BLMS13], pages 1–57. ISBN 3-319-00884-6 (hardcover), 3-319-00885-4 (e-book). ISSN 1439-7358 (print), 2197-7100 (electronic). LCCN ???? URL http://link.springer.com/chapter/10.1007/978-3-319-00885-1_1/.

Bastian:2003:HOD

- [Bas03] Peter Bastian. Higher order discontinuous Galerkin methods for flow and transport in porous media. In Bänsch [Bän03], pages 1–22. CODEN LNCSA6. ISBN 3-642-62406-5 (print), 3-642-19014-6 (e-book). ISSN 1439-7358 (print), 2197-7100 (electronic). LCCN ???? URL http://link.springer.com/content/pdf/10.1007/978-3-642-19014-8_1.

Bause:2011:PSH

- [Bau11] Markus Bause. Performance of stabilized higher-order methods for nonstationary convection-diffusion-reaction equations. In Clavero et al. [CGL11], pages 11–19. CODEN LNCSA6. ISBN 3-642-19664-0 (print), 3-642-19665-9 (e-book). ISSN 1439-7358 (print), 2197-7100 (electronic). LCCN ???? URL http://link.springer.com/content/pdf/10.1007/978-3-642-19665-2_2. Selected papers from the proceedings of BAIL 2010 (Boundary and Interior Layers — Computational and Asymptotic Methods), held from 5 to 9 July 2010 at the University of Zaragoza, Spain.

Babuska:2002:MGF

- [BB02] I. Babuska and U. Banerjee. Meshless and generalized finite element methods: a survey of some major results. In Griebel and Schweitzer [GS02b], pages 1–20. CODEN LNCSA6. ISBN 3-540-43891-2 (print), 3-642-56103-9 (e-book). ISSN 1439-7358 (print), 2197-7100 (electronic). LCCN QA377 .M45

2003. URL http://link.springer.com/content/pdf/10.1007/978-3-642-56103-0_1. Proceedings of a workshop on Meshfree Methods for Partial Differential Equations, Institut für Angewandte Mathematik, Rheinische Friedrich-Wilhelms Universität Bonn, September 11–14, 2001.

Bartlett:2003:ROO

- [BB03] Roscoe A. Bartlett and Lorenz T. Biegler. rSQP++: an object-oriented framework for successive quadratic programming. In Biegler et al. [BGHvBW03a], pages 316–330. CODEN LNCSA6. ISBN 3-540-05045-0 (print), 3-642-55508-X (e-book). ISSN 1439-7358 (print), 2197-7100 (electronic). LCCN QA402.5 .L358 2003. URL http://link.springer.com/content/pdf/10.1007/978-3-642-55508-4_19.

Bihari:2006:HOF

- [BB06a] Barna L. Bihari and Peter N. Brown. High order finite volume nonlinear schemes for the Boltzmann transport equation. In Graziani [Gra06], pages 401–422. CODEN LNCSA6. ISBN 3-540-28122-3 (print), 3-540-28125-8 (e-book). ISSN 1439-7358 (print), 2197-7100 (electronic). LCCN MLCM 2006/40189 (Q); QC793.3.T7 C66 2006. URL http://link.springer.com/content/pdf/10.1007/3-540-28125-8_18.

Bischof:2006:MLD

- [BB06b] Christian H. Bischof and H. Martin Büucker. A macro language for derivative definition in ADiMat. In Büucker et al. [BCH⁺06], pages 181–188. CODEN LNCSA6. ISBN 3-540-28403-6 (print), 3-540-28438-9 (e-book). ISSN 1439-7358 (print), 2197-7100 (electronic). LCCN QA304 .I58 2006. URL http://link.springer.com/content/pdf/10.1007/3-540-28438-9_16. Proceedings of the Fourth International Conference on Automatic Differentiation, July 20–23, Chicago, Illinois.

Bischof:2006:TEB

- [BB06c] Christian H. Bischof and H. Martin Büucker. Transforming equation-based models in process engineering. In Büucker et al. [BCH⁺06], pages 189–198. CODEN LNCSA6. ISBN 3-540-28403-6 (print), 3-540-28438-9 (e-book). ISSN 1439-7358 (print), 2197-7100 (electronic). LCCN QA304 .I58 2006. URL http://link.springer.com/content/pdf/10.1007/3-540-28438-9_17. Proceedings of the Fourth Interna-

tional Conference on Automatic Differentiation, July 20–23, Chicago, Illinois.

Bell:2008:ADI

- [BB08] Bradley M. Bell and James V. Burke. Algorithmic differentiation of implicit functions and optimal values. In Bischof et al. [BBH⁺08], pages 67–77. CODEN LNCSA6. ISBN 3-540-68935-4 (print), 3-540-68942-7 (e-book). ISSN 1439-7358 (print), 2197-7100 (electronic). LCCN QA304 .I58 2008. URL http://link.springer.com/content/pdf/10.1007/978-3-540-68942-3_7.

Benzina:2013:FIH

- [BBB⁺13] Amal Benzina, Gerrit Buse, Daniel Butnaru, Alin Murarasu, Marc Treib, Vasco Varduhn, and Ralf-Peter Mundani. A framework for the interactive handling of high-dimensional simulation data in complex geometries. In Bader et al. [BBW13], pages 201–221. ISBN 3-642-38761-6, 3-642-38762-4 (e-book). ISSN 1439-7358 (print), 2197-7100 (electronic). LCCN ???? URL http://link.springer.com/chapter/10.1007/978-3-642-38762-3_10/.

Balin:2005:DDA

- [BBC05] Nolwenn Balin, Abderrahmane Bendali, and Francis Collino. Domain decomposition and additive Schwarz techniques in the solution of a TE model of the scattering by an electrically deep cavity. In Kornhuber et al. [KHP⁺05], pages 149–156. CODEN LNCSA6. ISBN 3-540-22523-4 (print), 3-540-26825-1 (e-book). ISSN 1439-7358 (print), 2197-7100 (electronic). LCCN QA402.2 .I55 2003. URL http://link.springer.com/content/pdf/10.1007/3-540-26825-1_11. Papers from the 15th International Conference on Domain Decomposition, Freie Universität Berlin (FU), Berlin, Germany, July 21–25, 2003.

Baker:2006:ISE

- [BBC06] Nathan A. Baker, Donald Bashford, and David A. Case. Implicit solvent electrostatics in biomolecular simulation. In Leimkuhler et al. [LCE⁺06], pages 263–295. CODEN LNCSA6. ISBN 3-540-25542-7 (print), 3-540-31618-3 (e-book). ISSN 1439-7358 (print), 2197-7100 (electronic). LCCN QP517.M3 N49 2006. URL http://link.springer.com/content/pdf/10.1007/3-540-31618-3_15. Papers from the

fourth edition of *Algorithms for Macromolecular Modelling*, Leicester, UK August 2004.

Bassi:2014:IEA

- [BBC⁺14a] F. Bassi, L. Botti, A. Colombo, A. Ghidoni, and S. Rebay. Implementation of an explicit algebraic Reynolds stress model in an implicit very high-order discontinuous Galerkin solver. In Azaïez et al. [AHE13], pages 111–123. ISBN 3-319-01600-8 (hardcover). ISSN 1439-7358 (print), 2197-7100 (electronic). LCCN ????. URL http://link.springer.com/chapter/10.1007/978-3-319-01601-6_8/.

Bassi:2014:INW

- [BBC⁺14b] F. Bassi, L. Botti, A. Colombo, A. Ghidoni, and S. Rebay. Investigation of near-wall grid spacing effect in high-order discontinuous Galerkin RANS computations of turbomachinery flows. In Azaïez et al. [AHE13], pages 125–134. ISBN 3-319-01600-8 (hardcover). ISSN 1439-7358 (print), 2197-7100 (electronic). LCCN ????. URL http://link.springer.com/chapter/10.1007/978-3-319-01601-6_9/.

Böttcher:2012:HT

- [BBCK12] Norbert Böttcher, Guido Blöcher, Mauro Cacace, and Olaf Kolditz. Heat transport. In Kolditz et al. [KGSW12], pages 89–105. CODEN LNCSA6. ISBN 3-642-27176-6 (print), 3-642-27177-4 (e-book). ISSN 1439-7358 (print), 2197-7100 (electronic). LCCN ????. URL http://link.springer.com/content/pdf/10.1007/978-3-642-27177-9_4.

Belomestny:2014:SSD

- [BBDS14] Denis Belomestny, Christian Bender, Fabian Dickmann, and Nikolaus Schweizer. Solving stochastic dynamic programs by convex optimization and simulation. In Dahlke et al. [DDG⁺14], pages 1–23. ISBN 3-319-08159-4. LCCN ????. URL http://link.springer.com/chapter/10.1007/978-3-319-08159-5_1/.

Bungartz:2010:PSF

- [BBGM10] H.-J. Bungartz, J. Benk, B. Gatzhammer, and M. Mehl. Partitioned simulation of fluid-structure interaction on Cartesian grids. In Bungartz et al. [BMS10], pages 255–284. CODEN LNCSA6. ISBN 3-642-14205-2 (print), 3-642-14206-0 (e-book). ISSN 1439-7358 (print), 2197-7100 (electronic). LCCN

TA357.5.F58 F586b 2010. URL http://link.springer.com/content/pdf/10.1007/978-3-642-14206-2_10. Selected contributions from the *First International Workshop on Computational Engineering — special topic Fluid-Structure Interactions* held in Herrsching, Germany, in October 2009.

Bischof:2008:AAD

- [BBH⁺08] Christian H. Bischof, H. Martin Bücker, Paul Hovland, Uwe Naumann, and Jean Utke, editors. *Advances in Automatic Differentiation*, volume 64 of *Lecture Notes in Computational Science and Engineering*. Springer-Verlag Inc., New York, NY, USA, 2008. CODEN LNCSA6. ISBN 3-540-68935-4 (print), 3-540-68942-7 (e-book). ISSN 1439-7358 (print), 2197-7100 (electronic). LCCN QA304 .I58 2008. URL <http://link.springer.com/book/10.1007/978-3-540-68942-3>; <http://www.springerlink.com/content/978-3-540-68942-3>.

Beck:2015:EHO

- [BBH⁺15] A. Beck, T. Bolemann, T. Hitz, V. Mayer, and C.-D. Munz. Explicit high-order discontinuous Galerkin spectral element methods for LES and DNS. In Mehl et al. [MBS15], pages 281–296. ISBN 3-319-22996-6, 3-319-22997-4 (e-book). LCCN QA71-90; TA329. URL http://link.springer.com/chapter/10.1007/978-3-319-22997-3_17/.

Brannick:2007:ASA

- [BBK⁺07] James Brannick, Marian Brezina, David Keyes, Oren Livne, and Irene Livshits. Adaptive smoothed aggregation in lattice QCD. In Widlund and Keyes [WK07], pages 505–512. CODEN LNCSA6. ISBN 3-540-34468-3 (print), 3-540-34469-1 (e-book). ISSN 1439-7358 (print), 2197-7100 (electronic). LCCN QA402.2 .I55 2005. URL http://link.springer.com/content/pdf/10.1007/978-3-540-34469-8_63. Proceedings of the *Sixteenth International Conference on Domain Decomposition Methods*, New York City, January 11–15, 2005.

Brenk:2006:FSI

- [BBM06] Markus Brenk, Hans-Joachim Bungartz, and Miriam Mehl. Fluid-structure interaction on Cartesian grids: Flow simulation and coupling environment. In Bungartz and Schäfer [BS06], pages 233–269. CODEN LNCSA6. ISBN 3-540-34595-7 (print), 3-540-34596-5 (e-book). ISSN 1439-7358

(print), 2197-7100 (electronic). LCCN TA357.5.F58 F586 200. URL http://link.springer.com/content/pdf/10.1007/3-540-34596-5_10. Proceedings of a workshop on fluid-structure interactions held in Hohenwart, Germany, in October 2005.

Bauer:2012:MT

- [BBM⁺12] Sebastian Bauer, Christof Beyer, Chris McDermott, Georg Kosakowski, and Stefanie Krug. Mass transport. In Kolditz et al. [KGSW12], pages 201–231. CODEN LNCSA6. ISBN 3-642-27176-6 (print), 3-642-27177-4 (e-book). ISSN 1439-7358 (print), 2197-7100 (electronic). LCCN ???? URL http://link.springer.com/content/pdf/10.1007/978-3-642-27177-9_10.

Bertoluzza:2005:NMG

- [BBMS05] S. Bertoluzza, F. Brezzi, L. D. Marini, and G. Sangalli. Non-matching grids and Lagrange multipliers. In Kornhuber et al. [KHP⁺05], pages 3–18. CODEN LNCSA6. ISBN 3-540-22523-4 (print), 3-540-26825-1 (e-book). ISSN 1439-7358 (print), 2197-7100 (electronic). LCCN QA402.2 .I55 2003. URL http://link.springer.com/content/pdf/10.1007/3-540-26825-1_1. Papers from the 15th International Conference on Domain Decomposition, Freie Universität Berlin (FU), Berlin, Germany, July 21–25, 2003.

Benk:2013:IBM

- [BBMU13] Janos Benk, Hans-Joachim Bungartz, Miriam Mehl, and Michael Ulbrich. Immersed boundary methods for fluid-structure interaction and shape optimization within an FEM-based PDE toolbox. In Bader et al. [BBW13], pages 25–56. ISBN 3-642-38761-6, 3-642-38762-4 (e-book). ISSN 1439-7358 (print), 2197-7100 (electronic). LCCN ???? URL http://link.springer.com/chapter/10.1007/978-3-642-38762-3_2/.

Boursier:2005:MUW

- [BBTD05] I. Boursier, A. Bourgeat, and D. Tromeur-Dervout. Modelling of an underground waste disposal site by upscaling and simulation with domain decomposition method. In Kornhuber et al. [KHP⁺05], pages 521–528. CODEN LNCSA6. ISBN 3-540-22523-4 (print), 3-540-26825-1 (e-book). ISSN 1439-7358 (print), 2197-7100 (electronic). LCCN QA402.2

.I55 2003. URL http://link.springer.com/content/pdf/10.1007/3-540-26825-1_54. Papers from the 15th International Conference on Domain Decomposition, Freie Universität Berlin (FU), Berlin, Germany, July 21–25, 2003.

Bader:2013:AC

- [BBW13] Michael Bader, Hans-Joachim Bungartz, and Tobias Weinzierl, editors. *Advanced Computing*, volume 93 of *Lecture Notes in Computational Science and Engineering*. Springer-Verlag Inc., New York, NY, USA, 2013. ISBN 3-642-38761-6, 3-642-38762-4 (e-book). ISSN 1439-7358 (print), 2197-7100 (electronic). 250 pp. LCCN ????

Belgacem:2002:NCH

- [BC02a] Faker Ben Belgacem and Lawrence K. Chilton. Non-conforming *hp* finite element methods for Stokes problems. In Pavarino and Toselli [PT02], pages 133–145. CODEN LNCSA6. ISBN 3-540-43413-5 (print), 3-642-56118-7 (e-book). ISSN 1439-7358 (print), 2197-7100 (electronic). LCCN QA402.2 .R43 2002. URL http://link.springer.com/content/pdf/10.1007/978-3-642-56118-4_8. Papers presented at the Workshop on Domain Decomposition held at ETH, Zurich, June 7–8, 2001.

Boztosun:2002:NSL

- [BC02b] Ismail Boztosun and Abdellatif Charafi. On the numerical solution of linear advection-diffusion equation using compactly supported radial basis functions. In Griebel and Schweitzer [GS02b], pages 63–73. CODEN LNCSA6. ISBN 3-540-43891-2 (print), 3-642-56103-9 (e-book). ISSN 1439-7358 (print), 2197-7100 (electronic). LCCN QA377 .M45 2003. URL http://link.springer.com/content/pdf/10.1007/978-3-642-56103-0_5. Proceedings of a workshop on Meshfree Methods for Partial Differential Equations, Institut für Angewandte Mathematik, Rheinische Friedrich-Wilhelms Universität Bonn, September 11–14, 2001.

Bucker:2006:BAD

- [BC06] H. Martin Bucker and George F. Corliss. A bibliography of automatic differentiation. In Bucker et al. [BCH⁺06], pages 321–322. CODEN LNCSA6. ISBN 3-540-28403-6 (print), 3-540-28438-9 (e-book). ISSN 1439-7358 (print), 2197-7100 (electronic). LCCN QA304 .I58 2006. URL <http://>

link.springer.com/content/pdf/10.1007/3-540-28438-9_28. Proceedings of the Fourth International Conference on Automatic Differentiation, July 20–23, Chicago, Illinois.

Barber:2009:SBA

- [BC09a] Sarah Barber and Matt Carré. Soccer Ball aerodynamics. In Peters [Pet09], pages 83–102. CODEN LNCSA6. ISBN 3-642-04465-4 (print), 3-642-04466-2 (e-book). ISSN 1439-7358 (print), 2197-7100 (electronic). LCCN QA911 .C6234 2009. URL http://link.springer.com/content/pdf/10.1007/978-3-642-04466-3_4.

Barker:2009:NFC

- [BC09b] Andrew T. Barker and Xiao-Chuan Cai. NKS for fully coupled fluid-structure interaction with application. In Bercovier et al. [BGKW09], pages 275–282. CODEN LNCSA6. ISBN 3-642-02676-1 (print), 3-642-02677-X (e-book). ISSN 1439-7358 (print), 2197-7100 (electronic). LCCN QA402.2 .I584 2009. URL http://link.springer.com/content/pdf/10.1007/978-3-642-02677-5_30.

Barker:2011:TLM

- [BC11] Andrew T. Barker and Xiao-Chuan Cai. Two-level methods for blood flow simulation. In Huang et al. [HKWX11], pages 141–148. CODEN LNCSA6. ISBN 3-642-11303-6 (print), 3-642-11304-4 (e-book). ISSN 1439-7358 (print), 2197-7100 (electronic). LCCN QA402.2 .I58 2011. URL http://link.springer.com/content/pdf/10.1007/978-3-642-11304-8_14. Papers presented at the 19th International Conference on Domain Decomposition, DD19, hosted by the School of Mathematics and Computational Science of the Xiangtan University and the Hunan Key Laboratory for Computation and Simulation in Science and Engineering and held in Zhanjiajie, China, August 17–22, 2009.

Blanc:2012:VRS

- [BC12] Xavier Blanc and Ronan Costaouec. Variance reduction in stochastic homogenization: The technique of antithetic variables. In Engquist et al. [ERT12], pages 47–70. CODEN LNCSA6. ISBN 3-642-21942-X (print), 3-642-21943-8 (e-book). ISSN 1439-7358 (print), 2197-7100 (electronic). LCCN ???? URL http://link.springer.com/content/pdf/10.1007/978-3-642-21943-6_3.

Bond:2006:MPS

- [BCDF06] Peter J. Bond, Jonathan Cuthbertson, Sundeep S. Deol, and Lucy R. Forrest. Membrane protein simulations: Modelling a complex environment. In Leimkuhler et al. [LCE⁺06], pages 3–20. CODEN LNCSA6. ISBN 3-540-25542-7 (print), 3-540-31618-3 (e-book). ISSN 1439-7358 (print), 2197-7100 (electronic). LCCN QP517.M3 N49 2006. URL http://link.springer.com/content/pdf/10.1007/3-540-31618-3_1. Papers from the fourth edition of *Algorithms for Macromolecular Modelling*, Leicester, UK August 2004.

Barth:2002:MMM

- [BCH02] Timothy J. Barth, Tony Chan, and Robert Haimes, editors. *Multiscale and Multiresolution Methods: Theory and Applications*, volume 20 of *Lecture Notes in Computational Science and Engineering*. Springer-Verlag Inc., New York, NY, USA, 2002. CODEN LNCSA6. ISBN 3-540-42420-2 (print), 3-642-56205-1 (e-book). ISSN 1439-7358 (print), 2197-7100 (electronic). LCCN QA403.3 .M85 2002. URL <http://link.springer.com/book/10.1007/978-3-642-56205-1>; <http://www.springerlink.com/content/978-3-642-56205-1>. Papers from the Yosemite Educational Symposium (YES), Yosemite valley, California, Fall 2000.

Bucker:2006:ADA

- [BCH⁺06] Martin Bucker, George Corliss, Paul Hovland, Uwe Naumann, and Boyana Norris, editors. *Automatic Differentiation: Applications, Theory, and Implementations*, volume 50 of *Lecture Notes in Computational Science and Engineering*. Springer-Verlag Inc., New York, NY, USA, 2006. CODEN LNCSA6. ISBN 3-540-28403-6 (print), 3-540-28438-9 (e-book). ISSN 1439-7358 (print), 2197-7100 (electronic). LCCN QA304 .I58 2006. URL <http://link.springer.com/book/10.1007/3-540-28438-9>. Proceedings of the Fourth International Conference on Automatic Differentiation, July 20–23, Chicago, Illinois.

Bruno:2000:PEH

- [BCKP00] Greg Bruno, Andrew A. Chien, Mason J. Katz, and Philip M. Papadopoulos. Performance enhancements for HPVM in multi-network and heterogeneous hardware. In Engquist

et al. [EJHS00], pages 17–32. CODEN LNCSA6. ISBN 3-540-67264-8 (print), 3-642-57313-4 (e-book). ISSN 1439-7358 (print), 2197-7100 (electronic). LCCN QA76.9.C65 S535 2000. URL http://link.springer.com/chapter/10.1007/978-3-642-57313-2_2/.

Brannick:2013:AMM

- [BCKZ13] James Brannick, Yao Chen, Johannes Kraus, and Ludmil Zikatanov. An algebraic multigrid method based on matching in graphs. In Bank [Ban13], pages 143–150. ISBN 3-642-35274-X (hardcover), 3-642-35275-8 (e-book). ISSN 1439-7358 (print), 2197-7100 (electronic). LCCN QA402.2 .I58 2011. URL http://link.springer.com/chapter/10.1007/978-3-642-35275-1_15/.

Becker:2015:RLF

- [BCL15] Roland Becker, Daniela Capatina, and Robert Luce. Robust local flux reconstruction for various finite element methods. In Abdulle et al. [ADK⁺15], pages 65–73. ISBN 3-319-10704-6 (paperback), 3-319-10705-4 (e-book). ISSN 1439-7358 (print), 2197-7100 (electronic). LCCN QA76.9.M35 .E976 2015. URL http://link.springer.com/chapter/10.1007/978-3-319-10705-9_6/.

Babuska:2002:MMN

- [BCM02] Ivo Babuška, Philippe G. Ciarlet, and Tetsuhiko Miyoshi, editors. *Mathematical Modeling and Numerical Simulation in Continuum Mechanics: Proceedings of the International Symposium on Mathematical Modeling and Numerical Simulation in Continuum Mechanics, September 29–October 3, 2000 Yamaguchi, Japan*, volume 19 of *Lecture Notes in Computational Science and Engineering*. Springer-Verlag Inc., New York, NY, USA, 2002. CODEN LNCSA6. ISBN 3-540-42399-0 (print), 3-642-56288-4 (e-book). ISSN 1439-7358 (print), 2197-7100 (electronic). LCCN QA808.2 .I59 2000. URL <http://link.springer.com/book/10.1007/978-3-642-56288-4>; <http://www.springerlink.com/content/978-3-642-56288-4>.

Birdwell:2004:DTD

- [BCT⁺04] J. Douglas Birdwell, John Chiasson, Zhong Tang, Chaouki Abdallah, and Majeed M. Hayat. Dynamic time delay models for load balancing. Part I: Deterministic models. In Niculescu

and Gu [NG04], pages 355–370. CODEN LNCSA6. ISBN 3-540-20890-9 (print), 3-642-18482-0 (e-book). ISSN 1439-7358 (print), 2197-7100 (electronic). LCCN TJ213 .A253 2004. URL http://link.springer.com/content/pdf/10.1007/978-3-642-18482-6_26. Most of the chapters are based on the materials presented in the CNRS-NSF Workshop *Advances in Time-Delay Systems* held in Paris in January 22–24, 2003.

Bacuta:2013:EOA

- [BCX13] Constantin Bacuta, Long Chen, and Jinchao Xu. Equidistribution and optimal approximation class. In Bank [Ban13], pages 3–14. ISBN 3-642-35274-X (hardcover), 3-642-35275-8 (e-book). ISSN 1439-7358 (print), 2197-7100 (electronic). LCCN QA402.2 .I58 2011. URL http://link.springer.com/chapter/10.1007/978-3-642-35275-1_1/.

Bungartz:1998:SGR

- [BD98] Hans-Joachim Bungartz and Thomas Dornseifer. Sparse grids: Recent developments for elliptic partial differential equations. In Hackbusch and Wittum [HW98], pages 45–70. CODEN LNCSA6. ISBN 3-540-63133-X (softcover), 3-642-58734-8 (e-book). ISSN 1439-7358 (print), 2197-7100 (electronic). LCCN QA377 .E94 1996. URL http://link.springer.com/chapter/10.1007/978-3-642-58734-4_3/.

Barth:1999:HOM

- [BD99] Timothy J. Barth and Herman Deconinck. *High order methods for computational physics*, volume 9 of *Lecture Notes in Computational Science and Engineering*. Springer-Verlag Inc., New York, NY, USA, 1999. CODEN LNCSA6. ISBN 3-540-65893-9 (paperback). ISSN 1439-7358 (print), 2197-7100 (electronic). vi + 582 pp. LCCN QA911 .H46 1999.

Benzi:2000:ASC

- [BD00] Michele Benzi and Michael DeLong. Approximate Schur complement multilevel methods for general sparse systems. In Dick et al. [DRV00], pages 52–58. CODEN LNCSA6. ISBN 3-540-67157-9 (print), 3-642-58312-1 (e-book). ISSN 1439-7358 (print), 2197-7100 (electronic). LCCN QA377 .E94 1999. URL http://link.springer.com/chapter/10.1007/978-3-642-58312-4_6/.

Barth:2003:EEA

- [BD03] Timothy J. Barth and H. Deconinck, editors. *Error estimation and adaptive discretization methods in computational fluid dynamics*, volume 25 of *Lecture Notes in Computational Science and Engineering*. Springer-Verlag Inc., New York, NY, USA, 2003. CODEN LNCSA6. ISBN 3-540-43758-4. ISSN 1439-7358 (print), 2197-7100 (electronic). 344 pp. LCCN TA357 .E78 2003. URL <http://www.loc.gov/catdir/enhancements/fy0815/2002030472-d.html>; <http://www.loc.gov/catdir/toc/fy034/2002030472.html>.

BaniHani:2007:GAM

- [BD07] Suleiman BaniHani and Suvranu De. Genetic algorithms for meshfree numerical integration. In Griebel and Schweitzer [GS07b], pages 17–40. CODEN LNCSA6. ISBN 3-540-46214-7 (print), 3-540-46222-8 (e-book). ISSN 1439-7358 (print), 2197-7100 (electronic). LCCN QA377 .M45 2005. URL http://link.springer.com/content/pdf/10.1007/978-3-540-46222-4_2. Third international workshop on Meshfree Methods for Partial Differential Equations held from September 12 to September 15, 2005 in Bonn, Germany.

Benzi:2009:PTD

- [BD09] John Benzi and M. Damodaran. Parallel three dimensional direct simulation Monte Carlo for simulating micro flows. In Tuncer et al. [TGEM09], pages 91–98. CODEN LNCSA6. ISBN 3-540-92743-3 (print), 3-540-92744-1 (e-book). ISSN 1439-7358 (print), 2197-7100 (electronic). LCCN ???? URL http://link.springer.com/content/pdf/10.1007/978-3-540-92744-0_11. Parallel CFD 2007 was held in Antalya, Turkey, from May 21 to 24, 2007.

Bastian:2005:TUF

- [BDE⁺05] Peter Bastian, Mark Droske, Christian Engwer, Robert Klöforn, and Thimo Neubauer. Towards a unified framework for scientific computing. In Kornhuber et al. [KHP⁺05], pages 167–174. CODEN LNCSA6. ISBN 3-540-22523-4 (print), 3-540-26825-1 (e-book). ISSN 1439-7358 (print), 2197-7100 (electronic). LCCN QA402.2 .I55 2003. URL http://link.springer.com/content/pdf/10.1007/3-540-26825-1_13. Papers from the 15th International Conference on Do-

main Decomposition, Freie Universität Berlin (FU), Berlin, Germany, July 21–25, 2003.

Binder:2004:STP

- [BDH⁺04] Kurt Binder, Subir K. Das, Jürgen Horbach, Marcus Müller, Richard Vink, and Peter Virnau. Simulation of transport in partially miscible binary fluids: Combination of semigrand-canonical Monte Carlo and molecular dynamics methods. In Attinger and Koumoutsakos [AK04], pages 169–185. CODEN LNCSA6. ISBN 3-540-21180-2 (print), 3-642-18756-0 (e-book). ISSN 1439-7358 (print), 2197-7100 (electronic). LCCN TA342 .M85 2004. URL http://link.springer.com/content/pdf/10.1007/978-3-642-18756-8_12. Proceedings of a Summer Program in Multi-Scale Modelling and Simulation held in Lugano, Switzerland, between August 4th and 30th, 2003.

Brown:2000:GWR

- [BDK⁺00] Maxine D. Brown, Tom DeFanti, Carl Kesselman, Jesper Ooppelstrup, Thierry Priol, and Karl-Ejnar Sjodin. The grid: What's really going on? In Engquist et al. [EJHS00], pages 254–270. CODEN LNCSA6. ISBN 3-540-67264-8 (print), 3-642-57313-4 (e-book). ISSN 1439-7358 (print), 2197-7100 (electronic). LCCN QA76.9.C65 S535 2000. URL http://link.springer.com/chapter/10.1007/978-3-642-57313-2_25/.

Belkoura:2004:IIL

- [BDOR04] Lotfi Belkoura, Michel Dambrine, Yuri Orlov, and Jean-Pierre Richard. Identifiability and identification of linear systems with delays. In Niculescu and Gu [NG04], pages 123–135. CODEN LNCSA6. ISBN 3-540-20890-9 (print), 3-642-18482-0 (e-book). ISSN 1439-7358 (print), 2197-7100 (electronic). LCCN TJ213 .A253 2004. URL http://link.springer.com/content/pdf/10.1007/978-3-642-18482-6_9. Most of the chapters are based on the materials presented in the CNRS-NSF Workshop *Advances in Time-Delay Systems* held in Paris in January 22–24, 2003.

Bastiaans:2007:APT

- [BdS07] Rob J. M. Bastiaans and Joost A. M. de Swart. Analysis of premixed turbulent spherical flame kernels. In Kassinos et al. [KLIM07], pages 371–383. CODEN LNCSA6. ISBN

3-540-34233-8 (print), 3-540-34234-6 (e-book). ISSN 1439-7358 (print), 2197-7100 (electronic). LCCN TA357.5.T87 C66 2007. URL http://link.springer.com/content/pdf/10.1007/978-3-540-34234-2_26. Proceedings of the symposium on *Complex Effects in Large Eddy Simulation* held in Lemesos (Limassol), Cyprus, September 21–24, 2005.

Bouchala:2008:SBV

- [BDS08] Jirí Bouchala, Zdenek Dostál, and Marie Sadowská. Scalable BETI for variational inequalities. In Langer et al. [LDK⁺08], pages 167–174. CODEN LNCSA6. ISBN 3-540-75198-X (print), 3-540-75199-8 (e-book). ISSN 1439-7358 (print), 2197-7100 (electronic). LCCN QA402.2 .I55 2006. URL http://link.springer.com/content/pdf/10.1007/978-3-540-75199-1_16. 17th International Conference on Domain Decomposition Methods held at St. Wolfgang/Strobl, Austria, July 3–7, 2006.

Brenner:2015:PUM

- [BDyS15] Susanne C. Brenner, Christopher B. Davis, and Li yeng Sung. A partition of unity method for the obstacle problem of simply supported Kirchhoff plates. In Griebel and Schweitzer [GS14], pages 23–41. ISBN 3-319-06898-9. LCCN QA71 .G75 2015; QA377. URL http://link.springer.com/chapter/10.1007/978-3-319-06898-5_2/.

Bungartz:1999:HPS

- [BDZ99] Hans-Joachim Bungartz, Franz Durst, and Christoph Zenger, editors. *High Performance Scientific and Engineering Computing: Proceedings of the International FORTWIHR Conference on HPSEC, Munich, March 16–18, 1998*, volume 8 of *Lecture Notes in Computational Science and Engineering*. Springer-Verlag Inc., New York, NY, USA, 1999. CODEN LNCSA6. ISBN 3-540-65730-4 (print), 3-642-60155-3 (e-book). ISSN 1439-7358 (print), 2197-7100 (electronic). LCCN Q183.9.I58 1998. URL <http://link.springer.com/book/10.1007/978-3-642-60155-2>; <http://www.springerlink.com/content/978-3-642-60155-2>.

Breuer:2002:HPS

- [BDZ02] Michael Breuer, Franz Durst, and Christoph Zenger, editors. *High Performance Scientific And Engineering Computing: Proceedings of the 3rd International FORTWIHR*

Conference on HPSEC, Erlangen, March 12–14, 2001, volume 21 of *Lecture Notes in Computational Science and Engineering*. Springer-Verlag Inc., New York, NY, USA, 2002. CODEN LNCSA6. ISBN 3-540-42946-8 (print), 3-642-55919-0 (e-book). ISSN 1439-7358 (print), 2197-7100 (electronic). LCCN Q183.9 .I58 2001. URL <http://link.springer.com/book/10.1007/978-3-642-55919-8>; <http://www.springerlink.com/content/978-3-642-55919-8>.

Bebendorf:2008:FM

[Beb08a] Mario Bebendorf. Front matter. In *Hierarchical Matrices: a Means to Efficiently Solve Elliptic Boundary Value Problems* [Beb08b], pages i–xvi. CODEN LNCSA6. ISBN 3-540-77146-8 (print), 3-540-77147-6 (e-book). ISSN 1439-7358 (print), 2197-7100 (electronic). LCCN QA188 .B42 2008. URL <http://link.springer.com/content/pdf/bfm:978-3-540-77147-0/1>. From a habilitation thesis that was accepted in January 2007 by the Faculty of Mathematics and Computer Science of the University of Leipzig.

Bebendorf:2008:HMM

[Beb08b] Mario Bebendorf. *Hierarchical Matrices: a Means to Efficiently Solve Elliptic Boundary Value Problems*, volume 63 of *Lecture Notes in Computational Science and Engineering*. Springer-Verlag Inc., New York, NY, USA, 2008. CODEN LNCSA6. ISBN 3-540-77146-8 (print), 3-540-77147-6 (e-book). ISSN 1439-7358 (print), 2197-7100 (electronic). xvi + 290 pp. LCCN QA188 .B42 2008. URL <http://link.springer.com/book/10.1007/978-3-540-77147-0>; <http://www.springerlink.com/content/978-3-540-77147-0>. From a habilitation thesis that was accepted in January 2007 by the Faculty of Mathematics and Computer Science of the University of Leipzig.

Brett:2014:PFM

[BED14] Charles Brett, Charles M. Elliott, and Andreas S. Dedner. Phase field methods for binary recovery. In Hoppe [Hop14], pages 25–63. ISBN 3-319-08024-5 (paperback), 3-319-08025-3 (e-book). ISSN 1439-7358 (print), 2197-7100 (electronic). LCCN QA71-90; QA377. URL http://link.springer.com/chapter/10.1007/978-3-319-08025-3_2/.

Betts:2003:IPA

- [BEFL03] John T. Betts, Samuel K. Eldersveld, Paul D. Frank, and John G. Lewis. An interior-point algorithm for large scale optimization. In Biegler et al. [BGHvBW03a], pages 184–198. CODEN LNCSA6. ISBN 3-540-05045-0 (print), 3-642-55508-X (e-book). ISSN 1439-7358 (print), 2197-7100 (electronic). LCCN QA402.5 .L358 2003. URL http://link.springer.com/content/pdf/10.1007/978-3-642-55508-4_11.

Behrens:2006:AAM

- [Beh06a] Jörn Behrens. *Adaptive Atmospheric Modeling: Key Techniques in Grid Generation, Data Structures, and Numerical Operations with Applications*, volume 54 of *Lecture Notes in Computational Science and Engineering*. Springer-Verlag Inc., New York, NY, USA, 2006. CODEN LNCSA6. ISBN 3-540-33382-7 (print), 3-540-33383-5 (e-book). ISSN 1439-7358 (print), 2197-7100 (electronic). xvii + 207 pp. LCCN ????. URL <http://link.springer.com/book/10.1007/3-540-33383-5>.

Behrens:2006:C

- [Beh06b] Jörn Behrens. Conclusions. In *Adaptive Atmospheric Modeling: Key Techniques in Grid Generation, Data Structures, and Numerical Operations with Applications* [Beh06a], pages 153–159. CODEN LNCSA6. ISBN 3-540-33382-7 (print), 3-540-33383-5 (e-book). ISSN 1439-7358 (print), 2197-7100 (electronic). LCCN ????. URL http://link.springer.com/content/pdf/10.1007/3-540-33383-5_9.

Behrens:2006:DSC

- [Beh06c] Jörn Behrens. Data structures for computational efficiency. In *Adaptive Atmospheric Modeling: Key Techniques in Grid Generation, Data Structures, and Numerical Operations with Applications* [Beh06a], pages 49–69. CODEN LNCSA6. ISBN 3-540-33382-7 (print), 3-540-33383-5 (e-book). ISSN 1439-7358 (print), 2197-7100 (electronic). LCCN ????. URL http://link.springer.com/content/pdf/10.1007/3-540-33383-5_4.

Behrens:2006:DCL

- [Beh06d] Jörn Behrens. Discretization of conservation laws. In *Adaptive Atmospheric Modeling: Key Techniques in Grid Generation, Data Structures, and Numerical Operations with Appli-*

cations [Beh06a], pages 91–121. CODEN LNCSA6. ISBN 3-540-33382-7 (print), 3-540-33383-5 (e-book). ISSN 1439-7358 (print), 2197-7100 (electronic). LCCN ????. URL http://link.springer.com/content/pdf/10.1007/3-540-33383-5_7.

Behrens:2006:EA

- [Beh06e] Jörn Behrens. Example applications. In *Adaptive Atmospheric Modeling: Key Techniques in Grid Generation, Data Structures, and Numerical Operations with Applications* [Beh06a], pages 123–151. CODEN LNCSA6. ISBN 3-540-33382-7 (print), 3-540-33383-5 (e-book). ISSN 1439-7358 (print), 2197-7100 (electronic). LCCN ????. URL http://link.springer.com/content/pdf/10.1007/3-540-33383-5_8.

Behrens:2006:FM

- [Beh06f] Jörn Behrens. Front matter. In *Adaptive Atmospheric Modeling: Key Techniques in Grid Generation, Data Structures, and Numerical Operations with Applications* [Beh06a], pages i–xviii. CODEN LNCSA6. ISBN 3-540-33382-7 (print), 3-540-33383-5 (e-book). ISSN 1439-7358 (print), 2197-7100 (electronic). LCCN ????. URL <http://link.springer.com/content/pdf/bfm:978-3-540-33383-8/1>.

Behrens:2006:GG

- [Beh06g] Jörn Behrens. Grid generation. In *Adaptive Atmospheric Modeling: Key Techniques in Grid Generation, Data Structures, and Numerical Operations with Applications* [Beh06a], pages 23–48. CODEN LNCSA6. ISBN 3-540-33382-7 (print), 3-540-33383-5 (e-book). ISSN 1439-7358 (print), 2197-7100 (electronic). LCCN ????. URL http://link.springer.com/content/pdf/10.1007/3-540-33383-5_3.

Behrens:2006:I

- [Beh06h] Jörn Behrens. Introduction. In *Adaptive Atmospheric Modeling: Key Techniques in Grid Generation, Data Structures, and Numerical Operations with Applications* [Beh06a], pages 1–7. CODEN LNCSA6. ISBN 3-540-33382-7 (print), 3-540-33383-5 (e-book). ISSN 1439-7358 (print), 2197-7100 (electronic). LCCN ????. URL http://link.springer.com/content/pdf/10.1007/3-540-33383-5_1.

Behrens:2006:IPI

- [Beh06i] Jörn Behrens. Issues in parallelization of irregularly structured problems. In *Adaptive Atmospheric Modeling: Key Techniques in Grid Generation, Data Structures, and Numerical Operations with Applications* [Beh06a], pages 71–78. CODEN LNCSA6. ISBN 3-540-33382-7 (print), 3-540-33383-5 (e-book). ISSN 1439-7358 (print), 2197-7100 (electronic). LCCN ????. URL http://link.springer.com/content/pdf/10.1007/3-540-33383-5_5.

Behrens:2006:MPI

- [Beh06j] Jörn Behrens. Metrics for parallelizing irregularly structured problems. In *Adaptive Atmospheric Modeling: Key Techniques in Grid Generation, Data Structures, and Numerical Operations with Applications* [Beh06a], pages 163–165. CODEN LNCSA6. ISBN 3-540-33382-7 (print), 3-540-33383-5 (e-book). ISSN 1439-7358 (print), 2197-7100 (electronic). LCCN ????. URL http://link.springer.com/content/pdf/10.1007/3-540-33383-5_11.

Behrens:2006:NTD

- [Beh06k] Jörn Behrens. Numerical treatment of differential operators on adaptive grids. In *Adaptive Atmospheric Modeling: Key Techniques in Grid Generation, Data Structures, and Numerical Operations with Applications* [Beh06a], pages 79–90. CODEN LNCSA6. ISBN 3-540-33382-7 (print), 3-540-33383-5 (e-book). ISSN 1439-7358 (print), 2197-7100 (electronic). LCCN ????. URL http://link.springer.com/content/pdf/10.1007/3-540-33383-5_6.

Behrens:2006:PAA

- [Beh06l] Jörn Behrens. Principles of adaptive atmospheric modeling. In *Adaptive Atmospheric Modeling: Key Techniques in Grid Generation, Data Structures, and Numerical Operations with Applications* [Beh06a], pages 9–22. CODEN LNCSA6. ISBN 3-540-33382-7 (print), 3-540-33383-5 (e-book). ISSN 1439-7358 (print), 2197-7100 (electronic). LCCN ????. URL http://link.springer.com/content/pdf/10.1007/3-540-33383-5_2.

Behrens:2006:RSW

- [Beh06m] Jörn Behrens. Rotating shallow water equations in spherical geometries. In *Adaptive Atmospheric Modeling: Key Tech-*

niques in Grid Generation, Data Structures, and Numerical Operations with Applications [Beh06a], pages 167–172. CODEN LNCSA6. ISBN 3-540-33382-7 (print), 3-540-33383-5 (e-book). ISSN 1439-7358 (print), 2197-7100 (electronic). LCCN ???? URL http://link.springer.com/content/pdf/10.1007/3-540-33383-5_12.

Behrens:2006:SBM

- [Beh06n] Jörn Behrens. Some basic mathematical tools. In *Adaptive Atmospheric Modeling: Key Techniques in Grid Generation, Data Structures, and Numerical Operations with Applications* [Beh06a], pages 161–162. CODEN LNCSA6. ISBN 3-540-33382-7 (print), 3-540-33383-5 (e-book). ISSN 1439-7358 (print), 2197-7100 (electronic). LCCN ???? URL http://link.springer.com/content/pdf/10.1007/3-540-33383-5_10.

Bell:2005:ALM

- [Bel05] John Bell. AMR for low Mach number reacting flow. In Plewa et al. [PLW05], pages 203–221. CODEN LNCSA6. ISBN 3-540-21147-0 (print), 3-540-27039-6 (e-book). ISSN 1439-7358 (print), 2197-7100 (electronic). LCCN QA377.C46 2003. URL http://link.springer.com/content/pdf/10.1007/3-540-27039-6_14.

Berendsen:1999:MDS

- [Ber99a] Herman J. C. Berendsen. Molecular dynamics simulations: The limits and beyond. In Deuffhard et al. [DHL⁺99], pages 3–36. CODEN LNCSA6. ISBN 3-540-63242-5 (print), 3-642-58360-1 (e-book). ISSN 1439-7358 (print), 2197-7100 (electronic). LCCN QP517.M65 I56 1999. URL http://link.springer.com/chapter/10.1007/978-3-642-58360-5_1/.

Berne:1999:MDS

- [Ber99b] Bruce J. Berne. Molecular dynamics in systems with multiple time scales: Reference system propagator algorithms. In Deuffhard et al. [DHL⁺99], pages 297–317. CODEN LNCSA6. ISBN 3-540-63242-5 (print), 3-642-58360-1 (e-book). ISSN 1439-7358 (print), 2197-7100 (electronic). LCCN QP517.M65 I56 1999. URL http://link.springer.com/chapter/10.1007/978-3-642-58360-5_16/.

Bern:2003:AMG

- [Ber03] Marshall Bern. Adaptive mesh generation. In Barth and Deconinck [BD03], page ?? CODEN LNCSA6. ISBN 3-540-43758-4. ISSN 1439-7358 (print), 2197-7100 (electronic). LCCN TA357 .E78 2003. URL <http://www.loc.gov/catdir/enhancements/fy0815/2002030472-d.html>; <http://www.loc.gov/catdir/toc/fy034/2002030472.html>.

Bernal:2007:RMM

- [Ber07] Francisco Bernal. An RBF meshless method for injection molding modelling. In Griebel and Schweitzer [GS07b], pages 41–56. CODEN LNCSA6. ISBN 3-540-46214-7 (print), 3-540-46222-8 (e-book). ISSN 1439-7358 (print), 2197-7100 (electronic). LCCN QA377 .M45 2005. URL http://link.springer.com/content/pdf/10.1007/978-3-540-46222-4_3. Third international workshop on Meshfree Methods for Partial Differential Equations held from September 12 to September 15, 2005 in Bonn, Germany.

Berninger:2009:NOD

- [Ber09] Heiko Berninger. Non-overlapping domain decomposition for the Richards equation via superposition operators. In Bercovier et al. [BGKW09], pages 169–176. CODEN LNCSA6. ISBN 3-642-02676-1 (print), 3-642-02677-X (e-book). ISSN 1439-7358 (print), 2197-7100 (electronic). LCCN QA402.2 .I584 2009. URL http://link.springer.com/content/pdf/10.1007/978-3-642-02677-5_17.

Bernard:2011:NPM

- [Ber11] J. M. L. Bernard. On novel properties of multimode boundary conditions in electromagnetism and their consequences. In Clavero et al. [CGL11], pages 29–35. CODEN LNCSA6. ISBN 3-642-19664-0 (print), 3-642-19665-9 (e-book). ISSN 1439-7358 (print), 2197-7100 (electronic). LCCN ????. URL http://link.springer.com/content/pdf/10.1007/978-3-642-19665-2_4. Selected papers from the proceedings of BAIL 2010 (Boundary and Interior Layers — Computational and Asymptotic Methods), held from 5 to 9 July 2010 at the University of Zaragoza, Spain.

Betts:1999:VLT

- [Bet99] J. T. Betts. Very low thrust trajectory optimization. In Bungartz et al. [BDZ99], pages 127–141. CODEN LNCSA6. ISBN 3-540-65730-4 (print), 3-642-60155-3 (e-book). ISSN 1439-7358 (print), 2197-7100 (electronic). LCCN Q183.9.I58 1998. URL http://link.springer.com/chapter/10.1007/978-3-642-60155-2_11/.

Bertoluzza:2002:WFC

- [BF02] Silvia Bertoluzza and Silvia Falletta. Wavelet/ FEM coupling by the mortar method. In Pavarino and Toselli [PT02], pages 119–132. CODEN LNCSA6. ISBN 3-540-43413-5 (print), 3-642-56118-7 (e-book). ISSN 1439-7358 (print), 2197-7100 (electronic). LCCN QA402.2 .R43 2002. URL http://link.springer.com/content/pdf/10.1007/978-3-642-56118-4_7. Papers presented at the Workshop on Domain Decomposition held at ETH, Zurich, June 7–8, 2001.

Benes:2009:NST

- [BFF09] L. Benes, J. Fürst, and Ph. Fraunié. Numerical simulation of the towing tank problem using high order schemes. In Hegarty et al. [HKOS09], pages 79–93. CODEN LNCSA6. ISBN 3-642-00604-3 (print), 3-642-00605-1 (e-book). ISSN 1439-7358 (print), 2197-7100 (electronic). LCCN ???? URL http://link.springer.com/content/pdf/10.1007/978-3-642-00605-0_5.

Borici:2005:QNA

- [BFJ+05] Artan Boriçi, Andreas Frommer, Bálint Joó, Anthony Kennedy, and Brian Pendleton, editors. *QCD and Numerical Analysis III: Proceedings of the Third International Workshop on Numerical Analysis and Lattice QCD, Edinburgh June–July 2003*, volume 47 of *Lecture Notes in Computational Science and Engineering*. Springer-Verlag Inc., New York, NY, USA, 2005. CODEN LNCSA6. ISBN 3-540-21257-4 (print), 3-540-28504-0 (e-book). ISSN 1439-7358 (print), 2197-7100 (electronic). LCCN QC793.3.Q35 I56 2003. URL <http://link.springer.com/book/10.1007/3-540-28504-0>.

Broeckhoven:2007:ISS

- [BFL07] Tim Broeckhoven, Martin Freitag, and Chris Lacor. Investigation of subgrid scale wrinkling models and their impact

on the artificially thickened flame model in large eddy simulations. In Kassinos et al. [KLIM07], pages 353–369. CODEN LNCSA6. ISBN 3-540-34233-8 (print), 3-540-34234-6 (e-book). ISSN 1439-7358 (print), 2197-7100 (electronic). LCCN TA357.5.T87 C66 2007. URL http://link.springer.com/content/pdf/10.1007/978-3-540-34234-2_25. Proceedings of the symposium on *Complex Effects in Large Eddy Simulation* held in Lemesos (Limassol), Cyprus, September 21–24, 2005.

Bungartz:1999:ETC

- [BFM⁺99] H.-J. Bungartz, A. Frank, F. Meier, T. Neunhoffer, and S. Schulte. Efficient treatment of complicated geometries and moving interfaces for CFD problems. In Bungartz et al. [BDZ99], pages 113–123. CODEN LNCSA6. ISBN 3-540-65730-4 (print), 3-642-60155-3 (e-book). ISSN 1439-7358 (print), 2197-7100 (electronic). LCCN Q183.9.I58 1998. URL http://link.springer.com/chapter/10.1007/978-3-642-60155-2_10/.

Barletti:2014:KHM

- [BFM14] Luigi Barletti, Giovanni Frosali, and Omar Morandi. Kinetic and hydrodynamic models for multi-band quantum transport in crystals. In Ehrhardt and Koprucki [EK14], pages 3–56. ISBN 3-319-01426-9, 3-319-01427-7 (e-book). ISSN 1439-7358 (print), 2197-7100 (electronic). LCCN QA71-90; QA300. URL http://link.springer.com/chapter/10.1007/978-3-319-01427-2_1/.

Bohm:1999:NAD

- [BFSW99] P. Böhm, E. Falck, J. Sigg, and G. Wachutka. Numerical analysis of distributed inductive parasitics in high power bus bars. In Bungartz et al. [BDZ99], pages 397–404. CODEN LNCSA6. ISBN 3-540-65730-4 (print), 3-642-60155-3 (e-book). ISSN 1439-7358 (print), 2197-7100 (electronic). LCCN Q183.9.I58 1998. URL http://link.springer.com/chapter/10.1007/978-3-642-60155-2_33/.

Bader:2002:OBA

- [BFZ02] M. Bader, A. C. Frank, and Ch. Zenger. An octree-based approach for fast elliptic solvers. In Breuer et al. [BDZ02], pages 157–166. CODEN LNCSA6. ISBN 3-540-42946-8 (print), 3-642-55919-0 (e-book). ISSN 1439-7358 (print), 2197-7100 (electronic). LCCN Q183.9 .I58

2001. URL http://link.springer.com/content/pdf/10.1007/978-3-642-55919-8_18.

Bank:1998:GHB

- [BG98] Randolph E. Bank and Sabine Gutsch. The generalized hierarchical basis two-level method for the convection-diffusion equation on a regular grid. In Hackbusch and Wittum [HW98], pages 1–20. CODEN LNCSA6. ISBN 3-540-63133-X (softcover), 3-642-58734-8 (e-book). ISSN 1439-7358 (print), 2197-7100 (electronic). LCCN QA377 .E94 1996. URL http://link.springer.com/chapter/10.1007/978-3-642-58734-4_1/.

Biros:2003:IIL

- [BG03] George Biros and Omar Ghattas. Inexactness issues in the Lagrange–Newton–Krylov–Schur method for PDE-constrained optimization. In Biegler et al. [BGHvBW03a], pages 93–114. CODEN LNCSA6. ISBN 3-540-05045-0 (print), 3-642-55508-X (e-book). ISSN 1439-7358 (print), 2197-7100 (electronic). LCCN QA402.5 .L358 2003. URL http://link.springer.com/content/pdf/10.1007/978-3-642-55508-4_6.

Bastani:2008:AAD

- [BG08] Houtan Bastani and Luca Guerrieri. On the application of automatic differentiation to the likelihood function for dynamic general equilibrium models. In Bischof et al. [BBH⁺08], pages 303–313. CODEN LNCSA6. ISBN 3-540-68935-4 (print), 3-540-68942-7 (e-book). ISSN 1439-7358 (print), 2197-7100 (electronic). LCCN QA304 .I58 2008. URL http://link.springer.com/content/pdf/10.1007/978-3-540-68942-3_27.

Bykov:2011:SII

- [BG11] Viatcheslav Bykov and Vladimir Gol'dshtein. Scaling invariant interpolation for singularly perturbed vector fields (SPVF). In Gorban and Roose [GR11b], pages 91–111. CODEN LNCSA6. ISBN 3-642-14940-5 (print), 3-642-14941-3 (e-book). ISSN 1439-7358 (print), 2197-7100 (electronic). LCCN QA401 .C67 2011. URL http://link.springer.com/content/pdf/10.1007/978-3-642-14941-2_5. Extended versions of selected talks given at the international research workshop: *Coping with Complexity: Model Reduction and*

Data Analysis, Ambleside, Lake District, UK, August 31–September 4, 2009 in conjunction with the A4A6, the 6th Conference on Algorithms for Approximation.

Boffi:2012:SRE

- [BG12a] Daniele Boffi and Francesca Gardini. Some remarks on eigenvalue approximation by finite elements. In Blowey and Jensen [BJ12], pages 1–77. CODEN LNCSA6. ISBN 3-642-23913-7 (print), 3-642-23914-5 (e-book). ISSN 1439-7358 (print), 2197-7100 (electronic). LCCN ???? URL http://link.springer.com/content/pdf/10.1007/978-3-642-23914-4_1. Proceedings of the Twelfth LMS–EPSRC Summer School in Computational Mathematics and Scientific Computation held at the University of Durham, UK, 25–31 July 2010.

Bosse:2012:RCF

- [BG12b] Torsten Bosse and Andreas Griewank. The relative cost of function and derivative evaluations in the CUTeR test set. In Forth et al. [FHP⁺12], pages 233–240. CODEN LNCSA6. ISBN 3-642-30022-7 (print), 3-642-30023-5 (e-book). ISSN 1439-7358 (print), 2197-7100 (electronic). LCCN ???? URL http://link.springer.com/content/pdf/10.1007/978-3-642-30023-3_21. Proceedings of the Sixth International Conference on Automatic Differentiation (AD2012) held July 23–27, 2012, in Fort Collins, Colorado, USA.

Bohn:2013:ASG

- [BG13] Bastian Bohn and Michael Griebel. An adaptive sparse grid approach for time series prediction. In Garcke and Griebel [GG13], pages 1–30. CODEN LNCSA6. ISBN 3-642-31702-2 (print), 3-642-31703-0 (e-book). ISSN 1439-7358 (print), 2197-7100 (electronic). LCCN ???? URL http://link.springer.com/content/pdf/10.1007/978-3-642-31703-3_1. Proceedings of workshop in Bonn, Germany, from May 16–20, 2011.

Bohm:2002:MSE

- [BGH02] P. Böhm, Y. C. Gerstenmaier, and R. H. W. Hoppe. Modeling and simulation of electrothermomechanical coupling phenomena in high power electronics. In Breuer et al. [BDZ02], pages 393–400. CODEN LNCSA6. ISBN 3-540-42946-8 (print), 3-642-55919-0 (e-book). ISSN 1439-7358 (print), 2197-7100 (electronic). LCCN Q183.9 .I58

2001. URL http://link.springer.com/content/pdf/10.1007/978-3-642-55919-8_43.

Biegler:2003:LSP

- [BGHvBW03a] Lorenz T. Biegler, Omar Ghattas, Matthias Heinkenschloss, and Bart van Bloemen Waanders, editors. *Large-Scale PDE-Constrained Optimization*, volume 30 of *Lecture Notes in Computational Science and Engineering*. Springer-Verlag Inc., New York, NY, USA, 2003. CODEN LNCSA6. ISBN 3-540-05045-0 (print), 3-642-55508-X (e-book). ISSN 1439-7358 (print), 2197-7100 (electronic). LCCN QA402.5.L358 2003. URL <http://link.springer.com/book/10.1007/978-3-642-55508-4>; <http://www.springerlink.com/content/978-3-642-55508-4>.

Biegler:2003:LSPa

- [BGHvBW03b] Lorenz T. Biegler, Omar Ghattas, Matthias Heinkenschloss, and Bart van Bloemen Waanders. Large-scale PDE-constrained optimization: an introduction. In *Large-Scale PDE-Constrained Optimization* [BGHvBW03a], pages 3–13. CODEN LNCSA6. ISBN 3-540-05045-0 (print), 3-642-55508-X (e-book). ISSN 1439-7358 (print), 2197-7100 (electronic). LCCN QA402.5.L358 2003. URL http://link.springer.com/content/pdf/10.1007/978-3-642-55508-4_1.

Belling:1999:QCP

- [BGK⁺99] Th. Belling, Th. Grauschopf, S. Krüger, M. Mayer, F. Nörtemann, M. Stauffer, C. Zenger, and N. Rösch. Quantum chemistry on parallel computers: Concepts and results of a density functional method. In Bungartz et al. [BDZ99], pages 441–458. CODEN LNCSA6. ISBN 3-540-65730-4 (print), 3-642-60155-3 (e-book). ISSN 1439-7358 (print), 2197-7100 (electronic). LCCN Q183.9.I58 1998. URL http://link.springer.com/chapter/10.1007/978-3-642-60155-2_37/.

Bischof:2008:PRM

- [BGK08] Christian Bischof, Niels Guertler, and Andreas Kowarz. Parallel reverse mode automatic differentiation for OpenMP programs with ADOL-C. In Bischof et al. [BBH⁺08], pages 163–173. CODEN LNCSA6. ISBN 3-540-68935-4 (print), 3-540-68942-7 (e-book). ISSN 1439-7358 (print), 2197-7100 (electronic). LCCN QA304.I58 2008. URL http://link.springer.com/content/pdf/10.1007/978-3-540-68942-3_15.

Ballani:2014:RAL

- [BGK14] Jonas Ballani, Lars Grasedyck, and Melanie Kluge. A review on adaptive low-rank approximation techniques in the hierarchical tensor format. In Dahlke et al. [DDG⁺14], pages 195–210. ISBN 3-319-08159-4. LCCN ???? URL http://link.springer.com/chapter/10.1007/978-3-319-08159-5_10/.

Birken:2015:ETT

- [BGKM15] Philipp Birken, Tobias Gleim, Detlef Kuhl, and Andreas Meister. Extrapolation in time in thermal fluid structure interaction. In Mehl et al. [MBS15], pages 215–231. ISBN 3-319-22996-6, 3-319-22997-4 (e-book). LCCN QA71-90; TA329. URL http://link.springer.com/chapter/10.1007/978-3-319-22997-3_13/.

Bercovier:2009:DDM

- [BGKW09] Michel Bercovier, Martin J. Gander, Ralf Kornhuber, and Olof Widlund, editors. *Domain Decomposition Methods in Science and Engineering XVIII*, volume 70 of *Lecture Notes in Computational Science and Engineering*. Springer-Verlag Inc., New York, NY, USA, 2009. CODEN LNCSA6. ISBN 3-642-02676-1 (print), 3-642-02677-X (e-book). ISSN 1439-7358 (print), 2197-7100 (electronic). LCCN QA402.2 .J584 2009. URL <http://link.springer.com/book/10.1007/978-3-642-02677-5>; <http://www.springerlink.com/content/978-3-642-02677-5>.

Bank:2003:IMC

- [BGM03] Randolph E. Bank, Philip E. Gill, and Roummel F. Marcia. Interior methods for a class of elliptic variational inequalities. In Biegler et al. [BGHvBW03a], pages 218–235. CODEN LNCSA6. ISBN 3-540-05045-0 (print), 3-642-55508-X (e-book). ISSN 1439-7358 (print), 2197-7100 (electronic). LCCN QA402.5 .L358 2003. URL http://link.springer.com/content/pdf/10.1007/978-3-642-55508-4_13.

Beck:2014:EFF

- [BGM14] Andrea D. Beck, Gregor J. Gassner, and Claus-Dieter Munz. On the effect of flux functions in discontinuous Galerkin simulations of underresolved turbulence. In Azaïez et al. [AHE13], pages 145–155. ISBN 3-319-01600-8 (hardcover). ISSN 1439-7358 (print), 2197-7100 (electronic). LCCN

???? URL http://link.springer.com/chapter/10.1007/978-3-319-01601-6_11/.

Berlyand:2005:DNA

- [BGN05] Leonid Berlyand, Yuliya Gorb, and Alexei Novikov. Discrete network approximation for highly-packed composites with irregular geometry in three dimensions. In Engquist et al. [ERL05], pages 21–57. CODEN LNCSA6. ISBN 3-540-25335-1 (print), 3-540-26444-2 (e-book). ISSN 1439-7358 (print), 2197-7100 (electronic). LCCN TA347.F5 M85 2005. URL http://link.springer.com/content/pdf/10.1007/3-540-26444-2_2. Proceedings of *Multiscale Methods in Science and Engineering*, Uppsala, Sweden, January 26–28, 2004.

Baranger:2005:GAL

- [BGOD05] Jacques Baranger, Marc Garbey, and Fabienne Oudin-Dardun. Generalized aitken-like acceleration of the Schwarz method. In Kornhuber et al. [KHP⁺05], pages 505–512. CODEN LNCSA6. ISBN 3-540-22523-4 (print), 3-540-26825-1 (e-book). ISSN 1439-7358 (print), 2197-7100 (electronic). LCCN QA402.2 .I55 2003. URL http://link.springer.com/content/pdf/10.1007/3-540-26825-1_52. Papers from the 15th International Conference on Domain Decomposition, Freie Universität Berlin (FU), Berlin, Germany, July 21–25, 2003.

Bartel:2002:NTD

- [BGPR02] A. Bartel, M. Günther, R. Pulch, and P. Rentrop. Numerical techniques for different time scales in electric circuit simulation. In Breuer et al. [BDZ02], pages 343–360. CODEN LNCSA6. ISBN 3-540-42946-8 (print), 3-642-55919-0 (e-book). ISSN 1439-7358 (print), 2197-7100 (electronic). LCCN Q183.9 .I58 2001. URL http://link.springer.com/content/pdf/10.1007/978-3-642-55919-8_38.

Benner:2006:NSO

- [BGS06] Peter Benner, Sabine Görner, and Jens Saak. Numerical solution of optimal control problems for parabolic systems. In Hoffmann and Meyer [HM06], pages 151–169. CODEN LNCSA6. ISBN 3-540-33539-0 (print), 3-540-33541-2 (e-book). ISSN 1439-7358 (print), 2197-7100 (electronic). LCCN QA76.58 .P358 2006. URL http://link.springer.com/content/pdf/10.1007/3-540-33541-2_9.

Brenner:2013:MMB

- [BGyS13] Susanne C. Brenner, Shiyuan Gu, and Li yeng Sung. Multi-grid methods for the biharmonic problem with Cahn–Hilliard boundary conditions. In Bank [Ban13], pages 127–134. ISBN 3-642-35274-X (hardcover), 3-642-35275-8 (e-book). ISSN 1439-7358 (print), 2197-7100 (electronic). LCCN QA402.2 .I58 2011. URL http://link.springer.com/chapter/10.1007/978-3-642-35275-1_13/.

Barnes:2000:ETM

- [BH00] David Barnes and Tim Hopkins. The evolution and testing of a medium sized numerical package. In Langtangen et al. [LBQ00], pages 225–237. CODEN LNCSA6. ISBN 3-540-66557-9 (softcover), 3-642-57172-7 (e-book). ISSN 1439-7358 (print), 2197-7100 (electronic). LCCN QA76.6 .A336 2000. URL http://link.springer.com/chapter/10.1007/978-3-642-57172-5_7/. Papers from an International Workshop on Modern Software Tools for Scientific Computing (SciTools'98), Oslo, Norway, September 14–16, 1998.

Buffa:2003:GBE

- [BH03] Annalisa Buffa and Ralf Hiptmair. Galerkin boundary element methods for electromagnetic scattering. In Ainsworth et al. [ADD⁺03], pages 83–124. CODEN LNCSA6. ISBN 3-540-00744-X (print), 3-642-55483-0 (e-book). ISSN 1439-7358 (print), 2197-7100 (electronic). LCCN QC661 .T67 2003. URL http://link.springer.com/content/pdf/10.1007/978-3-642-55483-4_3. Proceedings of the LMS Durham Symposium on Computational Methods for Wave Propagation in Direct Scattering University of Durham, 15–25 July 2002.

Blaudeck:2006:OSA

- [BH06] Peter Blaudeck and Karl Heinz Hoffmann. Optimizing simulated annealing schedules for amorphous carbons. In Hoffmann and Meyer [HM06], pages 227–234. CODEN LNCSA6. ISBN 3-540-33539-0 (print), 3-540-33541-2 (e-book). ISSN 1439-7358 (print), 2197-7100 (electronic). LCCN QA76.58 .P358 2006. URL http://link.springer.com/content/pdf/10.1007/3-540-33541-2_12.

Bhowmick:2008:PTA

- [BH08a] Sanjukta Bhowmick and Paul D. Hovland. A polynomial-time algorithm for detecting directed axial symmetry in Hessian computational graphs. In Bischof et al. [BBH⁺08], pages 91–102. CODEN LNCSA6. ISBN 3-540-68935-4 (print), 3-540-68942-7 (e-book). ISSN 1439-7358 (print), 2197-7100 (electronic). LCCN QA304 .I58 2008. URL http://link.springer.com/content/pdf/10.1007/978-3-540-68942-3_9.

Boyer:2008:FVM

- [BH08b] Franck Boyer and Florence Hubert. Finite volume method for nonlinear transmission problems. In Langer et al. [LDK⁺08], pages 443–450. CODEN LNCSA6. ISBN 3-540-75198-X (print), 3-540-75199-8 (e-book). ISSN 1439-7358 (print), 2197-7100 (electronic). LCCN QA402.2 .I55 2006. URL http://link.springer.com/content/pdf/10.1007/978-3-540-75199-1_56. 17th International Conference on Domain Decomposition Methods held at St. Wolfgang/Strobl, Austria, July 3–7, 2006.

Banks:2015:HOU

- [BH15] J. W. Banks and W. D. Henshaw. High-order upwind methods for wave equations on curvilinear and overlapping grids. In Kirby et al. [KBH15], pages 137–145. ISBN 3-319-19799-1, 3-319-19800-9 (e-book). LCCN QA377. URL http://link.springer.com/chapter/10.1007/978-3-319-19800-2_10/.

Blayo:2007:OSW

- [BHJ07] Eric Blayo, Laurence Halpern, and Caroline Japhet. Optimized Schwarz waveform relaxation algorithms with nonconforming time discretization for coupling convection-diffusion problems with discontinuous coefficients. In Widlund and Keyes [WK07], pages 267–274. CODEN LNCSA6. ISBN 3-540-34468-3 (print), 3-540-34469-1 (e-book). ISSN 1439-7358 (print), 2197-7100 (electronic). LCCN QA402.2 .I55 2005. URL http://link.springer.com/content/pdf/10.1007/978-3-540-34469-8_31. Proceedings of the *Sixteenth International Conference on Domain Decomposition Methods*, New York City, January 11–15, 2005.

Binder:2003:AST

- [BHKV03] Kurt Binder, Jurgen Horbach, Walter Kob, and Fathollah Varnik. Atomistic simulation of transport phenomena in simple and complex fluids and fluid mixtures. In Emmerich et al. [ENS03], page ?? CODEN LNCSA6. ISBN 3-540-40367-1. ISSN 1439-7358 (print), 2197-7100 (electronic). LCCN QC173.4.I57 I57 2003. URL <http://www.loc.gov/catdir/enhancements/fy0818/2003060231-d.html>. Papers from the workshop on “Computational Physics of Transport and Interfacial Dynamics”, Dresden, February 25–March 8, 2002.

Bao:2008:RSI

- [BHL08] G. Bao, S. Hou, and P. Li. Recent studies on inverse medium scattering problems. In Ammari [Amm08], pages 165–186. CODEN LNCSA6. ISBN 3-540-73777-4 (print), 3-540-73778-2 (e-book). ISSN 1439-7358 (print), 2197-7100 (electronic). LCCN QC760.4.M37 M63 2008. URL http://link.springer.com/content/pdf/10.1007/978-3-540-73778-0_6.

Board:1999:EMM

- [BHLR99] John A. Board, Jr., Christopher W. Humphres, Christophe G. Lambert, and William T. Rankin. Ewald and multipole methods for periodic N -body problems. In Deuffhard et al. [DHL⁺99], pages 459–471. CODEN LNCSA6. ISBN 3-540-63242-5 (print), 3-642-58360-1 (e-book). ISSN 1439-7358 (print), 2197-7100 (electronic). LCCN QP517.M65 I56 1999. URL http://link.springer.com/chapter/10.1007/978-3-642-58360-5_27/.

Benger:2000:EDF

- [BHM⁺00] Werner Benger, Hans-Christian Hege, André Merzky, Thomas Radke, and Edward Seidel. Efficient distributed file I/O for visualization in Grid environments. In Engquist et al. [EJHS00], pages 1–16. CODEN LNCSA6. ISBN 3-540-67264-8 (print), 3-642-57313-4 (e-book). ISSN 1439-7358 (print), 2197-7100 (electronic). LCCN QA76.9.C65 S535 2000. URL http://link.springer.com/chapter/10.1007/978-3-642-57313-2_1/.

Beremlijski:2014:NSC

- [BHOP14] Petr Beremlijski, Jaroslav Haslinger, Jirí Outrata, and Róbert Pathó. Numerical solution of 2D contact shape optimization problems involving a solution-dependent coefficient of friction. In Hoppe [Hop14], pages 1–24. ISBN 3-319-08024-5 (paperback), 3-319-08025-3 (e-book). ISSN 1439-7358 (print), 2197-7100 (electronic). LCCN QA71-90; QA377. URL http://link.springer.com/chapter/10.1007/978-3-319-08025-3_1/.

Buck:2014:MFE

- [BIA14] Marco Buck, Oleg Iliev, and Heiko Andrä. Multiscale finite elements for linear elasticity: Oscillatory boundary conditions. In Erhel et al. [EGH⁺14], pages 237–245. ISBN 3-319-05788-X (paperback), 3-319-05789-8 (e-book). ISSN 1439-7358 (print), 2197-7100 (electronic). LCCN QA71-90. URL http://link.springer.com/chapter/10.1007/978-3-319-05789-7_20/.

Behrens:2002:AMM

- [BIK02] Jörn Behrens, Armin Iske, and Martin Käser. Adaptive meshfree method of backward characteristics for nonlinear transport equations. In Griebel and Schweitzer [GS02b], pages 21–36. CODEN LNCSA6. ISBN 3-540-43891-2 (print), 3-642-56103-9 (e-book). ISSN 1439-7358 (print), 2197-7100 (electronic). LCCN QA377 .M45 2003. URL http://link.springer.com/content/pdf/10.1007/978-3-642-56103-0_2. Proceedings of a workshop on Meshfree Methods for Partial Differential Equations, Institut für Angewandte Mathematik, Rheinische Friedrich-Wilhelms Universität Bonn, September 11–14, 2001.

Billger:2005:BG

- [Bil05] Dag Billger. The butterfly gyro. In Benner et al. [BMS05c], pages 349–352. CODEN LNCSA6. ISBN 3-540-24545-6 (print), 3-540-27909-1 (e-book). ISSN 1439-7358 (print), 2197-7100 (electronic). LCCN TA347.C68 D56 2005. URL http://link.springer.com/content/pdf/10.1007/3-540-27909-1_18.

Bertoluzza:2005:FBM

- [BIM05] Silvia Bertoluzza, Mourad Ismail, and Bertrand Maury. The fat boundary method: Semi-discrete scheme and some numerical experiments. In Kornhuber et al. [KHP⁺05], pages

513–520. CODEN LNCSA6. ISBN 3-540-22523-4 (print), 3-540-26825-1 (e-book). ISSN 1439-7358 (print), 2197-7100 (electronic). LCCN QA402.2 .I55 2003. URL http://link.springer.com/content/pdf/10.1007/3-540-26825-1_53. Papers from the 15th International Conference on Domain Decomposition, Freie Universität Berlin (FU), Berlin, Germany, July 21–25, 2003.

Birner:2014:MBK

- [Bir14] Stefan Birner. The multi-band $k \cdot p$ Hamiltonian for heterostructures: Parameters and applications. In Ehrhardt and Koprucki [EK14], pages 193–244. ISBN 3-319-01426-9, 3-319-01427-7 (e-book). ISSN 1439-7358 (print), 2197-7100 (electronic). LCCN QA71-90; QA300. URL http://link.springer.com/chapter/10.1007/978-3-319-01427-2_6/.

Brandt:2009:DDA

- [BIW09] Achi Brandt, Oleg Iliev, and Joerg Willems. A domain decomposition approach for calculating the graph corresponding to a fibrous geometry. In Bercovier et al. [BGKW09], pages 3–14. CODEN LNCSA6. ISBN 3-642-02676-1 (print), 3-642-02677-X (e-book). ISSN 1439-7358 (print), 2197-7100 (electronic). LCCN QA402.2 .I584 2009. URL http://link.springer.com/content/pdf/10.1007/978-3-642-02677-5_1.

Blowey:2012:FNA

- [BJ12] James Blowey and Max Jensen, editors. *Frontiers in Numerical Analysis — Durham 2010*, volume 85 of *Lecture Notes in Computational Science and Engineering*. Springer-Verlag Inc., New York, NY, USA, 2012. CODEN LNCSA6. ISBN 3-642-23913-7 (print), 3-642-23914-5 (e-book). ISSN 1439-7358 (print), 2197-7100 (electronic). LCCN ???? URL <http://link.springer.com/book/10.1007/978-3-642-23914-4>; <http://www.springerlink.com/content/978-3-642-23914-4>. Proceedings of the Twelfth LMS–EPSRC Summer School in Computational Mathematics and Scientific Computation held at the University of Durham, UK, 25–31 July 2010.

Bludszuweit:2001:EIA

- [BK01] M. Bludszuweit and M. Kasper. Error indicator and adaptive meshing for hierarchical FEM-simulation of waveguides. In van Rienen et al. [vRGH01], pages 285–292. CODEN

LNCSA6. ISBN 3-540-42173-4 (softcover), 3-642-56470-4 (e-book). ISSN 1439-7358 (print), 2197-7100 (electronic). LCCN TK5 .S35 2001. URL http://link.springer.com/content/pdf/10.1007/978-3-642-56470-3_29. Selected contributions presented at the 3rd International Workshop on Scientific Computing in Electrical Engineering.

Bergdorf:2007:MPM

- [BK07] Michael Bergdorf and Petros Koumoutsakos. Multiresolution particle methods. In Kassinos et al. [KLIM07], pages 49–61. CODEN LNCSA6. ISBN 3-540-34233-8 (print), 3-540-34234-6 (e-book). ISSN 1439-7358 (print), 2197-7100 (electronic). LCCN TA357.5.T87 C66 2007. URL http://link.springer.com/content/pdf/10.1007/978-3-540-34234-2_4. Proceedings of the symposium on *Complex Effects in Large Eddy Simulation* held in Lemesos (Limassol), Cyprus, September 21–24, 2005.

Beckmann:2015:PNL

- [BK15] Andreas Beckmann and Ivo Kabadshow. Portable node-level performance optimization for the fast multipole method. In Mehl et al. [MBS15], pages 29–46. ISBN 3-319-22996-6, 3-319-22997-4 (e-book). LCCN QA71-90; TA329. URL http://link.springer.com/chapter/10.1007/978-3-319-22997-3_2/.

Bungartz:2015:FAI

- [BKK⁺15] Hans-Joachim Bungartz, Harald Klimach, Verena Krupp, Florian Lindner, and Miriam Mehl . . . Fluid-acoustics interaction on massively parallel systems. In Mehl et al. [MBS15], pages 151–165. ISBN 3-319-22996-6, 3-319-22997-4 (e-book). LCCN QA71-90; TA329. URL http://link.springer.com/chapter/10.1007/978-3-319-22997-3_9/.

Blaszczyk:2001:CET

- [BKP01] A. Blaszczyk, H. Ketterer, and A. Pedersen. Computational electromagnetism in transformer and switchgear design: Current trends. In van Rienen et al. [vRGH01], pages 55–62. CODEN LNCSA6. ISBN 3-540-42173-4 (softcover), 3-642-56470-4 (e-book). ISSN 1439-7358 (print), 2197-7100 (electronic). LCCN TK5 .S35 2001. URL http://link.springer.com/content/pdf/10.1007/978-3-642-56470-3_4. Selected

contributions presented at the 3rd International Workshop on Scientific Computing in Electrical Engineering.

Berninger:2007:NDN

- [BKS07] Heiko Berninger, Ralf Kornhuber, and Oliver Sander. On nonlinear Dirichlet–Neumann algorithms for jumping nonlinearities. In Widlund and Keyes [WK07], pages 489–496. CODEN LNCSA6. ISBN 3-540-34468-3 (print), 3-540-34469-1 (e-book). ISSN 1439-7358 (print), 2197-7100 (electronic). LCCN QA402.2 .I55 2005. URL http://link.springer.com/content/pdf/10.1007/978-3-540-34469-8_61. Proceedings of the *Sixteenth International Conference on Domain Decomposition Methods*, New York City, January 11–15, 2005.

Berninger:2011:CBD

- [BKS11] Heiko Berninger, Ralf Kornhuber, and Oliver Sander. Convergence behaviour of Dirichlet–Neumann and Robin methods for a nonlinear transmission problem. In Huang et al. [HKWX11], pages 87–98. CODEN LNCSA6. ISBN 3-642-11303-6 (print), 3-642-11304-4 (e-book). ISSN 1439-7358 (print), 2197-7100 (electronic). LCCN QA402.2 .I58 2011. URL http://link.springer.com/content/pdf/10.1007/978-3-642-11304-8_8. Papers presented at the 19th International Conference on Domain Decomposition, DD19, hosted by the School of Mathematics and Computational Science of the Xiangtan University and the Hunan Key Laboratory for Computation and Simulation in Science and Engineering and held in Zhanjiajie, China, August 17–22, 2009.

Borzi:2000:MAO

- [BKV00] Alfio Borzi, Karl Kunisch, and Michèle Vanmaele. A multigrid approach to the optimal control of solid fuel ignition problems. In Dick et al. [DRV00], pages 59–65. CODEN LNCSA6. ISBN 3-540-67157-9 (print), 3-642-58312-1 (e-book). ISSN 1439-7358 (print), 2197-7100 (electronic). LCCN QA377 .E94 1999. URL http://link.springer.com/chapter/10.1007/978-3-642-58312-4_7/.

Bergmans:2005:SRA

- [BKvOA05] J. Bergmans, R. Keppens, D. E. A. van Odyck, and A. Achterberg. Simulations of relativistic astrophysical flows. In Plewa et al. [PLW05], pages 223–233. CODEN LNCSA6. ISBN 3-540-21147-0 (print), 3-540-27039-6 (e-book). ISSN 1439-7358 (print), 2197-7100 (electronic). LCCN QA377 .C46

2003. URL http://link.springer.com/content/pdf/10.1007/3-540-27039-6_15.

Becker-Lemgau:1999:SCP

- [BLHJ⁺99] U. Becker-Lemgau, M. G. Hackenberg, W. Joppich, S. Mijalković, B. Steckel, T. Sontowski, and R. Tilch. Solution of coupled problems by parallel multigrid. In Bungartz et al. [BDZ99], pages 91–101. CODEN LNCSA6. ISBN 3-540-65730-4 (print), 3-642-60155-3 (e-book). ISSN 1439-7358 (print), 2197-7100 (electronic). LCCN Q183.9.I58 1998. URL http://link.springer.com/chapter/10.1007/978-3-642-60155-2_8/.

Bliman:2004:LKF

- [Bli04] Pierre-Alexandre Bliman. From Lyapunov–Krasovskii functionals for delay-independent stability to LMI conditions for μ -analysis. In Niculescu and Gu [NG04], pages 75–85. CODEN LNCSA6. ISBN 3-540-20890-9 (print), 3-642-18482-0 (e-book). ISSN 1439-7358 (print), 2197-7100 (electronic). LCCN TJ213 .A253 2004. URL http://link.springer.com/content/pdf/10.1007/978-3-642-18482-6_5. Most of the chapters are based on the materials presented in the CNRS-NSF Workshop *Advances in Time-Delay Systems* held in Paris in January 22–24, 2003.

Bijl:2013:UQC

- [BLMS13] Hester Bijl, Didier Lucor, Siddharta Mishra, and Christoph Schwab, editors. *Uncertainty quantification in computational fluid dynamics*, volume 92 of *Lecture Notes in Computational Science and Engineering*. Springer-Verlag Inc., New York, NY, USA, 2013. ISBN 3-319-00884-6 (hardcover), 3-319-00885-4 (e-book). ISSN 1439-7358 (print), 2197-7100 (electronic). 333 pp. LCCN ????

Barth:2002:TSM

- [BLR02] Eric Barth, Benedict Leimkuhler, and Sebastian Reich. A test set for molecular dynamics algorithms. In Schlick and Gan [SG02], pages 73–103. CODEN LNCSA6. ISBN 3-540-43756-8 (print), 3-642-56080-6 (e-book). ISSN 1439-7358 (print), 2197-7100 (electronic). LCCN QP517.M3 A384 2000. URL http://link.springer.com/content/pdf/10.1007/978-3-642-56080-4_4.

Bond:2015:GRB

- [BLR15] Stephen D. Bond, Richard B. Lehoucq, and Stephen T. Rowe. A Galerkin radial basis function method for nonlocal diffusion. In Griebel and Schweitzer [GS14], pages 1–21. ISBN 3-319-06898-9. LCCN QA71 .G75 2015; QA377. URL http://link.springer.com/chapter/10.1007/978-3-319-06898-5_1/.

Barth:2006:ATE

- [BLS06] Eric Barth, Ben Leimkuhler, and Chris Sweet. Approach to thermal equilibrium in biomolecular simulation. In Leimkuhler et al. [LCE⁺06], pages 125–140. CODEN LNCSA6. ISBN 3-540-25542-7 (print), 3-540-31618-3 (e-book). ISSN 1439-7358 (print), 2197-7100 (electronic). LCCN QP517.M3 N49 2006. URL http://link.springer.com/content/pdf/10.1007/3-540-31618-3_8. Papers from the fourth edition of *Algorithms for Macromolecular Modelling*, Leicester, UK August 2004.

Borrell:2009:SCM

- [BLSO09] R. Borrell, O. Lehmkuhl, M. Soria, and A. Oliva. Schur complement methods for the solution of Poisson equation with unstructured meshes. In Tuncer et al. [TGEM09], pages 283–290. CODEN LNCSA6. ISBN 3-540-92743-3 (print), 3-540-92744-1 (e-book). ISSN 1439-7358 (print), 2197-7100 (electronic). LCCN ????? URL http://link.springer.com/content/pdf/10.1007/978-3-540-92744-0_35. Parallel CFD 2007 was held in Antalya, Turkey, from May 21 to 24, 2007.

Borrell:2011:PDP

- [BLT⁺11] R. Borrell, O. Lehmkuhl, F. X. Trias, M. Soria, and A. Oliva. Parallel direct Poisson solver for DNS of complex turbulent flows using unstructured meshes. In Tromeur-Dervout et al. [TDBEE11], pages 227–234. CODEN LNCSA6. ISBN 3-642-14437-3 (print), 3-642-14438-1 (e-book). ISSN 1439-7358 (print), 2197-7100 (electronic). LCCN ????? URL http://link.springer.com/content/pdf/10.1007/978-3-642-14438-7_24. Proceedings of the twentieth meeting, Parallel CFD 2008, held May 19–22, 2008 in Lyon, France.

Bartels:2001:ITS

- [BM01] M. Bartels and B. Meinerzhagen. Investigation of time step control for the mixed-level device/circuit simulation of

SiGe bipolar microwave power amplifiers. In van Rienen et al. [vRGH01], pages 309–316. CODEN LNCSA6. ISBN 3-540-42173-4 (softcover), 3-642-56470-4 (e-book). ISSN 1439-7358 (print), 2197-7100 (electronic). LCCN TK5 .S35 2001. URL http://link.springer.com/content/pdf/10.1007/978-3-642-56470-3_32. Selected contributions presented at the 3rd International Workshop on Scientific Computing in Electrical Engineering.

Bal:2002:STD

- [BM02a] Guillaume Bal and Yvon Maday. A “Parareal” time discretization for non-linear PDE’s with application to the pricing of an American put. In Pavarino and Toselli [PT02], pages 189–202. CODEN LNCSA6. ISBN 3-540-43413-5 (print), 3-642-56118-7 (e-book). ISSN 1439-7358 (print), 2197-7100 (electronic). LCCN QA402.2 .R43 2002. URL http://link.springer.com/content/pdf/10.1007/978-3-642-56118-4_12. Papers presented at the Workshop on Domain Decomposition held at ETH, Zurich, June 7–8, 2001.

Brezzi:2002:SPN

- [BM02b] Franco Brezzi and Donatella Marini. Subgrid phenomena and numerical schemes. In Babuška et al. [BCM02], pages 73–89. CODEN LNCSA6. ISBN 3-540-42399-0 (print), 3-642-56288-4 (e-book). ISSN 1439-7358 (print), 2197-7100 (electronic). LCCN QA808.2 .I59 2000. URL http://link.springer.com/content/pdf/10.1007/978-3-642-56288-4_6.

Beckers:2012:AMC

- [BMN12] Markus Beckers, Viktor Mosenkis, and Uwe Naumann. Adjoint mode computation of subgradients for McCormick relaxations. In Forth et al. [FHP⁺12], pages 103–113. CODEN LNCSA6. ISBN 3-642-30022-7 (print), 3-642-30023-5 (e-book). ISSN 1439-7358 (print), 2197-7100 (electronic). LCCN ???? URL http://link.springer.com/content/pdf/10.1007/978-3-642-30023-3_10. Proceedings of the Sixth International Conference on Automatic Differentiation (AD2012) held July 23–27, 2012, in Fort Collins, Colorado, USA.

Bonnement:2014:THO

- [BMP14] A. Bonnement, S. Minjeaud, and R. Pasquetti. Towards a high order Fourier–SEM solver of fluid models in tokamaks. In Azaïez et al. [AHE13], pages 169–178. ISBN 3-319-01600-8

(hardcover). ISSN 1439-7358 (print), 2197-7100 (electronic). LCCN ???? URL http://link.springer.com/chapter/10.1007/978-3-319-01601-6_13/.

Brown:2014:QMC

- [BMPC14] Ethan Brown, Miguel A. Morales, Carlo Pierleoni, and David Ceperley. Quantum Monte Carlo techniques and applications for warm dense matter. In Graziani et al. [GDRT14b], pages 123–149. ISBN 3-319-04912-7. ISSN 1439-7358 (print), 2197-7100 (electronic). LCCN QA71-90. URL http://link.springer.com/chapter/10.1007/978-3-319-04912-0_5/.

Buffa:2003:AME

- [BMR03] Annalisa Buffa, Yvon Maday, and Francesca Rapetti. Applications of the mortar element method to 3D electromagnetic moving structures. In Carstensen et al. [CFH⁺03], pages 35–50. CODEN LNCSA6. ISBN 3-540-44392-4 (print), 3-642-55745-7 (e-book). ISSN 1439-7358 (print), 2197-7100 (electronic). LCCN QC665.E4 G35 2001. URL http://link.springer.com/content/pdf/10.1007/978-3-642-55745-3_4.

Bai:2005:AMS

- [BMS05a] Zhaojun Bai, Karl Meerbergen, and Yangfeng Su. Arnoldi methods for structure-preserving dimension reduction of second-order dynamical systems. In Benner et al. [BMS05c], pages 173–189. CODEN LNCSA6. ISBN 3-540-24545-6 (print), 3-540-27909-1 (e-book). ISSN 1439-7358 (print), 2197-7100 (electronic). LCCN TA347.C68 D56 2005. URL http://link.springer.com/content/pdf/10.1007/3-540-27909-1_7.

Bai:2005:SOM

- [BMS05b] Zhaojun Bai, Karl Meerbergen, and Yangfeng Su. Second order models: Linear-drive multi-mode resonator and axi symmetric model of a Circular piston. In Benner et al. [BMS05c], pages 363–365. CODEN LNCSA6. ISBN 3-540-24545-6 (print), 3-540-27909-1 (e-book). ISSN 1439-7358 (print), 2197-7100 (electronic). LCCN TA347.C68 D56 2005. URL http://link.springer.com/content/pdf/10.1007/3-540-27909-1_21.

Benner:2005:DRL

- [BMS05c] Peter Benner, Volker Mehrmann, and Danny C. Sorensen, editors. *Dimension Reduction of Large-Scale Systems: Proceedings of a Workshop held in Oberwolfach, Germany, October 19–25, 2003*, volume 45 of *Lecture Notes in Computational Science and Engineering*. Springer-Verlag Inc., New York, NY, USA, 2005. CODEN LNCSA6. ISBN 3-540-24545-6 (print), 3-540-27909-1 (e-book). ISSN 1439-7358 (print), 2197-7100 (electronic). LCCN TA347.C68 D56 2005. URL <http://link.springer.com/book/10.1007/3-540-27909-1>.

Bungartz:2010:FSI

- [BMS10] Hans-Joachim Bungartz, Miriam Mehl, and Michael Schäfer, editors. *Fluid Structure Interaction II: Modelling, Simulation, Optimization*, volume 73 of *Lecture Notes in Computational Science and Engineering*. Springer-Verlag Inc., New York, NY, USA, 2010. CODEN LNCSA6. ISBN 3-642-14205-2 (print), 3-642-14206-0 (e-book). ISSN 1439-7358 (print), 2197-7100 (electronic). LCCN TA357.5.F58 F586b 2010. URL <http://link.springer.com/book/10.1007/978-3-642-14206-2>; <http://www.springerlink.com/content/978-3-642-14206-2>. Selected contributions from the *First International Workshop on Computational Engineering — special topic Fluid-Structure Interactions* held in Herrsching, Germany, in October 2009.

Brenner:2015:CIP

- [BMS15] Susanne C. Brenner, Peter Monk, and Jiguang Sun. C^0 interior penalty Galerkin method for biharmonic eigenvalue problems. In Kirby et al. [KBH15], pages 3–15. ISBN 3-319-19799-1, 3-319-19800-9 (e-book). LCCN QA377. URL http://link.springer.com/chapter/10.1007/978-3-319-19800-2_1/.

Bank:2011:DDH

- [BN11] Randolph E. Bank and Hieu Nguyen. Domain decomposition and hp -adaptive finite elements. In Huang et al. [HKWX11], pages 3–13. CODEN LNCSA6. ISBN 3-642-11303-6 (print), 3-642-11304-4 (e-book). ISSN 1439-7358 (print), 2197-7100 (electronic). LCCN QA402.2 .I58 2011. URL http://link.springer.com/content/pdf/10.1007/978-3-642-11304-8_1. Papers presented at the 19th International Conference on Domain Decomposition, DD19,

hosted by the School of Mathematics and Computational Science of the Xiangtan University and the Hunan Key Laboratory for Computation and Simulation in Science and Engineering and held in Zhanjiajie, China, August 17–22, 2009.

Bank:2013:MRB

- [BN13] Randolph E. Bank and Hieu Nguyen. Mesh regularization in Bank–Holst parallel hp-adaptive meshing. In Bank [Ban13], pages 103–110. ISBN 3-642-35274-X (hardcover), 3-642-35275-8 (e-book). ISSN 1439-7358 (print), 2197-7100 (electronic). LCCN QA402.2 .I58 2011. URL http://link.springer.com/chapter/10.1007/978-3-642-35275-1_10/.

Back:2011:SSG

- [BNT11] Joakim Bäck, Fabio Nobile, and Lorenzo Tamellini. Stochastic spectral Galerkin and collocation methods for PDEs with random coefficients: a numerical comparison. In Hesthaven and Rønquist [HR11], pages 43–62. CODEN LNCSA6. ISBN 3-642-15336-4 (print), 3-642-15337-2 (e-book). ISSN 1439-7358 (print), 2197-7100 (electronic). LCCN ???? URL http://link.springer.com/content/pdf/10.1007/978-3-642-15337-2_3.

Beck:2014:QOS

- [BNTT14] Joakim Beck, Fabio Nobile, Lorenzo Tamellini, and Raúl Tempono. A quasi-optimal sparse grids procedure for groundwater flows. In Azaiez et al. [AHE13], pages 1–16. ISBN 3-319-01600-8 (hardcover). ISSN 1439-7358 (print), 2197-7100 (electronic). LCCN ???? URL http://link.springer.com/chapter/10.1007/978-3-319-01601-6_1/.

Boffi:2003:FET

- [Bof03] Daniele Boffi. Finite elements for the time harmonic Maxwell's equations. In Carstensen et al. [CFH⁺03], pages 11–22. CODEN LNCSA6. ISBN 3-540-44392-4 (print), 3-642-55745-7 (e-book). ISSN 1439-7358 (print), 2197-7100 (electronic). LCCN QC665.E4 G35 2001. URL http://link.springer.com/content/pdf/10.1007/978-3-642-55745-3_2.

Boglaev:2011:UQC

- [Bog11] Igor Boglaev. Uniform quadratic convergence of monotone iterates for semilinear singularly perturbed elliptic problems. In Clavero et al. [CGL11], pages 37–46. CODEN

LNCSA6. ISBN 3-642-19664-0 (print), 3-642-19665-9 (e-book). ISSN 1439-7358 (print), 2197-7100 (electronic). LCCN ???? URL http://link.springer.com/content/pdf/10.1007/978-3-642-19665-2_5. Selected papers from the proceedings of BAIL 2010 (Boundary and Interior Layers — Computational and Asymptotic Methods), held from 5 to 9 July 2010 at the University of Zaragoza, Spain.

Bonnet:2002:EPC

- [Bon02] Marc Bonnet. Exploiting partial or complete geometrical symmetry in boundary integral equation formulations of elastodynamic problems. In Babuška et al. [BCM02], pages 253–269. CODEN LNCSA6. ISBN 3-540-42399-0 (print), 3-642-56288-4 (e-book). ISSN 1439-7358 (print), 2197-7100 (electronic). LCCN QA808.2 .I59 2000. URL http://link.springer.com/content/pdf/10.1007/978-3-642-56288-4_18.

Borici:2000:FMC

- [Bor00] Artan Boriçi. Fast methods for computing the Neuberger operator. In Frommer et al. [FLMS00], pages 40–47. CODEN LNCSA6. ISBN 3-540-67732-1 (print), 3-642-58333-4 (e-book). ISSN 1439-7358 (print), 2197-7100 (electronic). LCCN QC793.3.G38 N86 2000. URL http://link.springer.com/chapter/10.1007/978-3-642-58333-9_4/.

Bordner:2005:TOE

- [Bor05a] James Bordner. Toward optimizing enzo, an AMR cosmology application. In Plewa et al. [PLW05], pages 351–359. CODEN LNCSA6. ISBN 3-540-21147-0 (print), 3-540-27039-6 (e-book). ISSN 1439-7358 (print), 2197-7100 (electronic). LCCN QA377 .C46 2003. URL http://link.springer.com/content/pdf/10.1007/3-540-27039-6_25.

Borici:2005:CMF

- [Bor05b] Artan Boriçi. Computational methods for the fermion determinant and the link between overlap and domain wall fermions. In Boriçi et al. [BFJ⁺05], pages 25–39. CODEN LNCSA6. ISBN 3-540-21257-4 (print), 3-540-28504-0 (e-book). ISSN 1439-7358 (print), 2197-7100 (electronic). LCCN QC793.3.Q35 I56 2003. URL http://link.springer.com/content/pdf/10.1007/3-540-28504-0_3.

Borici:2005:DOS

- [Bor05c] Artan Boriçi. Determinant and order statistics. In Boriçi et al. [BFJ⁺05], pages 57–66. CODEN LNCSA6. ISBN 3-540-21257-4 (print), 3-540-28504-0 (e-book). ISSN 1439-7358 (print), 2197-7100 (electronic). LCCN QC793.3.Q35 I56 2003. URL http://link.springer.com/content/pdf/10.1007/3-540-28504-0_5.

Bossavit:2001:RDF

- [Bos01] A. Bossavit. On the representation of differential forms by potentials in dimension 3. In van Rienen et al. [vRGH01], pages 97–104. CODEN LNCSA6. ISBN 3-540-42173-4 (softcover), 3-642-56470-4 (e-book). ISSN 1439-7358 (print), 2197-7100 (electronic). LCCN TK5 .S35 2001. URL http://link.springer.com/content/pdf/10.1007/978-3-642-56470-3_9. Selected contributions presented at the 3rd International Workshop on Scientific Computing in Electrical Engineering.

Borve:2002:SSM

- [BOT02] Steinar Børve, Marianne Omang, and Jan Trulsen. SPH simulations of MHD shocks using a piecewise constant smoothing length profile. In Griebel and Schweitzer [GS02b], pages 51–62. CODEN LNCSA6. ISBN 3-540-43891-2 (print), 3-642-56103-9 (e-book). ISSN 1439-7358 (print), 2197-7100 (electronic). LCCN QA377 .M45 2003. URL http://link.springer.com/content/pdf/10.1007/978-3-642-56103-0_4. Proceedings of a workshop on Meshfree Methods for Partial Differential Equations, Institut für Angewandte Mathematik, Rheinische Friedrich-Wilhelms Universität Bonn, September 11–14, 2001.

Boyaval:2011:ECV

- [Boy11a] Sébastien Boyaval. An efficient control variate method for parametrized expectations. In Hesthaven and Rønquist [HR11], pages 121–130. CODEN LNCSA6. ISBN 3-642-15336-4 (print), 3-642-15337-2 (e-book). ISSN 1439-7358 (print), 2197-7100 (electronic). LCCN ????. URL http://link.springer.com/content/pdf/10.1007/978-3-642-15337-2_9.

Boyd:2011:PBE

- [Boy11b] John P. Boyd. A proof, based on the Euler sum acceleration, of the recovery of an exponential (geometric) rate of convergence for the Fourier series of a function with Gibbs phenomenon. In Hesthaven and Rønquist [HR11], pages 131–139. CODEN LNCSA6. ISBN 3-642-15336-4 (print), 3-642-15337-2 (e-book). ISSN 1439-7358 (print), 2197-7100 (electronic). LCCN ???? URL http://link.springer.com/content/pdf/10.1007/978-3-642-15337-2_10.

Biro:2003:GCV

- [BP03] Oszkár Bíró and Kurt Preis. Gauged current vector potential and reentrant corners in the FEM analysis of 3D eddy currents. In Carstensen et al. [CFH⁺03], pages 1–10. CODEN LNCSA6. ISBN 3-540-44392-4 (print), 3-642-55745-7 (e-book). ISSN 1439-7358 (print), 2197-7100 (electronic). LCCN QC665.E4 G35 2001. URL http://link.springer.com/content/pdf/10.1007/978-3-642-55745-3_1.

Bonnet:2004:RSA

- [BP04] Catherine Bonnet and Jonathan R. Parlington. Robust stability analysis of various classes of delay systems. In Niculescu and Gu [NG04], pages 245–255. CODEN LNCSA6. ISBN 3-540-20890-9 (print), 3-642-18482-0 (e-book). ISSN 1439-7358 (print), 2197-7100 (electronic). LCCN TJ213 .A253 2004. URL http://link.springer.com/content/pdf/10.1007/978-3-642-18482-6_18. Most of the chapters are based on the materials presented in the CNRS-NSF Workshop *Advances in Time-Delay Systems* held in Paris in January 22–24, 2003.

Bertoluzza:2007:PHO

- [BP07] Silvia Bertoluzza and Micol Pennacchio. Preconditioners for high order mortar methods based on substructuring. In Widlund and Keyes [WK07], pages 497–504. CODEN LNCSA6. ISBN 3-540-34468-3 (print), 3-540-34469-1 (e-book). ISSN 1439-7358 (print), 2197-7100 (electronic). LCCN QA402.2 .I55 2005. URL http://link.springer.com/content/pdf/10.1007/978-3-540-34469-8_62. Proceedings of the *Sixteenth International Conference on Domain Decomposition Methods*, New York City, January 11–15, 2005.

Beuchler:2008:CSS

- [BP08] Sven Beuchler and Veronika Pillwein. Completions to sparse shape functions for triangular and tetrahedral p-FEM. In Langer et al. [LDK⁺08], pages 435–442. CODEN LNCSA6. ISBN 3-540-75198-X (print), 3-540-75199-8 (e-book). ISSN 1439-7358 (print), 2197-7100 (electronic). LCCN QA402.2 .I55 2006. URL http://link.springer.com/content/pdf/10.1007/978-3-540-75199-1_55. 17th International Conference on Domain Decomposition Methods held at St. Wolfgang/Strobl, Austria, July 3–7, 2006.

Bompadre:2013:HCM

- [BP13] Agustín Bompadre and Luigi E. Perotti. HOLMES: Convergent meshfree approximation schemes of arbitrary order and smoothness. In Griebel and Schweitzer [GS13b], pages 111–126. CODEN LNCSA6. ISBN 3-642-32978-0 (print), 3-642-32979-9 (e-book). ISSN 1439-7358 (print), 2197-7100 (electronic). LCCN QA297 .I58 2011. URL http://link.springer.com/content/pdf/10.1007/978-3-642-32979-1_7. Proceedings of the Sixth International Workshop on Meshfree Methods for Partial Differential Equations, October 4–6, 2011, Bonn, Germany.

Bansch:2014:FEM

- [BP14] Eberhard Bänsch and Rodolphe Prignitz. A finite element method for particulate flow. In Erhel et al. [EGH⁺14], pages 17–28. ISBN 3-319-05788-X (paperback), 3-319-05789-8 (e-book). ISSN 1439-7358 (print), 2197-7100 (electronic). LCCN QA71-90. URL http://link.springer.com/chapter/10.1007/978-3-319-05789-7_2/.

Buse:2014:EPE

- [BPJ14] Gerrit Buse, Dirk Pflüger, and Riko Jacob. Efficient pseudorecursive evaluation schemes for non-adaptive sparse grids. In Garcke and Pflüger [GP14], pages 1–27. ISBN 3-319-04536-9 (paperback), 3-319-04537-7 (e-book). LCCN QA188 .S63 2013. URL http://link.springer.com/chapter/10.1007/978-3-319-04537-5_1/.

Bouman:2011:CSE

- [BPK11] Mick Bouman, Artur Palha, and Jasper Kreeft. A conservative spectral element method for curvilinear domains.

In Hesthaven and Rønquist [HR11], pages 111–119. CODEN LNCSA6. ISBN 3-642-15336-4 (print), 3-642-15337-2 (e-book). ISSN 1439-7358 (print), 2197-7100 (electronic). LCCN ????. URL http://link.springer.com/content/pdf/10.1007/978-3-642-15337-2_8.

Bucker:2008:COT

- [BPV08] H. Martin Bucker, Monika Petera, and Andre Vehreschild. Code optimization techniques in source transformations for interpreted languages. In Bischof et al. [BBH⁺08], pages 223–233. CODEN LNCSA6. ISBN 3-540-68935-4 (print), 3-540-68942-7 (e-book). ISSN 1439-7358 (print), 2197-7100 (electronic). LCCN QA304 .I58 2008. URL http://link.springer.com/content/pdf/10.1007/978-3-540-68942-3_20.

Basting:2015:CTD

- [BQGC15] Steffen Basting, Annalisa Quaini, Roland Glowinski, and Suncica Canic. Comparison of time discretization schemes to simulate the motion of an inextensible beam. In Abdulle et al. [ADK⁺15], pages 175–183. ISBN 3-319-10704-6 (paperback), 3-319-10705-4 (e-book). ISSN 1439-7358 (print), 2197-7100 (electronic). LCCN QA76.9.M35 .E976 2015. URL http://link.springer.com/chapter/10.1007/978-3-319-10705-9_17/.

Benner:2005:MRB

- [BQO05] Peter Benner and Enrique S. Quintana-Ortí. Model reduction based on spectral projection methods. In Benner et al. [BMS05c], pages 5–48. CODEN LNCSA6. ISBN 3-540-24545-6 (print), 3-540-27909-1 (e-book). ISSN 1439-7358 (print), 2197-7100 (electronic). LCCN TA347.C68 D56 2005. URL http://link.springer.com/content/pdf/10.1007/3-540-27909-1_1.

Bassi:2000:GDG

- [BR00a] F. Bassi and S. Rebay. GMRES discontinuous Galerkin solution of the compressible Navier–Stokes equations. In Cockburn et al. [CKS00b], pages 197–208. CODEN LNCSA6. ISBN 3-540-66787-3, 3-642-64098-2 (print), 3-642-59721-1 (e-book). ISSN 1439-7358 (print), 2197-7100 (electronic). LCCN TA347.F5 D57 2000. URL http://link.springer.com/chapter/10.1007/978-3-642-59721-3_14/. Papers from

the first international symposium on DGM Newport, Rhode Island, USA, May 24–26, 1999.

Bassi:2000:HOD

- [BR00b] F. Bassi and S. Rebay. A high order discontinuous Galerkin method for compressible turbulent flows. In Cockburn et al. [CKS00b], pages 77–88. CODEN LNCSA6. ISBN 3-540-66787-3, 3-642-64098-2 (print), 3-642-59721-1 (e-book). ISSN 1439-7358 (print), 2197-7100 (electronic). LCCN TA347.F5 D57 2000. URL http://link.springer.com/chapter/10.1007/978-3-642-59721-3_4/. Papers from the first international symposium on DGM Newport, Rhode Island, USA, May 24–26, 1999.

Bruno:2008:HOM

- [BR08] O. P. Bruno and F. Reitich. High-order methods for high-frequency scattering applications. In Ammari [Amm08], pages 129–163. CODEN LNCSA6. ISBN 3-540-73777-4 (print), 3-540-73778-2 (e-book). ISSN 1439-7358 (print), 2197-7100 (electronic). LCCN QC760.4.M37 M63 2008. URL http://link.springer.com/content/pdf/10.1007/978-3-540-73778-0_5.

Bjontegaard:2011:HOP

- [BR11a] Tormod Bjontegaard and Einar M. Rønquist. High order polynomial interpolation of parameterized curves. In Hesthaven and Rønquist [HR11], pages 365–372. CODEN LNCSA6. ISBN 3-642-15336-4 (print), 3-642-15337-2 (e-book). ISSN 1439-7358 (print), 2197-7100 (electronic). LCCN ????? URL http://link.springer.com/content/pdf/10.1007/978-3-642-15337-2_34.

Borrel:2011:NDG

- [BR11b] M. Borrel and J. Ryan. A new discontinuous Galerkin method for the Navier–Stokes equations. In Hesthaven and Rønquist [HR11], pages 373–381. CODEN LNCSA6. ISBN 3-642-15336-4 (print), 3-642-15337-2 (e-book). ISSN 1439-7358 (print), 2197-7100 (electronic). LCCN ????? URL http://link.springer.com/content/pdf/10.1007/978-3-642-15337-2_35.

Boscarino:2014:HOA

- [BR14a] Sebastiano Boscarino and Giovanni Russo. High-order asymptotic-preserving methods for nonlinear relaxation from

hyperbolic systems to convection-diffusion equations. In Abgrall et al. [ABC⁺14], pages 1–13. ISBN 3-319-05454-6 (paperback), 3-319-05455-4 (e-book). ISSN 1439-7358 (print), 2197-7100 (electronic). LCCN QA374 .A384 2014. URL http://link.springer.com/chapter/10.1007/978-3-319-05455-1_1/.

Bossavit:2014:WFM

- [BR14b] Alain Bossavit and Francesca Rapetti. Whitney forms, from manifolds to fields. In Azaïez et al. [AHE13], pages 179–189. ISBN 3-319-01600-8 (hardcover). ISSN 1439-7358 (print), 2197-7100 (electronic). LCCN ???? URL http://link.springer.com/chapter/10.1007/978-3-319-01601-6_14/.

Brandt:2002:MSC

- [Bra02] Achi Brandt. Multiscale scientific computation: Review 2001. In Barth et al. [BCH02], pages 3–95. CODEN LNCSA6. ISBN 3-540-42420-2 (print), 3-642-56205-1 (e-book). ISSN 1439-7358 (print), 2197-7100 (electronic). LCCN QA403.3 .M85 2002. URL http://link.springer.com/content/pdf/10.1007/978-3-642-56205-1_1. Papers from the Yosemite Educational Symposium (YES), Yosemite valley, California, Fall 2000.

Brandt:2007:PSM

- [Bra07] Tellervo Brandt. A posteriori study on modelling and numerical error in LES applying the Smagorinsky model. In Kassinos et al. [KLIM07], pages 173–189. CODEN LNCSA6. ISBN 3-540-34233-8 (print), 3-540-34234-6 (e-book). ISSN 1439-7358 (print), 2197-7100 (electronic). LCCN TA357.5.T87 C66 2007. URL http://link.springer.com/content/pdf/10.1007/978-3-540-34234-2_13. Proceedings of the symposium on *Complex Effects in Large Eddy Simulation* held in Lemesos (Limassol), Cyprus, September 21–24, 2005.

Brenner:2007:LBD

- [Bre07] Susanne C. Brenner. Lower bounds in domain decomposition. In Widlund and Keyes [WK07], pages 27–39. CODEN LNCSA6. ISBN 3-540-34468-3 (print), 3-540-34469-1 (e-book). ISSN 1439-7358 (print), 2197-7100 (electronic). LCCN QA402.2 .I55 2005. URL http://link.springer.com/content/pdf/10.1007/978-3-540-34469-8_3. Proceedings of the *Sixteenth International Conference on Domain Decomposition Methods*, New York City, January 11–15, 2005.

Brenner:2008:FAF

- [Bre08] Susanne C. Brenner. A functional analytic framework for BDDC and FETI-DP. In Langer et al. [LDK⁺08], pages 239–246. CODEN LNCSA6. ISBN 3-540-75198-X (print), 3-540-75199-8 (e-book). ISSN 1439-7358 (print), 2197-7100 (electronic). LCCN QA402.2 .I55 2006. URL http://link.springer.com/content/pdf/10.1007/978-3-540-75199-1_27. 17th International Conference on Domain Decomposition Methods held at St. Wolfgang/Strobl, Austria, July 3–7, 2006.

Brenner:2012:CIP

- [Bre12] Susanne C. Brenner. C^0 interior penalty methods. In Blowey and Jensen [BJ12], pages 79–147. CODEN LNCSA6. ISBN 3-642-23913-7 (print), 3-642-23914-5 (e-book). ISSN 1439-7358 (print), 2197-7100 (electronic). LCCN ????? URL http://link.springer.com/content/pdf/10.1007/978-3-642-23914-4_2. Proceedings of the Twelfth LMS–EPSRC Summer School in Computational Mathematics and Scientific Computation held at the University of Durham, UK, 25–31 July 2010.

Brown:2000:GTI

- [Bro00] Maxine D. Brown. Global tele-immersion: Working in cyberspace. In Engquist et al. [EJHS00], page 63. CODEN LNCSA6. ISBN 3-540-67264-8 (print), 3-642-57313-4 (e-book). ISSN 1439-7358 (print), 2197-7100 (electronic). LCCN QA76.9.C65 S535 2000. URL http://link.springer.com/accesspage/chapter/10.1007/978-3-642-57313-2_6.

Benitez:2003:ITS

- [BRP03] Raul Benitez and Laureano Ramirez-Piscina. Initial transients in the symmetric model for directional solidification. In Emerich et al. [ENS03], page ?? CODEN LNCSA6. ISBN 3-540-40367-1. ISSN 1439-7358 (print), 2197-7100 (electronic). LCCN QC173.4.I57 I57 2003. URL <http://www.loc.gov/catdir/enhancements/fy0818/2003060231-d.html>. Papers from the workshop on “Computational Physics of Transport and Interfacial Dynamics”, Dresden, February 25–March 8, 2002.

Bruno:2003:FHO

- [Bru03] Oscar P. Bruno. Fast, high-order, high-frequency integral methods for computational acoustics and electromagnetics. In Ainsworth et al. [ADD⁺03], pages 43–82. CODEN LNCSA6. ISBN 3-540-00744-X (print), 3-642-55483-0 (e-book). ISSN 1439-7358 (print), 2197-7100 (electronic). LCCN QC661 .T67 2003. URL http://link.springer.com/content/pdf/10.1007/978-3-642-55483-4_2. Proceedings of the LMS Durham Symposium on Computational Methods for Wave Propagation in Direct Scattering University of Durham, 15–25 July 2002.

Brunner:2011:MWG

- [Bru11] Alla Brunner. Meshfree Wavelet–Galerkin method for steady-state analysis of nonlinear microwave circuits. In Griebel and Schweitzer [GS11c], pages 249–263. CODEN LNCSA6. ISBN 3-642-16228-2 (print), 3-642-16229-0 (e-book). ISSN 1439-7358 (print), 2197-7100 (electronic). LCCN ????? URL http://link.springer.com/content/pdf/10.1007/978-3-642-16229-9_16. Proceedings of the Fifth International Workshop on Meshfree Methods for Partial Differential Equations held from August 17 to August 19, 2009 in Bonn, Germany.

Babuska:2002:CWT

- [BS02a] I. Babuska and T. Strouboulis. Can we trust the computational analysis of engineering problems? In Babuška et al. [BCM02], pages 169–183. CODEN LNCSA6. ISBN 3-540-42399-0 (print), 3-642-56288-4 (e-book). ISSN 1439-7358 (print), 2197-7100 (electronic). LCCN QA808.2 .I59 2000. URL http://link.springer.com/content/pdf/10.1007/978-3-642-56288-4_12.

Bauer:2002:PES

- [BS02b] Andrew C. Bauer and Swapan Sanjanwala. Portable efficient solvers for adaptive finite element simulations of elastostatics in two and three dimensions. In Pavarino and Toselli [PT02], pages 223–243. CODEN LNCSA6. ISBN 3-540-43413-5 (print), 3-642-56118-7 (e-book). ISSN 1439-7358 (print), 2197-7100 (electronic). LCCN QA402.2 .R43 2002. URL http://link.springer.com/content/pdf/10.1007/978-3-642-56118-4_14. Papers presented at the Work-

shop on Domain Decomposition held at ETH, Zurich, June 7–8, 2001.

Benner:2005:SDH

- [BS05] Peter Benner and Jens Saak. A semi-discretized heat transfer model for optimal cooling of steel profiles. In Benner et al. [BMS05c], pages 353–356. CODEN LNCSA6. ISBN 3-540-24545-6 (print), 3-540-27909-1 (e-book). ISSN 1439-7358 (print), 2197-7100 (electronic). LCCN TA347.C68 D56 2005. URL http://link.springer.com/content/pdf/10.1007/3-540-27909-1_19.

Bungartz:2006:FSI

- [BS06] Hans-Joachim Bungartz and Michael Schäfer, editors. *Fluid-Structure Interaction: Modelling, Simulation, Optimisation*, volume 53 of *Lecture Notes in Computational Science and Engineering*. Springer-Verlag Inc., New York, NY, USA, 2006. CODEN LNCSA6. ISBN 3-540-34595-7 (print), 3-540-34596-5 (e-book). ISSN 1439-7358 (print), 2197-7100 (electronic). viii + 385 pp. LCCN TA357.5.F58 F586 200. URL <http://link.springer.com/book/10.1007/3-540-34596-5>; <http://link.springer.com/book/10.1007/978-3-540-34596-1>; <http://www.springerlink.com/content/978-3-540-34596-1>. Proceedings of a workshop on fluid-structure interactions held in Hohenwart, Germany, in October 2005.

Beran:2013:UQA

- [BS13] Philip Beran and Bret Stanford. Uncertainty quantification in aeroelasticity. In Bijl et al. [BLMS13], pages 59–103. ISBN 3-319-00884-6 (hardcover), 3-319-00885-4 (e-book). ISSN 1439-7358 (print), 2197-7100 (electronic). LCCN ????. URL http://link.springer.com/chapter/10.1007/978-3-319-00885-1_2/.

Baur:2014:FOC

- [BS14a] Christine Baur and Michael Schäfer. A fourth-order compact finite volume scheme for the convection-diffusion equation. In Azañez et al. [AHE13], pages 135–144. ISBN 3-319-01600-8 (hardcover). ISSN 1439-7358 (print), 2197-7100 (electronic). LCCN ????. URL http://link.springer.com/chapter/10.1007/978-3-319-01601-6_10/.

Bock:2014:GHO

- [BS14b] Karsten Bock and Jörg Stiller. Generation of high-order polynomial patches from scattered data. In Azaïez et al. [AHE13], pages 157–167. ISBN 3-319-01600-8 (hardcover). ISSN 1439-7358 (print), 2197-7100 (electronic). LCCN ??? URL http://link.springer.com/chapter/10.1007/978-3-319-01601-6_12/.

Buffa:2014:ECV

- [BSS14] Annalisa Buffa, Giancarlo Sangalli, and Christoph Schwab. Exponential convergence of the *hp* version of isogeometric analysis in 1D. In Azaïez et al. [AHE13], pages 191–203. ISBN 3-319-01600-8 (hardcover). ISSN 1439-7358 (print), 2197-7100 (electronic). LCCN ??? URL http://link.springer.com/chapter/10.1007/978-3-319-01601-6_15/.

Bruaset:2006:NSP

- [BT06] Are Magnus Bruaset and Aslak Tveito, editors. *Numerical Solution of Partial Differential Equations on Parallel Computers*, volume 51 of *Lecture Notes in Computational Science and Engineering*. Springer-Verlag Inc., New York, NY, USA, 2006. CODEN LNCSA6. ISBN 3-540-29076-1 (print), 3-540-31619-1 (e-book). ISSN 1439-7358 (print), 2197-7100 (electronic). xii + 482 pp. LCCN QA377 .N87 2006. URL <http://link.springer.com/book/10.1007/3-540-31619-1>.

Braack:2011:FED

- [BT11] M. Braack and B. Tews. Finite element discretizations of optimal control flow problems with boundary layers. In Clavero et al. [CGL11], pages 47–55. CODEN LNCSA6. ISBN 3-642-19664-0 (print), 3-642-19665-9 (e-book). ISSN 1439-7358 (print), 2197-7100 (electronic). LCCN ??? URL http://link.springer.com/content/pdf/10.1007/978-3-642-19665-2_6. Selected papers from the proceedings of BAIL 2010 (Boundary and Interior Layers — Computational and Asymptotic Methods), held from 5 to 9 July 2010 at the University of Zaragoza, Spain.

Baker:2002:MMN

- [BTH⁺02] Nathan A. Baker, Kaihsu Tai, Richard Henchman, David Sept, Adrian Elcock, and Michael Holst. Mathematics and molecular neurobiology. In Schlick and Gan [SG02], pages

31–60. CODEN LNCSA6. ISBN 3-540-43756-8 (print), 3-642-56080-6 (e-book). ISSN 1439-7358 (print), 2197-7100 (electronic). LCCN QP517.M3 A384 2000. URL http://link.springer.com/content/pdf/10.1007/978-3-642-56080-4_2.

Boehm:2013:NCM

- [BU13] Christian Boehm and Michael Ulbrich. A Newton–CG method for full-waveform inversion in a coupled solid-fluid system. In Bader et al. [BBW13], pages 99–117. ISBN 3-642-38761-6, 3-642-38762-4 (e-book). ISSN 1439-7358 (print), 2197-7100 (electronic). LCCN ???? URL http://link.springer.com/chapter/10.1007/978-3-642-38762-3_5/.

Bufa:2003:TTN

- [Buf03] Annalisa Buffa. Trace theorems on non-smooth boundaries for functional spaces related to Maxwell equations: an overview. In Carstensen et al. [CFH⁺03], pages 23–34. CODEN LNCSA6. ISBN 3-540-44392-4 (print), 3-642-55745-7 (e-book). ISSN 1439-7358 (print), 2197-7100 (electronic). LCCN QC665.E4 G35 2001. URL http://link.springer.com/content/pdf/10.1007/978-3-642-55745-3_3.

Blom:2015:MLA

- [BUM⁺15] D. S. Blom, B. Uekermann, M. Mehl, A. H. van Zijlen, and H. Bijl. Multi-level acceleration of parallel coupled partitioned fluid-structure interaction with manifold mapping. In Mehl et al. [MBS15], pages 135–150. ISBN 3-319-22996-6, 3-319-22997-4 (e-book). LCCN QA71-90; TA329. URL http://link.springer.com/chapter/10.1007/978-3-319-22997-3_8/.

Brandt:1998:MEI

- [BV98] A. Brandt and C. H. Venner. Multilevel evaluation of integral transforms on adaptive grids. In Hackbusch and Wittum [HW98], pages 21–44. CODEN LNCSA6. ISBN 3-540-63133-X (softcover), 3-642-58734-8 (e-book). ISSN 1439-7358 (print), 2197-7100 (electronic). LCCN QA377 .E94 1996. URL http://link.springer.com/chapter/10.1007/978-3-642-58734-4_2/.

Bomhof:2001:PGT

- [Bv01] W. Bomhof and H. A. van der Vorst. A parallelizable GMRES-type method for p -cyclic matrices, with ap-

plications in circuit simulation. In van Rienen et al. [vRGH01], pages 293–300. CODEN LNCSA6. ISBN 3-540-42173-4 (softcover), 3-642-56470-4 (e-book). ISSN 1439-7358 (print), 2197-7100 (electronic). LCCN TK5 .S35 2001. URL http://link.springer.com/content/pdf/10.1007/978-3-642-56470-3_30. Selected contributions presented at the 3rd International Workshop on Scientific Computing in Electrical Engineering.

Bucker:2008:CVN

- [BV08] H. Martin Bucker and Andre Vehreschild. Coping with a variable number of arguments when transforming MATLAB programs. In Bischof et al. [BBH⁺08], pages 211–222. CODEN LNCSA6. ISBN 3-540-68935-4 (print), 3-540-68942-7 (e-book). ISSN 1439-7358 (print), 2197-7100 (electronic). LCCN QA304 .I58 2008. URL http://link.springer.com/content/pdf/10.1007/978-3-540-68942-3_19.

Bogaerds:2000:SFJ

- [BVB00] Arjen C. B. Bogaerds, Wilco M. H. Verbeeten, and Frank P. T. Baaijens. Successes and failures of discontinuous Galerkin methods in viscoelastic fluid analysis. In Cockburn et al. [CKS00b], pages 263–270. CODEN LNCSA6. ISBN 3-540-66787-3, 3-642-64098-2 (print), 3-642-59721-1 (e-book). ISSN 1439-7358 (print), 2197-7100 (electronic). LCCN TA347.F5 D57 2000. URL http://link.springer.com/chapter/10.1007/978-3-642-59721-3_20/. Papers from the first international symposium on DGM Newport, Rhode Island, USA, May 24–26, 1999.

Butz:2002:MTP

- [BvC02] T. Butz, O. vonStryk, and C. Chucholowski. Modeling techniques and parameter estimation for the simulation of complex vehicle structures. In Breuer et al. [BDZ02], pages 333–340. CODEN LNCSA6. ISBN 3-540-42946-8 (print), 3-642-55919-0 (e-book). ISSN 1439-7358 (print), 2197-7100 (electronic). LCCN Q183.9 .I58 2001. URL http://link.springer.com/content/pdf/10.1007/978-3-642-55919-8_37.

Bountis:2011:MRH

- [BvdW11] Tassos Bountis and Ko van der Wee. Model reduction of a higher-order KdV equation for shallow water waves. In Gorbun and Roose [GR11b], pages 287–298. CODEN LNCSA6.

ISBN 3-642-14940-5 (print), 3-642-14941-3 (e-book). ISSN 1439-7358 (print), 2197-7100 (electronic). LCCN QA401 .C67 2011. URL http://link.springer.com/content/pdf/10.1007/978-3-642-14941-2_15. Extended versions of selected talks given at the international research workshop: *Coping with Complexity: Model Reduction and Data Analysis*, Ambleside, Lake District, UK, August 31–September 4, 2009 in conjunction with the A4A6, the *6th Conference on Algorithms for Approximation*.

Belytschko:2002:NMD

- [BVX02] Ted Belytschko, Giulio Ventura, and Jingxiao Xu. New methods for discontinuity and crack modeling in EFG. In Griebel and Schweitzer [GS02b], pages 37–50. CODEN LNCSA6. ISBN 3-540-43891-2 (print), 3-642-56103-9 (e-book). ISSN 1439-7358 (print), 2197-7100 (electronic). LCCN QA377 .M45 2003. URL http://link.springer.com/content/pdf/10.1007/978-3-642-56103-0_3. Proceedings of a workshop on Meshfree Methods for Partial Differential Equations, Institut für Angewandte Mathematik, Rheinische Friedrich-Wilhelms Universität Bonn, September 11–14, 2001.

Berg:2003:MPM

- [BW03a] Peter Berg and Eddie Wilson. Microscopic parameters and macroscopic features of traffic flow. In Emmerich et al. [ENS03], page ?? CODEN LNCSA6. ISBN 3-540-40367-1. ISSN 1439-7358 (print), 2197-7100 (electronic). LCCN QC173.4.I57 I57 2003. URL <http://www.loc.gov/catdir/enhancements/fy0818/2003060231-d.html>. Papers from the workshop on “Computational Physics of Transport and Interfacial Dynamics”, Dresden, February 25–March 8, 2002.

Biegler:2003:SSS

- [BW03b] Lorenz T. Biegler and Andreas Wächter. SQP SAND strategies that link to existing modeling systems. In Biegler et al. [BGHvBW03a], pages 199–217. CODEN LNCSA6. ISBN 3-540-05045-0 (print), 3-642-55508-X (e-book). ISSN 1439-7358 (print), 2197-7100 (electronic). LCCN QA402.5 .L358 2003. URL http://link.springer.com/content/pdf/10.1007/978-3-642-55508-4_12.

Brockfeld:2003:TTF

- [BW03c] Elmar Brockfeld and Peter Wagner. Testing traffic flow models. In Emmerich et al. [ENS03], page ?? CO-

DEN LNCSA6. ISBN 3-540-40367-1. ISSN 1439-7358 (print), 2197-7100 (electronic). LCCN QC173.4.I57 I57 2003. URL <http://www.loc.gov/catdir/enhancements/fy0818/2003060231-d.html>. Papers from the workshop on “Computational Physics of Transport and Interfacial Dynamics”, Dresden, February 25–March 8, 2002.

Bal:2008:SP

- [BW08] Guillaume Bal and Qi Wu. Symplectic Parareal. In Langer et al. [LDK⁺08], pages 401–408. CODEN LNCSA6. ISBN 3-540-75198-X (print), 3-540-75199-8 (e-book). ISSN 1439-7358 (print), 2197-7100 (electronic). LCCN QA402.2 .I55 2006. URL http://link.springer.com/content/pdf/10.1007/978-3-540-75199-1_51. 17th International Conference on Domain Decomposition Methods held at St. Wolfgang/Strobl, Austria, July 3–7, 2006.

Bernsdorf:2009:BFS

- [BW09] Jürg Bernsdorf and Dinan Wang. Blood flow simulation in cerebral aneurysm: a lattice Boltzmann application in medical physics. In Tuncer et al. [TGEM09], pages 291–296. CODEN LNCSA6. ISBN 3-540-92743-3 (print), 3-540-92744-1 (e-book). ISSN 1439-7358 (print), 2197-7100 (electronic). LCCN ???? URL http://link.springer.com/content/pdf/10.1007/978-3-540-92744-0_36. Parallel CFD 2007 was held in Antalya, Turkey, from May 21 to 24, 2007.

Bohm:2002:MST

- [BWH02] P. Böhm, G. Wachutka, and R. H. W. Hoppe. Modelling and simulation of the transient electromagnetic behavior of high power bus bars. In Breuer et al. [BDZ02], pages 385–392. CODEN LNCSA6. ISBN 3-540-42946-8 (print), 3-642-55919-0 (e-book). ISSN 1439-7358 (print), 2197-7100 (electronic). LCCN Q183.9 .I58 2001. URL http://link.springer.com/content/pdf/10.1007/978-3-642-55919-8_42.

Bletzinger:2006:ATS

- [BWK06] Kai-Uwe Bletzinger, Roland Wüchner, and Alexander Kupzok. Algorithmic treatment of shells and free form-membranes in FSI. In Bungartz and Schäfer [BS06], pages 336–355. CODEN LNCSA6. ISBN 3-540-34595-7 (print), 3-540-34596-5 (e-book). ISSN 1439-7358 (print), 2197-7100 (electronic). LCCN

TA357.5.F58 F586 200. URL http://link.springer.com/content/pdf/10.1007/3-540-34596-5_13. Proceedings of a workshop on fluid-structure interactions held in Hohenwart, Germany, in October 2005.

Boysen:2002:SHP

- [BWLA02] H. Boysen, G. Wozny, M. Lisso, and W. Arlt. Simulation of high pressure liquid chromatography (HPLC) columns with CFD. In Breuer et al. [BDZ02], pages 45–52. CODEN LNCSA6. ISBN 3-540-42946-8 (print), 3-642-55919-0 (e-book). ISSN 1439-7358 (print), 2197-7100 (electronic). LCCN Q183.9 .I58 2001. URL http://link.springer.com/content/pdf/10.1007/978-3-642-55919-8_5.

Bagci:2008:TDA

- [BYJ08] H. Bagci, A. E. Yilmaz, and J.-M. Jin. Time domain adaptive integral method for surface integral equations. In Ammari [Amm08], pages 65–104. CODEN LNCSA6. ISBN 3-540-73777-4 (print), 3-540-73778-2 (e-book). ISSN 1439-7358 (print), 2197-7100 (electronic). LCCN QC760.4.M37 M63 2008. URL http://link.springer.com/content/pdf/10.1007/978-3-540-73778-0_3.

Bellen:2004:AID

- [BZ04] Alfredo Bellen and Marino Zennaro. Adaptive integration of delay differential equations. In Niculescu and Gu [NG04], pages 155–165. CODEN LNCSA6. ISBN 3-540-20890-9 (print), 3-642-18482-0 (e-book). ISSN 1439-7358 (print), 2197-7100 (electronic). LCCN TJ213 .A253 2004. URL http://link.springer.com/content/pdf/10.1007/978-3-642-18482-6_11. Most of the chapters are based on the materials presented in the CNRS-NSF Workshop *Advances in Time-Delay Systems* held in Paris in January 22–24, 2003.

Brannick:2007:AMM

- [BZ07] James Brannick and Ludmil Zikatanov. Algebraic multigrid methods based on compatible relaxation and energy minimization. In Widlund and Keyes [WK07], pages 15–26. CODEN LNCSA6. ISBN 3-540-34468-3 (print), 3-540-34469-1 (e-book). ISSN 1439-7358 (print), 2197-7100 (electronic). LCCN QA402.2 .I55 2005. URL http://link.springer.com/content/pdf/10.1007/978-3-540-34469-8_2. Proceedings

of the *Sixteenth International Conference on Domain Decomposition Methods*, New York City, January 11–15, 2005.

Burman:2012:NAL

- [BZ12] Erik Burman and Paolo Zunino. Numerical approximation of large contrast problems with the unfitted Nitsche method. In Blowey and Jensen [BJ12], pages 227–282. CODEN LNCSA6. ISBN 3-642-23913-7 (print), 3-642-23914-5 (e-book). ISSN 1439-7358 (print), 2197-7100 (electronic). LCCN ????. URL http://link.springer.com/content/pdf/10.1007/978-3-642-23914-4_4. Proceedings of the Twelfth LMS–EPSRC Summer School in Computational Mathematics and Scientific Computation held at the University of Durham, UK, 25–31 July 2010.

Czerwinska:2004:DPD

- [CA04] Justyna Czerwinska and Nikolaus A. Adams. Dissipative particle dynamics for modeling complex fluidics. In Attinger and Koumoutsakos [AK04], pages 237–246. CODEN LNCSA6. ISBN 3-540-21180-2 (print), 3-642-18756-0 (e-book). ISSN 1439-7358 (print), 2197-7100 (electronic). LCCN TA342 .M85 2004. URL http://link.springer.com/content/pdf/10.1007/978-3-642-18756-8_18. Proceedings of a Summer Program in Multi-Scale Modelling and Simulation held in Lugano, Switzerland, between August 4th and 30th, 2003.

Cai:2000:HOC

- [Cai00] Wei Cai. High order current basis functions for electromagnetic scattering of curved surfaces. In Cockburn et al. [CKS00b], pages 271–276. CODEN LNCSA6. ISBN 3-540-66787-3, 3-642-64098-2 (print), 3-642-59721-1 (e-book). ISSN 1439-7358 (print), 2197-7100 (electronic). LCCN TA347.F5 D57 2000. URL http://link.springer.com/chapter/10.1007/978-3-642-59721-3_21/. Papers from the first international symposium on DGM Newport, Rhode Island, USA, May 24–26, 1999.

Cai:2003:ODD

- [Cai03] X. Cai. Overlapping domain decomposition methods. In Langtangen and Tveito [LT03], pages 57–95. CODEN LNCSA6. ISBN 3-540-01438-1 (print), 3-642-18237-2 (e-book). ISSN 1439-7358 (print), 2197-7100 (electronic). LCCN QA377 .A45

2003. URL http://link.springer.com/content/pdf/10.1007/978-3-642-18237-2_2.

Cai:2009:NOD

- [Cai09] Xiao-Chuan Cai. Nonlinear overlapping domain decomposition methods. In Bercovier et al. [BGKW09], pages 217–224. CODEN LNCSA6. ISBN 3-642-02676-1 (print), 3-642-02677-X (e-book). ISSN 1439-7358 (print), 2197-7100 (electronic). LCCN QA402.2 .I584 2009. URL http://link.springer.com/content/pdf/10.1007/978-3-642-02677-5_23.

Cai:2003:PC

- [CAL03] X. Cai, E. Acklam, and H. P. Langtangen. Parallel computing. In Langtangen and Tveito [LT03], pages 1–55. CODEN LNCSA6. ISBN 3-540-01438-1 (print), 3-642-18237-2 (e-book). ISSN 1439-7358 (print), 2197-7100 (electronic). LCCN QA377 .A45 2003. URL http://link.springer.com/content/pdf/10.1007/978-3-642-18237-2_1.

Castillo:2000:OEL

- [Cas00] Paul Castillo. An optimal estimate for the local discontinuous Galerkin method. In Cockburn et al. [CKS00b], pages 285–290. CODEN LNCSA6. ISBN 3-540-66787-3, 3-642-64098-2 (print), 3-642-59721-1 (e-book). ISSN 1439-7358 (print), 2197-7100 (electronic). LCCN TA347.F5 D57 2000. URL http://link.springer.com/chapter/10.1007/978-3-642-59721-3_23/. Papers from the first international symposium on DGM Newport, Rhode Island, USA, May 24–26, 1999.

Castor:2008:VMH

- [Cas08] J. I. Castor. Verification (mostly) for high energy density radiation transport: Five case studies. In Graziani [Gra08b], pages 1–17. CODEN LNCSA6. ISBN 3-540-77361-4 (print), 3-540-77362-2 (e-book). ISSN 1439-7358 (print), 2197-7100 (electronic). LCCN ???? URL http://link.springer.com/content/pdf/10.1007/978-3-540-77362-7_1. Proceedings of the 2006 Computational Methods in Transport (CMTW) conference.

Chatelain:2008:LSM

- [CB08] Philippe Chatelain and Michael Bergdorf. Large scale, multiresolution flow simulations using remeshed particle methods.

In Griebel and Schweitzer [GS08d], pages 35–46. CODEN LNCSA6. ISBN 3-540-79993-1 (print), 3-540-79994-X (e-book). ISSN 1439-7358 (print), 2197-7100 (electronic). LCCN ????. URL http://link.springer.com/content/pdf/10.1007/978-3-540-79994-8_3. Fourth International Workshop on Meshfree Methods for Partial Differential Equations held from September 17 to September 20, 2007 in Bonn, Germany.

Chudejl:2002:SHF

- [CBG02] K. Chudejl, Ch Biiskensl, and T. Graf. Solution of a hard flight path optimization problem by different optimization codes. In Breuer et al. [BDZ02], pages 289–296. CODEN LNCSA6. ISBN 3-540-42946-8 (print), 3-642-55919-0 (e-book). ISSN 1439-7358 (print), 2197-7100 (electronic). LCCN Q183.9 .I58 2001. URL http://link.springer.com/content/pdf/10.1007/978-3-642-55919-8_32.

Cai:2003:PMP

- [CBL03] X. Cai, A. M. Bruaset, and H. P. Langtangen. Performance modeling of PDE solvers. In Langtangen and Tveito [LT03], pages 361–399. CODEN LNCSA6. ISBN 3-540-01438-1 (print), 3-642-18237-2 (e-book). ISSN 1439-7358 (print), 2197-7100 (electronic). LCCN QA377 .A45 2003. URL http://link.springer.com/content/pdf/10.1007/978-3-642-18237-2_9.

Christianson:2006:APU

- [CC06] Bruce Christianson and Maurice Cox. Automatic propagation of uncertainties. In Bücker et al. [BCH⁺06], pages 47–58. CODEN LNCSA6. ISBN 3-540-28403-6 (print), 3-540-28438-9 (e-book). ISSN 1439-7358 (print), 2197-7100 (electronic). LCCN QA304 .I58 2006. URL http://link.springer.com/content/pdf/10.1007/3-540-28438-9_4. Proceedings of the Fourth International Conference on Automatic Differentiation, July 20–23, Chicago, Illinois.

Chetverushkin:2009:PSF

- [CC09] Boris Chetverushkin and Natalia Churbanova. Parallel simulation of flows in porous media using adaptive locally-refined meshes. In Tuncer et al. [TGEM09], pages 371–378. CODEN LNCSA6. ISBN 3-540-92743-3 (print), 3-540-92744-1 (e-book). ISSN 1439-7358 (print), 2197-7100 (electronic). LCCN ????. URL http://link.springer.com/content/pdf/10.1007/978-3-540-92743-3_17.

1007/978-3-540-92744-0_46. Parallel CFD 2007 was held in Antalya, Turkey, from May 21 to 24, 2007.

Calvo:2012:SNM

- [CC12] Mari Paz Calvo and Philippe Chartier. A stroboscopic numerical method for highly oscillatory problems. In Engquist et al. [ERT12], pages 71–85. CODEN LNCSA6. ISBN 3-642-21942-X (print), 3-642-21943-8 (e-book). ISSN 1439-7358 (print), 2197-7100 (electronic). LCCN ???? URL http://link.springer.com/content/pdf/10.1007/978-3-642-21943-6_4.

Claussen:2003:SOF

- [CCC+03] Jens Christian Claussen, Jurgen Carstensen, Marc Christophersen, Sergiu Langa, and Helmut Foll. Self-organized formation of fractal and regular pores in semiconductors. In Emmerich et al. [ENS03], page ?? CODEN LNCSA6. ISBN 3-540-40367-1. ISSN 1439-7358 (print), 2197-7100 (electronic). LCCN QC173.4.I57 I57 2003. URL <http://www.loc.gov/catdir/enhancements/fy0818/2003060231-d.html>. Papers from the workshop on “Computational Physics of Transport and Interfacial Dynamics”, Dresden, February 25–March 8, 2002.

Carre:2000:MSC

- [CCGL00] Gilles Carré, Gilles Carte, Hervé Guillard, and Stéphane Lanteri. Multigrid strategies for CFD problems on non-structured meshes. In Dick et al. [DRV00], pages 1–10. CODEN LNCSA6. ISBN 3-540-67157-9 (print), 3-642-58312-1 (e-book). ISSN 1439-7358 (print), 2197-7100 (electronic). LCCN QA377 .E94 1999. URL http://link.springer.com/chapter/10.1007/978-3-642-58312-4_1/.

Cammer:2002:ISS

- [CCT02] Stephen A. Cammer, Charles W. Carter, Jr., and Alexander Tropsha. Identification of sequence-specific tertiary packing motifs in protein structures using Delaunay tessellation. In Schlick and Gan [SG02], pages 477–494. CODEN LNCSA6. ISBN 3-540-43756-8 (print), 3-642-56080-6 (e-book). ISSN 1439-7358 (print), 2197-7100 (electronic). LCCN QP517.M3 A384 2000. URL http://link.springer.com/content/pdf/10.1007/978-3-642-56080-4_19.

Costabel:2003:CRF

- [CD03] Martin Costabel and Monique Dauge. Computation of resonance frequencies for Maxwell equations in non-smooth domains. In Ainsworth et al. [ADD⁺03], pages 125–161. CODEN LNCSA6. ISBN 3-540-00744-X (print), 3-642-55483-0 (e-book). ISSN 1439-7358 (print), 2197-7100 (electronic). LCCN QC661 .T67 2003. URL http://link.springer.com/content/pdf/10.1007/978-3-642-55483-4_4. Proceedings of the LMS Durham Symposium on Computational Methods for Wave Propagation in Direct Scattering University of Durham, 15–25 July 2002.

Carati:2007:EFS

- [CD07] Daniele Carati and Olivier Debligny. Energy fluxes and shell-to-shell transfers in MHD turbulence. In Kassinos et al. [KLIM07], pages 401–412. CODEN LNCSA6. ISBN 3-540-34233-8 (print), 3-540-34234-6 (e-book). ISSN 1439-7358 (print), 2197-7100 (electronic). LCCN TA357.5.T87 C66 2007. URL http://link.springer.com/content/pdf/10.1007/978-3-540-34234-2_28. Proceedings of the symposium on *Complex Effects in Large Eddy Simulation* held in Lemesos (Limassol), Cyprus, September 21–24, 2005.

Charpentier:2008:EHO

- [CD08a] Isabelle Charpentier and Claude Dal Cappello. Efficient higher-order derivatives of the hypergeometric function. In Bischof et al. [BBH⁺08], pages 127–137. CODEN LNCSA6. ISBN 3-540-68935-4 (print), 3-540-68942-7 (e-book). ISSN 1439-7358 (print), 2197-7100 (electronic). LCCN QA304 .I58 2008. URL http://link.springer.com/content/pdf/10.1007/978-3-540-68942-3_12.

Cuomo:2008:MWM

- [CD08b] Salvatore Cuomo and Luisa D'Amore. A modification of Weeks' method for numerical inversion of the Laplace transform in the real case based on automatic differentiation. In Bischof et al. [BBH⁺08], pages 45–54. CODEN LNCSA6. ISBN 3-540-68935-4 (print), 3-540-68942-7 (e-book). ISSN 1439-7358 (print), 2197-7100 (electronic). LCCN QA304 .I58 2008. URL http://link.springer.com/content/pdf/10.1007/978-3-540-68942-3_5.

Cioica:2014:AWM

- [CDD⁺14] Petru A. Cioica, Stephan Dahlke, Nicolas Döhring, Stefan Kinzel, and Felix Lindner . . . Adaptive wavelet methods for SPDEs. In Dahlke et al. [DDG⁺14], pages 83–107. ISBN 3-319-08159-4. LCCN ????. URL http://link.springer.com/chapter/10.1007/978-3-319-08159-5_5/.

Chegini:2014:PTP

- [CDFS14] Nabi G. Chegini, Stephan Dahlke, Ulrich Friedrich, and Rob Stevenson. Piecewise tensor product wavelet bases by extensions and approximation rates. In Dahlke et al. [DDG⁺14], pages 69–81. ISBN 3-319-08159-4. LCCN ????. URL http://link.springer.com/chapter/10.1007/978-3-319-08159-5_4/.

Childers:2000:AGC

- [CDH⁺00] Lisa Childers, Terry Disz, Mark Hereld, Randy Hudson, Ivan Judson, Michael E. Papka, Joe Paris, and Rick Stevens. ActiveSpaces on the Grid: The construction of advanced visualization and interaction environments. In Engquist et al. [EJHS00], pages 64–80. CODEN LNCSA6. ISBN 3-540-67264-8 (print), 3-642-57313-4 (e-book). ISSN 1439-7358 (print), 2197-7100 (electronic). LCCN QA76.9.C65 S535 2000. URL http://link.springer.com/chapter/10.1007/978-3-642-57313-2_7/.

Castaings:2006:ADT

- [CDH06] W. Castaings, D. Dartus, and M. Honnorat. Automatic differentiation: a tool for variational data assimilation and adjoint sensitivity analysis for flood modeling. In Bücker et al. [BCH⁺06], pages 249–262. CODEN LNCSA6. ISBN 3-540-28403-6 (print), 3-540-28438-9 (e-book). ISSN 1439-7358 (print), 2197-7100 (electronic). LCCN QA304 .I58 2006. URL http://link.springer.com/content/pdf/10.1007/3-540-28438-9_22. Proceedings of the Fourth International Conference on Automatic Differentiation, July 20–23, Chicago, Illinois.

Casado-Díaz:2011:ABV

- [CDLL11] J. Casado-Díaz and M. Luna-Laynez. Asymptotic behavior of a viscous fluid near a rough boundary. In Clavero et al. [CGL11], pages 57–64. CODEN LNCSA6. ISBN 3-642-19664-0 (print), 3-642-19665-9 (e-book). ISSN 1439-7358

(print), 2197-7100 (electronic). LCCN ???? URL http://link.springer.com/content/pdf/10.1007/978-3-642-19665-2_7. Selected papers from the proceedings of BAIL 2010 (Boundary and Interior Layers — Computational and Asymptotic Methods), held from 5 to 9 July 2010 at the University of Zaragoza, Spain.

Chiavassa:2005:MBA

- [CDM05] Guillaume Chiavassa, Rosa Donat, and Siegfried Müller. Multiresolution-based adaptive schemes for hyperbolic conservation laws. In Plewa et al. [PLW05], pages 137–159. CODEN LNCSA6. ISBN 3-540-21147-0 (print), 3-540-27039-6 (e-book). ISSN 1439-7358 (print), 2197-7100 (electronic). LCCN QA377 .C46 2003. URL http://link.springer.com/content/pdf/10.1007/3-540-27039-6_10.

Cluzeau:2013:STD

- [CDNQ13] T. Cluzeau, V. Dolean, F. Nataf, and A. Quadrat. Symbolic techniques for domain decomposition methods. In Bank [Ban13], pages 27–38. ISBN 3-642-35274-X (hardcover), 3-642-35275-8 (e-book). ISSN 1439-7358 (print), 2197-7100 (electronic). LCCN QA402.2 .I58 2011. URL http://link.springer.com/chapter/10.1007/978-3-642-35275-1_3/.

Cocle:2007:IMS

- [CDW07] R. Cocle, L. Dufresne, and G. Winckelmans. Investigation of multiscale subgrid models for LES of instabilities and turbulence in wake vortex systems. In Kassinos et al. [KLIM07], pages 141–159. CODEN LNCSA6. ISBN 3-540-34233-8 (print), 3-540-34234-6 (e-book). ISSN 1439-7358 (print), 2197-7100 (electronic). LCCN TA357.5.T87 C66 2007. URL http://link.springer.com/content/pdf/10.1007/978-3-540-34234-2_11. Proceedings of the symposium on *Complex Effects in Large Eddy Simulation* held in Lemesos (Limassol), Cyprus, September 21–24, 2005.

Clemens:2001:NAC

- [CDWW01] M. Clemens, S. Drobny, M. Wilke, and T. Weiland. Numerical algorithms for the calculation of magneto-quasistatic fields using the finite integration technique. In van Rienen et al. [vRGH01], pages 63–70. CODEN LNCSA6. ISBN 3-540-42173-4 (softcover), 3-642-56470-4 (e-book). ISSN 1439-7358 (print), 2197-7100 (electronic). LCCN TK5 .S35

2001. URL http://link.springer.com/content/pdf/10.1007/978-3-642-56470-3_5. Selected contributions presented at the 3rd International Workshop on Scientific Computing in Electrical Engineering.

Carstensen:2003:CEP

[CFH⁺03] Carsten Carstensen, Stefan Funken, Wolfgang Hackbusch, Ronald H. W. Hoppe, and Peter Monk, editors. *Computational Electromagnetics: Proceedings of the GAMM Workshop on Computational Electromagnetics, Kiel, Germany, January 26–28, 2001*, volume 28 of *Lecture Notes in Computational Science and Engineering*. Springer-Verlag Inc., New York, NY, USA, 2003. CODEN LNCSA6. ISBN 3-540-44392-4 (print), 3-642-55745-7 (e-book). ISSN 1439-7358 (print), 2197-7100 (electronic). LCCN QC665.E4 G35 2001. URL <http://link.springer.com/book/10.1007/978-3-642-55745-3>; <http://www.springerlink.com/content/978-3-642-55745-3>.

Chartier:2007:SEA

[CFH⁺07] Timothy Chartier, Robert Falgout, Van Emden Henson, Jim E. Jones, and Tom A. Manteuffel. Spectral element agglomerate AMGe. In Widlund and Keyes [WK07], pages 513–521. CODEN LNCSA6. ISBN 3-540-34468-3 (print), 3-540-34469-1 (e-book). ISSN 1439-7358 (print), 2197-7100 (electronic). LCCN QA402.2 .I55 2005. URL http://link.springer.com/content/pdf/10.1007/978-3-540-34469-8_64. Proceedings of the *Sixteenth International Conference on Domain Decomposition Methods*, New York City, January 11–15, 2005.

Clavero:2011:UCF

[CG11] C. Clavero and J. L. Gracia. Uniformly convergent finite difference schemes for singularly perturbed 1D parabolic reaction-diffusion problems. In Clavero et al. [CGL11], pages 75–83. CODEN LNCSA6. ISBN 3-642-19664-0 (print), 3-642-19665-9 (e-book). ISSN 1439-7358 (print), 2197-7100 (electronic). LCCN ???? URL http://link.springer.com/content/pdf/10.1007/978-3-642-19665-2_9. Selected papers from the proceedings of BAIL 2010 (Boundary and Interior Layers — Computational and Asymptotic Methods), held from 5 to 9 July 2010 at the University of Zaragoza, Spain.

Caboussat:2015:NAF

- [CG15] Alexandre Caboussat and Roland Glowinski. A numerical algorithm for a fully nonlinear PDE involving the Jacobian determinant. In Abdulle et al. [ADK⁺15], pages 143–151. ISBN 3-319-10704-6 (paperback), 3-319-10705-4 (e-book). ISSN 1439-7358 (print), 2197-7100 (electronic). LCCN QA76.9.M35.E976 2015. URL http://link.springer.com/chapter/10.1007/978-3-319-10705-9_14/.

Cecere:2007:LES

- [CGDV07] D. Cecere, G. Gaudioso, A. D’Anna, and R. Verzicco. Large eddy simulation of a turbulent Ethylene/ air diffusion flame. In Kassinos et al. [KLIM07], pages 385–399. CODEN LNCSA6. ISBN 3-540-34233-8 (print), 3-540-34234-6 (e-book). ISSN 1439-7358 (print), 2197-7100 (electronic). LCCN TA357.5.T87 C66 2007. URL http://link.springer.com/content/pdf/10.1007/978-3-540-34234-2_27. Proceedings of the symposium on *Complex Effects in Large Eddy Simulation* held in Lemesos (Limassol), Cyprus, September 21–24, 2005.

Cusulin:2008:DDM

- [CGG08] Caterina Cusulin and Luca Gerardo-Giorda. A domain decomposition method for the diffusion of an age-structured population in a multilayer environment. In Langer et al. [LDK⁺08], pages 459–466. CODEN LNCSA6. ISBN 3-540-75198-X (print), 3-540-75199-8 (e-book). ISSN 1439-7358 (print), 2197-7100 (electronic). LCCN QA402.2 .I55 2006. URL http://link.springer.com/content/pdf/10.1007/978-3-540-75199-1_58. 17th International Conference on Domain Decomposition Methods held at St. Wolfgang/Strobl, Austria, July 3–7, 2006.

Caetano:2011:SWR

- [CGHS11] Filipa Caetano, Martin J. Gander, Laurence Halpern, and Jérémie Szeftel. Schwarz waveform relaxation algorithms with nonlinear transmission conditions for reaction-diffusion equations. In Huang et al. [HKWX11], pages 245–252. CODEN LNCSA6. ISBN 3-642-11303-6 (print), 3-642-11304-4 (e-book). ISSN 1439-7358 (print), 2197-7100 (electronic). LCCN QA402.2 .I58 2011. URL http://link.springer.com/content/pdf/10.1007/978-3-642-11304-8_27. Papers presented at the 19th International Conference on Domain

Decomposition, DD19, hosted by the School of Mathematics and Computational Science of the Xiangtan University and the Hunan Key Laboratory for Computation and Simulation in Science and Engineering and held in Zhanjiajie, China, August 17–22, 2009.

Clavero:2009:HOS

- [CGL09] C. Clavero, J. L. Gracia, and F. J. Lisbona. High order schemes for reaction-diffusion singularly perturbed systems. In Hegarty et al. [HKOS09], pages 107–115. CODEN LNCSA6. ISBN 3-642-00604-3 (print), 3-642-00605-1 (e-book). ISSN 1439-7358 (print), 2197-7100 (electronic). LCCN ????. URL http://link.springer.com/content/pdf/10.1007/978-3-642-00605-0_7.

Clavero:2011:BBI

- [CGL11] Carmelo Clavero, José Luis Gracia, and Francisco J. Lisbona, editors. *BAIL 2010 — Boundary and Interior Layers, Computational and Asymptotic Methods*, volume 81 of *Lecture Notes in Computational Science and Engineering*. Springer-Verlag Inc., New York, NY, USA, 2011. CODEN LNCSA6. ISBN 3-642-19664-0 (print), 3-642-19665-9 (e-book). ISSN 1439-7358 (print), 2197-7100 (electronic). LCCN ????. URL <http://link.springer.com/book/10.1007/978-3-642-19665-2>; <http://www.springerlink.com/content/978-3-642-19665-2>. Selected papers from the proceedings of BAIL 2010 (Boundary and Interior Layers — Computational and Asymptotic Methods), held from 5 to 9 July 2010 at the University of Zaragoza, Spain.

Cote:2005:CDN

- [CGLL05] J. Côté, M. J. Gander, L. Laayouni, and S. Loisel. Comparison of the Dirichlet–Neumann and optimal Schwarz method on the sphere. In Kornhuber et al. [KHP+05], pages 235–242. CODEN LNCSA6. ISBN 3-540-22523-4 (print), 3-540-26825-1 (e-book). ISSN 1439-7358 (print), 2197-7100 (electronic). LCCN QA402.2 .I55 2003. URL http://link.springer.com/content/pdf/10.1007/3-540-26825-1_21. Papers from the 15th International Conference on Domain Decomposition, Freie Universität Berlin (FU), Berlin, Germany, July 21–25, 2003.

Cote:2007:OSM

- [CGLQ07] Jean Côté, Martin J. Gander, Lahcen Laayouni, and Abdessamad Qaddouri. Optimized Schwarz methods in spherical geometry with an overset grid system. In Widlund and Keyes [WK07], pages 165–172. CODEN LNCSA6. ISBN 3-540-34468-3 (print), 3-540-34469-1 (e-book). ISSN 1439-7358 (print), 2197-7100 (electronic). LCCN QA402.2 .I55 2005. URL http://link.springer.com/content/pdf/10.1007/978-3-540-34469-8_16. Proceedings of the *Sixteenth International Conference on Domain Decomposition Methods*, New York City, January 11–15, 2005.

Chen:2008:DDN

- [CGP08] Hong Quan Chen, Roland Glowinski, and Jacques Périaux. A domain decomposition/Nash equilibrium methodology for the solution of direct and inverse problems in fluid dynamics with evolutionary algorithms. In Langer et al. [LDK⁺08], pages 21–32. CODEN LNCSA6. ISBN 3-540-75198-X (print), 3-540-75199-8 (e-book). ISSN 1439-7358 (print), 2197-7100 (electronic). LCCN QA402.2 .I55 2006. URL http://link.springer.com/content/pdf/10.1007/978-3-540-75199-1_2. 17th International Conference on Domain Decomposition Methods held at St. Wolfgang/Strobl, Austria, July 3–7, 2006.

Chen:2005:DEC

- [CGPT05] H. Q. Chen, R. Glowinski, J. Periaux, and J. Toivanen. Domain Embedding/ controllability methods for the conjugate gradient solution of wave propagation problems. In Kornhuber et al. [KHP⁺05], pages 537–546. CODEN LNCSA6. ISBN 3-540-22523-4 (print), 3-540-26825-1 (e-book). ISSN 1439-7358 (print), 2197-7100 (electronic). LCCN QA402.2 .I55 2003. URL http://link.springer.com/content/pdf/10.1007/3-540-26825-1_56. Papers from the 15th International Conference on Domain Decomposition, Freie Universität Berlin (FU), Berlin, Germany, July 21–25, 2003.

Chahlaoui:2005:MRS

- [CGVV05] Younes Chahlaoui, Kyle A. Gallivan, Antoine Vandendorpe, and Paul Van Dooren. Model reduction of second-order systems. In Benner et al. [BMS05c], pages 149–172. CODEN LNCSA6. ISBN 3-540-24545-6 (print), 3-540-27909-1 (e-book). ISSN 1439-7358 (print), 2197-7100 (electronic).

LCCN TA347.C68 D56 2005. URL http://link.springer.com/content/pdf/10.1007/3-540-27909-1_6.

Carranza:2000:ADG

- [CH00] F. L. Carranza and R. B. Haber. An adaptive discontinuous Galerkin model for coupled viscoplastic crack growth and chemical transport. In Cockburn et al. [CKS00b], pages 277–283. CODEN LNCSA6. ISBN 3-540-66787-3, 3-642-64098-2 (print), 3-642-59721-1 (e-book). ISSN 1439-7358 (print), 2197-7100 (electronic). LCCN TA347.F5 D57 2000. URL http://link.springer.com/chapter/10.1007/978-3-642-59721-3_22/. Papers from the first international symposium on DGM Newport, Rhode Island, USA, May 24–26, 1999.

Cox:2003:MGO

- [CH03] Steven E. Cox and Raphael T. Haftka. Multifidelity global optimization using DIRECT. In Biegler et al. [BGHvBW03a], pages 80–92. CODEN LNCSA6. ISBN 3-540-05045-0 (print), 3-642-55508-X (e-book). ISSN 1439-7358 (print), 2197-7100 (electronic). LCCN QA402.5 .L358 2003. URL http://link.springer.com/content/pdf/10.1007/978-3-642-55508-4_5.

Chernov:2011:HNM

- [CH11] Alexey Chernov and Peter Hansbo. An hp -Nitsche’s method for interface problems with nonconforming unstructured finite element meshes. In Hesthaven and Rønquist [HR11], pages 153–161. CODEN LNCSA6. ISBN 3-642-15336-4 (print), 3-642-15337-2 (e-book). ISSN 1439-7358 (print), 2197-7100 (electronic). LCCN ???? URL http://link.springer.com/content/pdf/10.1007/978-3-642-15337-2_12.

Cheng:2000:VGV

- [Che00] R. Holland Cheng. Visualization on the Grid of virus-host interaction. In Engquist et al. [EJHS00], pages 141–153. CODEN LNCSA6. ISBN 3-540-67264-8 (print), 3-642-57313-4 (e-book). ISSN 1439-7358 (print), 2197-7100 (electronic). LCCN QA76.9.C65 S535 2000. URL http://link.springer.com/chapter/10.1007/978-3-642-57313-2_16/.

Chen:2002:NRC

- [Che02] Wen Chen. New RBF collocation methods and kernel RBF with applications. In Griebel and Schweitzer [GS02b], pages 75–86. CODEN LNCSA6. ISBN 3-540-43891-2 (print), 3-642-56103-9 (e-book). ISSN 1439-7358 (print), 2197-7100 (electronic). LCCN QA377 .M45 2003. URL http://link.springer.com/content/pdf/10.1007/978-3-642-56103-0_6. Proceedings of a workshop on Meshfree Methods for Partial Differential Equations, Institut für Angewandte Mathematik, Rheinische Friedrich-Wilhelms Universität Bonn, September 11–14, 2001.

Chen:2005:ABP

- [Che05] Yurong Chen. An accelerated block-parallel Newton method via overlapped partitioning. In Kornhuber et al. [KHP⁺05], pages 547–554. CODEN LNCSA6. ISBN 3-540-22523-4 (print), 3-540-26825-1 (e-book). ISSN 1439-7358 (print), 2197-7100 (electronic). LCCN QA402.2 .I55 2003. URL http://link.springer.com/content/pdf/10.1007/3-540-26825-1_57. Papers from the 15th International Conference on Domain Decomposition, Freie Universität Berlin (FU), Berlin, Germany, July 21–25, 2003.

Chen:2008:PEA

- [Che08] Z. Chen. A posteriori error analysis and adaptive finite element methods for electromagnetic and acoustic problems. In Ammari [Amm08], pages 39–64. CODEN LNCSA6. ISBN 3-540-73777-4 (print), 3-540-73778-2 (e-book). ISSN 1439-7358 (print), 2197-7100 (electronic). LCCN QC760.4.M37 M63 2008. URL http://link.springer.com/content/pdf/10.1007/978-3-540-73778-0_2.

Chen:2011:DXZ

- [Che11] Long Chen. Deriving the X–Z identity from auxiliary space method. In Huang et al. [HKWX11], pages 309–316. CODEN LNCSA6. ISBN 3-642-11303-6 (print), 3-642-11304-4 (e-book). ISSN 1439-7358 (print), 2197-7100 (electronic). LCCN QA402.2 .I58 2011. URL http://link.springer.com/content/pdf/10.1007/978-3-642-11304-8_35. Papers presented at the 19th International Conference on Domain Decomposition, DD19, hosted by the School of Mathematics and Computational Science of the Xiangtan University and the Hunan Key Laboratory for Computation and Simulation

in Science and Engineering and held in Zhanjiajie, China, August 17–22, 2009.

Chipot:2006:FEC

- [Chi06] Christophe Chipot. Free energy calculations in biological systems. how useful are they in practice? In Leimkuhler et al. [LCE⁺06], pages 185–211. CODEN LNCSA6. ISBN 3-540-25542-7 (print), 3-540-31618-3 (e-book). ISSN 1439-7358 (print), 2197-7100 (electronic). LCCN QP517.M3 N49 2006. URL http://link.springer.com/content/pdf/10.1007/3-540-31618-3_12. Papers from the fourth edition of *Algorithms for Macromolecular Modelling*, Leicester, UK August 2004.

Chiavazzo:2011:ASC

- [Chi11] Eliodoro Chiavazzo. Adaptive simplification of complex systems: a review of the relaxation-redistribution approach. In Gorban and Roose [GR11b], pages 231–240. CODEN LNCSA6. ISBN 3-642-14940-5 (print), 3-642-14941-3 (e-book). ISSN 1439-7358 (print), 2197-7100 (electronic). LCCN QA401 .C67 2011. URL http://link.springer.com/content/pdf/10.1007/978-3-642-14941-2_11. Extended versions of selected talks given at the international research workshop: *Coping with Complexity: Model Reduction and Data Analysis*, Ambleside, Lake District, UK, August 31–September 4, 2009 in conjunction with the A4A6, the 6th *Conference on Algorithms for Approximation*.

Chen:2011:SRB

- [CHM11] Yanlai Chen, Jan S. Hesthaven, and Yvon Maday. A seamless reduced basis element method for 2D Maxwell’s problem: an introduction. In Hesthaven and Rønquist [HR11], pages 141–152. CODEN LNCSA6. ISBN 3-642-15336-4 (print), 3-642-15337-2 (e-book). ISSN 1439-7358 (print), 2197-7100 (electronic). LCCN ???? URL http://link.springer.com/content/pdf/10.1007/978-3-642-15337-2_11.

Chen:2012:IPA

- [CHM12] Jieqiu Chen, Paul Hovland, and Todd Munson. An integer programming approach to optimal derivative accumulation. In Forth et al. [FHP⁺12], pages 221–231. CODEN LNCSA6. ISBN 3-642-30022-7 (print), 3-642-30023-5 (e-book). ISSN 1439-7358 (print), 2197-7100 (electronic). LCCN

???? URL http://link.springer.com/content/pdf/10.1007/978-3-642-30023-3_20. Proceedings of the Sixth International Conference on Automatic Differentiation (AD2012) held July 23–27, 2012, in Fort Collins, Colorado, USA.

Choi:2005:MRC

- [Cho05] Dae-Il Dale Choi. Mesh refinement calculations of gravitational waves and black holes in 3-dimensions. In Plewa et al. [PLW05], pages 453–461. CODEN LNCSA6. ISBN 3-540-21147-0 (print), 3-540-27039-6 (e-book). ISSN 1439-7358 (print), 2197-7100 (electronic). LCCN QA377 .C46 2003. URL http://link.springer.com/content/pdf/10.1007/3-540-27039-6_34.

Chen:2007:SSS

- [CHP⁺07] J. S. Chen, W. Hu, M. A. Puso, Y. Wu, and X. Zhang. Strain smoothing for stabilization and regularization of Galerkin meshfree methods. In Griebel and Schweitzer [GS07b], pages 57–75. CODEN LNCSA6. ISBN 3-540-46214-7 (print), 3-540-46222-8 (e-book). ISSN 1439-7358 (print), 2197-7100 (electronic). LCCN QA377 .M45 2005. URL http://link.springer.com/content/pdf/10.1007/978-3-540-46222-4_4. Third international workshop on Meshfree Methods for Partial Differential Equations held from September 12 to September 15, 2005 in Bonn, Germany.

Chrisochoides:2006:PMG

- [Chr06] Nikos Chrisochoides. Parallel mesh generation. In Bruaset and Tveito [BT06], pages 237–264. CODEN LNCSA6. ISBN 3-540-29076-1 (print), 3-540-31619-1 (e-book). ISSN 1439-7358 (print), 2197-7100 (electronic). LCCN QA377 .N87 2006. URL http://link.springer.com/content/pdf/10.1007/3-540-31619-1_7.

Christianson:2012:LNA

- [Chr12] Bruce Christianson. A Leibniz notation for automatic differentiation. In Forth et al. [FHP⁺12], pages 1–9. CODEN LNCSA6. ISBN 3-642-30022-7 (print), 3-642-30023-5 (e-book). ISSN 1439-7358 (print), 2197-7100 (electronic). LCCN ????? URL http://link.springer.com/content/pdf/10.1007/978-3-642-30023-3_1. Proceedings of the Sixth International Conference on Automatic Differentiation (AD2012) held July 23–27, 2012, in Fort Collins, Colorado, USA.

Cockburn:2000:UMS

- [CJS00] Bernardo Cockburn, Joseph W. Jerome, and Chi-Wang Shu. The utility of modeling and simulation in determining transport performance properties of semiconductors. In Cockburn et al. [CKS00b], pages 147–156. CODEN LNCSA6. ISBN 3-540-66787-3, 3-642-64098-2 (print), 3-642-59721-1 (e-book). ISSN 1439-7358 (print), 2197-7100 (electronic). LCCN TA347.F5 D57 2000. URL http://link.springer.com/chapter/10.1007/978-3-642-59721-3_10/. Papers from the first international symposium on DGM Newport, Rhode Island, USA, May 24–26, 1999.

Cruz:2011:FMM

- [CKB11] F. A. Cruz, M. G. Knepley, and L. A. Barba. Fast Multipole Method for particle interactions: an open source parallel library component. In Tromeur-Dervout et al. [TDBEE11], pages 285–292. CODEN LNCSA6. ISBN 3-642-14437-3 (print), 3-642-14438-1 (e-book). ISSN 1439-7358 (print), 2197-7100 (electronic). LCCN ???? URL http://link.springer.com/content/pdf/10.1007/978-3-642-14438-7_30. Proceedings of the twentieth meeting, Parallel CFD 2008, held May 19–22, 2008 in Lyon, France.

Copeland:2011:DDS

- [CKL11] Dylan Copeland, Michael Kolmbauer, and Ulrich Langer. Domain decomposition solvers for frequency-domain finite element equations. In Huang et al. [HKWX11], pages 301–308. CODEN LNCSA6. ISBN 3-642-11303-6 (print), 3-642-11304-4 (e-book). ISSN 1439-7358 (print), 2197-7100 (electronic). LCCN QA402.2 .I58 2011. URL http://link.springer.com/content/pdf/10.1007/978-3-642-11304-8_34. Papers presented at the 19th International Conference on Domain Decomposition, DD19, hosted by the School of Mathematics and Computational Science of the Xiangtan University and the Hunan Key Laboratory for Computation and Simulation in Science and Engineering and held in Zhanjiajie, China, August 17–22, 2009.

Cai:2013:NST

- [CKM⁺13] Quanji Cai, Sheema Kooshapur, Michael Manhart, Ralf-Peter Mundani, Ernst Rank, Andreas Springer, and Boris Vexler. Numerical simulation of transport in porous media:

Some problems from micro to macro scale. In Bader et al. [BBW13], pages 57–80. ISBN 3-642-38761-6, 3-642-38762-4 (e-book). ISSN 1439-7358 (print), 2197-7100 (electronic). LCCN ???? URL http://link.springer.com/chapter/10.1007/978-3-642-38762-3_3/.

Cockburn:2000:DDG

- [CKS00a] Bernardo Cockburn, George E. Karniadakis, and Chi-Wang Shu. The development of discontinuous Galerkin methods. In *Discontinuous Galerkin Methods: Theory, Computation and Applications* [CKS00b], pages 3–50. CODEN LNCSA6. ISBN 3-540-66787-3, 3-642-64098-2 (print), 3-642-59721-1 (e-book). ISSN 1439-7358 (print), 2197-7100 (electronic). LCCN TA347.F5 D57 2000. URL http://link.springer.com/chapter/10.1007/978-3-642-59721-3_1/. Papers from the first international symposium on DGM Newport, Rhode Island, USA, May 24–26, 1999.

Cockburn:2000:DGM

- [CKS00b] Bernardo Cockburn, George E. Karniadakis, and Chi-Wang Shu, editors. *Discontinuous Galerkin Methods: Theory, Computation and Applications*, volume 11 of *Lecture Notes in Computational Science and Engineering*. Springer-Verlag Inc., New York, NY, USA, 2000. CODEN LNCSA6. ISBN 3-540-66787-3, 3-642-64098-2 (print), 3-642-59721-1 (e-book). ISSN 1439-7358 (print), 2197-7100 (electronic). LCCN TA347.F5 D57 2000. URL <http://link.springer.com/book/10.1007/978-3-540-66787-2>; <http://link.springer.com/book/10.1007/978-3-642-59721-3>; <http://www.springerlink.com/content/978-3-642-59721-3>. Papers from the first international symposium on DGM Newport, Rhode Island, USA, May 24–26, 1999.

Calhoun:2005:ASM

- [CL05a] D. Calhoun and R. J. LeVeque. An accuracy study of mesh refinement on mapped grids. In Plewa et al. [PLW05], pages 91–101. CODEN LNCSA6. ISBN 3-540-21147-0 (print), 3-540-27039-6 (e-book). ISSN 1439-7358 (print), 2197-7100 (electronic). LCCN QA377 .C46 2003. URL http://link.springer.com/content/pdf/10.1007/3-540-27039-6_6.

Chow:2005:EPR

- [CL05b] Peter Chow and Choi-Hong Lai. Electronic packaging and re-

duction in modelling time using domain decomposition. In Kornhuber et al. [KHP⁺05], pages 193–200. CODEN LNCSA6. ISBN 3-540-22523-4 (print), 3-540-26825-1 (e-book). ISSN 1439-7358 (print), 2197-7100 (electronic). LCCN QA402.2 .I55 2003. URL http://link.springer.com/content/pdf/10.1007/3-540-26825-1_16. Papers from the 15th International Conference on Domain Decomposition, Freie Universität Berlin (FU), Berlin, Germany, July 21–25, 2003.

Cai:2006:PPS

- [CL06a] Xing Cai and Hans Petter Langtangen. Parallelizing PDE solvers using the Python programming language. In Bruaset and Tveito [BT06], pages 295–325. CODEN LNCSA6. ISBN 3-540-29076-1 (print), 3-540-31619-1 (e-book). ISSN 1439-7358 (print), 2197-7100 (electronic). LCCN QA377 .N87 2006. URL http://link.springer.com/content/pdf/10.1007/3-540-31619-1_9.

Cai:2006:FSS

- [CL06b] Xing Cai and Glenn Terje Lines. Full-scale simulation of cardiac electrophysiology on parallel computers. In Bruaset and Tveito [BT06], pages 385–411. CODEN LNCSA6. ISBN 3-540-29076-1 (print), 3-540-31619-1 (e-book). ISSN 1439-7358 (print), 2197-7100 (electronic). LCCN QA377 .N87 2006. URL http://link.springer.com/content/pdf/10.1007/3-540-31619-1_11.

Charpentier:2008:DAE

- [CL08] Isabelle Charpentier and Arnaud Lejeune. The diamant approach for an efficient automatic differentiation of the asymptotic numerical method. In Bischof et al. [BBH⁺08], pages 139–149. CODEN LNCSA6. ISBN 3-540-68935-4 (print), 3-540-68942-7 (e-book). ISSN 1439-7358 (print), 2197-7100 (electronic). LCCN QA304 .I58 2008. URL http://link.springer.com/content/pdf/10.1007/978-3-540-68942-3_13.

Chen:2011:PEE

- [CL11] Yanping Chen and Zuliang Lu. A posteriori error estimates for semilinear boundary control problems. In Huang et al. [HKWX11], pages 455–462. CODEN LNCSA6. ISBN 3-642-11303-6 (print), 3-642-11304-4 (e-book). ISSN 1439-7358 (print), 2197-7100 (electronic). LCCN QA402.2 .I58

2011. URL http://link.springer.com/content/pdf/10.1007/978-3-642-11304-8_53. Papers presented at the 19th International Conference on Domain Decomposition, DD19, hosted by the School of Mathematics and Computational Science of the Xiangtan University and the Hunan Key Laboratory for Computation and Simulation in Science and Engineering and held in Zhanjiajie, China, August 17–22, 2009.

Carothers:2012:CBP

- [CL12a] David C. Carothers and Stephen K. Lucas. Connections between power series methods and automatic differentiation. In Forth et al. [FHP⁺12], pages 175–185. CODEN LNCSA6. ISBN 3-642-30022-7 (print), 3-642-30023-5 (e-book). ISSN 1439-7358 (print), 2197-7100 (electronic). LCCN ????. URL http://link.springer.com/content/pdf/10.1007/978-3-642-30023-3_16. Proceedings of the Sixth International Conference on Automatic Differentiation (AD2012) held July 23–27, 2012, in Fort Collins, Colorado, USA.

Cecka:2012:FMM

- [CL12b] Cristopher Cecka and Pierre-David Létourneau. Fast multipole method using the Cauchy integral formula. In Engquist et al. [ERT12], pages 127–144. CODEN LNCSA6. ISBN 3-642-21942-X (print), 3-642-21943-8 (e-book). ISSN 1439-7358 (print), 2197-7100 (electronic). LCCN ????. URL http://link.springer.com/content/pdf/10.1007/978-3-642-21943-6_6.

Cleri:2009:MMB

- [Cle09] Fabrizio Cleri. Microscopic mechanics of biomolecules in living cells. In Yip and Diaz de la Rubia [YD09], pages 339–362. CODEN LNCSA6. ISBN 1-4020-9740-9 (print), 1-4020-9741-7 (e-book). ISSN 1439-7358 (print), 2197-7100 (electronic). LCCN ????. URL http://link.springer.com/content/pdf/10.1007/978-1-4020-9741-6_18. Previously published in *Scientific Modeling and Simulations*, Volume 15, Issues 1–3, 2008.

Clouse:2006:PDN

- [Clo06] C. J. Clouse. Parallel deterministic neutron transport with AMR. In Graziani [Gra06], pages 499–512. CODEN LNCSA6. ISBN 3-540-28122-3 (print), 3-540-28125-8 (e-book). ISSN 1439-7358 (print), 2197-7100 (electronic). LCCN MLCM

2006/40189 (Q); QC793.3.T7 C66 2006. URL http://link.springer.com/content/pdf/10.1007/3-540-28125-8_25.

Copeland:2009:BED

- [CLP09] Dylan Copeland, Ulrich Langer, and David Pusch. From the boundary element domain decomposition methods to local Trefftz finite element methods on polyhedral meshes. In Bercovier et al. [BGKW09], pages 315–322. CODEN LNCSA6. ISBN 3-642-02676-1 (print), 3-642-02677-X (e-book). ISSN 1439-7358 (print), 2197-7100 (electronic). LCCN QA402.2 .I584 2009. URL http://link.springer.com/content/pdf/10.1007/978-3-642-02677-5_35.

Cances:2012:MOM

- [CLS12] Éric Cancès, Mathieu Lewin, and Gabriel Stoltz. The microscopic origin of the macroscopic dielectric permittivity of crystals: a mathematical viewpoint. In Engquist et al. [ERT12], pages 87–125. CODEN LNCSA6. ISBN 3-642-21942-X (print), 3-642-21943-8 (e-book). ISSN 1439-7358 (print), 2197-7100 (electronic). LCCN ???? URL http://link.springer.com/content/pdf/10.1007/978-3-642-21943-6_5.

Cockburn:2000:PPG

- [CLSS00] Bernardo Cockburn, Mitchell Luskin, Chi-Wang Shu, and Endre Süli. Post-processing of Galerkin methods for hyperbolic problems. In Cockburn et al. [CKS00b], pages 291–300. CODEN LNCSA6. ISBN 3-540-66787-3, 3-642-64098-2 (print), 3-642-59721-1 (e-book). ISSN 1439-7358 (print), 2197-7100 (electronic). LCCN TA347.F5 D57 2000. URL http://link.springer.com/chapter/10.1007/978-3-642-59721-3_24/. Papers from the first international symposium on DGM Newport, Rhode Island, USA, May 24–26, 1999.

Chen:2014:GBP

- [CLY⁺14] Zhangxin Chen, Hui Liu, Song Yu, Ben Hsieh, and Lei Shao. GPU-based parallel reservoir simulators. In Erhel et al. [EGH⁺14], pages 199–206. ISBN 3-319-05788-X (paperback), 3-319-05789-8 (e-book). ISSN 1439-7358 (print), 2197-7100 (electronic). LCCN QA71-90. URL http://link.springer.com/chapter/10.1007/978-3-319-05789-7_16/.

Cai:2008:ODD

- [CLZ08] Xiao-Chuan Cai, Si Liu, and Jun Zou. An overlapping domain decomposition method for parameter identification problems. In Langer et al. [LDK⁺08], pages 451–458. CODEN LNCSA6. ISBN 3-540-75198-X (print), 3-540-75199-8 (e-book). ISSN 1439-7358 (print), 2197-7100 (electronic). LCCN QA402.2 .I55 2006. URL http://link.springer.com/content/pdf/10.1007/978-3-540-75199-1_57. 17th International Conference on Domain Decomposition Methods held at St. Wolfgang/Strobl, Austria, July 3–7, 2006.

Caboussat:2003:NST

- [CM03a] Alexandre Caboussat and Vincent Maronnier. Numerical simulation of three dimensional free surface flows with bubbles. In Bänsch [Bän03], pages 69–86. CODEN LNCSA6. ISBN 3-642-62406-5 (print), 3-642-19014-6 (e-book). ISSN 1439-7358 (print), 2197-7100 (electronic). LCCN ????? URL http://link.springer.com/content/pdf/10.1007/978-3-642-19014-8_4.

Colton:2003:HWF

- [CM03b] David Colton and Peter Monk. Herglotz wave functions in inverse electromagnetic scattering theory. In Ainsworth et al. [ADD⁺03], pages 367–394. CODEN LNCSA6. ISBN 3-540-00744-X (print), 3-642-55483-0 (e-book). ISSN 1439-7358 (print), 2197-7100 (electronic). LCCN QC661 .T67 2003. URL http://link.springer.com/content/pdf/10.1007/978-3-642-55483-4_10. Proceedings of the LMS Durham Symposium on Computational Methods for Wave Propagation in Direct Scattering University of Durham, 15–25 July 2002.

Caillol:2009:NSK

- [CM09] Philippe Caillol and Sherwin A. Maslowe. Nonlinear singular Kelvin modes in a columnar vortex. In Hegarty et al. [HKOS09], pages 95–105. CODEN LNCSA6. ISBN 3-642-00604-3 (print), 3-642-00605-1 (e-book). ISSN 1439-7358 (print), 2197-7100 (electronic). LCCN ????? URL http://link.springer.com/content/pdf/10.1007/978-3-642-00605-0_6.

Chadha:2011:TWS

- [CM11] Naresh M. Chadha and Niall Madden. A two-weight scheme for a time-dependent advection-diffusion problem. In Clavero et al. [CGL11], pages 99–108. CODEN LNCSA6. ISBN 3-642-19664-0 (print), 3-642-19665-9 (e-book). ISSN 1439-7358 (print), 2197-7100 (electronic). LCCN ????. URL http://link.springer.com/content/pdf/10.1007/978-3-642-19665-2_11. Selected papers from the proceedings of BAIL 2010 (Boundary and Interior Layers — Computational and Asymptotic Methods), held from 5 to 9 July 2010 at the University of Zaragoza, Spain.

Chen:2012:IAN

- [CM12] Qiang Chen and Peter Monk. Introduction to applications of numerical analysis in time domain computational electromagnetism. In Blowey and Jensen [BJ12], pages 149–225. CODEN LNCSA6. ISBN 3-642-23913-7 (print), 3-642-23914-5 (e-book). ISSN 1439-7358 (print), 2197-7100 (electronic). LCCN ????. URL http://link.springer.com/content/pdf/10.1007/978-3-642-23914-4_3. Proceedings of the Twelfth LMS–EPSRC Summer School in Computational Mathematics and Scientific Computation held at the University of Durham, UK, 25–31 July 2010.

Chien:2009:PCN

- [CMEA09] S. Chien, G. Makinabakan, A. Ecer, and H. U. Akay. Parallel computing on network of Windows based PCs. In Tuncer et al. [TGEM09], pages 155–162. CODEN LNCSA6. ISBN 3-540-92743-3 (print), 3-540-92744-1 (e-book). ISSN 1439-7358 (print), 2197-7100 (electronic). LCCN ????. URL http://link.springer.com/content/pdf/10.1007/978-3-540-92744-0_19. Parallel CFD 2007 was held in Antalya, Turkey, from May 21 to 24, 2007.

Chien:2011:DLB

- [CMEA11] Stanley Chien, Gun Makinabakan, Akin Ecer, and Hasan Akay. Dynamic load balancing on networked multi-core computers. In Tromeur-Dervout et al. [TDBEE11], pages 339–346. CODEN LNCSA6. ISBN 3-642-14437-3 (print), 3-642-14438-1 (e-book). ISSN 1439-7358 (print), 2197-7100 (electronic). LCCN ????. URL http://link.springer.com/content/pdf/10.1007/978-3-642-14438-7_36. Proceedings of the

twentieth meeting, Parallel CFD 2008, held May 19–22, 2008 in Lyon, France.

Cole-Mullen:2012:SVR

- [CMLU12] Heather Cole-Mullen, Andrew Lyons, and Jean Utke. Storing versus recomputation on multiple DAGs. In Forth et al. [FHP⁺12], pages 197–207. CODEN LNCSA6. ISBN 3-642-30022-7 (print), 3-642-30023-5 (e-book). ISSN 1439-7358 (print), 2197-7100 (electronic). LCCN ???? URL http://link.springer.com/content/pdf/10.1007/978-3-642-30023-3_18. Proceedings of the Sixth International Conference on Automatic Differentiation (AD2012) held July 23–27, 2012, in Fort Collins, Colorado, USA.

Chen:2004:RSC

- [CN04] Jie Chen and Silviu-Iulian Niculescu. Robust stability conditions of quasipolynomials by frequency sweeping. In Niculescu and Gu [NG04], pages 43–60. CODEN LNCSA6. ISBN 3-540-20890-9 (print), 3-642-18482-0 (e-book). ISSN 1439-7358 (print), 2197-7100 (electronic). LCCN TJ213 .A253 2004. URL http://link.springer.com/content/pdf/10.1007/978-3-642-18482-6_3. Most of the chapters are based on the materials presented in the CNRS-NSF Workshop *Advances in Time-Delay Systems* held in Paris in January 22–24, 2003.

Canuto:2015:HOA

- [CNSV15] Claudio Canuto, Ricardo H. Nochetto, Rob Stevenson, and Marco Verani. High-order adaptive Galerkin methods. In Kirby et al. [KBH15], pages 51–72. ISBN 3-319-19799-1, 3-319-19800-9 (e-book). LCCN QA377. URL http://link.springer.com/chapter/10.1007/978-3-319-19800-2_4/.

Chen:2011:MME

- [CNZ11] Long Chen, Ricardo H. Nochetto, and Chen-Song Zhang. Multigrid methods for elliptic obstacle problems on 2D bisection grids. In Huang et al. [HKWX11], pages 229–236. CODEN LNCSA6. ISBN 3-642-11303-6 (print), 3-642-11304-4 (e-book). ISSN 1439-7358 (print), 2197-7100 (electronic). LCCN QA402.2 .I58 2011. URL http://link.springer.com/content/pdf/10.1007/978-3-642-11304-8_25. Papers presented at the 19th International Conference on Domain Decomposition, DD19, hosted by the School of Mathematics

and Computational Science of the Xiangtan University and the Hunan Key Laboratory for Computation and Simulation in Science and Engineering and held in Zhanjiajie, China, August 17–22, 2009.

Caliari:2013:MSM

- [CO13] Marco Caliari and Alexander Ostermann. A meshfree splitting method for soliton dynamics in nonlinear Schrödinger equations. In Griebel and Schweitzer [GS13b], pages 127–139. CODEN LNCSA6. ISBN 3-642-32978-0 (print), 3-642-32979-9 (e-book). ISSN 1439-7358 (print), 2197-7100 (electronic). LCCN QA297 .I58 2011. URL http://link.springer.com/content/pdf/10.1007/978-3-642-32979-1_8. Proceedings of the Sixth International Workshop on Meshfree Methods for Partial Differential Equations, October 4–6, 2011, Bonn, Germany.

Cockburn:1999:DGM

- [Coc99] Bernardo Cockburn. Discontinuous Galerkin methods for convection-dominated problems. In *High order methods for computational physics* [BD99], pages 69–224 (?). CODEN LNCSA6. ISBN 3-540-65893-9 (paperback). ISSN 1439-7358 (print), 2197-7100 (electronic). LCCN QA911 .H46 1999.

Codina:2011:FEA

- [Cod11] Ramon Codina. Finite element approximation of the convection-diffusion equation: Subgrid-scale spaces, local instabilities and anisotropic space–time discretizations. In Clavero et al. [CGL11], pages 85–97. CODEN LNCSA6. ISBN 3-642-19664-0 (print), 3-642-19665-9 (e-book). ISSN 1439-7358 (print), 2197-7100 (electronic). LCCN ???? URL http://link.springer.com/content/pdf/10.1007/978-3-642-19665-2_10. Selected papers from the proceedings of BAIL 2010 (Boundary and Interior Layers — Computational and Asymptotic Methods), held from 5 to 9 July 2010 at the University of Zaragoza, Spain.

Conti:2003:DEF

- [Con03] Massimo Conti. Density effects and fluid flow in phase-field models. In Emmerich et al. [ENS03], page ?? CODEN LNCSA6. ISBN 3-540-40367-1. ISSN 1439-7358 (print), 2197-7100 (electronic). LCCN QC173.4.I57 I57 2003.

URL <http://www.loc.gov/catdir/enhancements/fy0818/2003060231-d.html>. Papers from the workshop on “Computational Physics of Transport and Interfacial Dynamics”, Dresden, February 25–March 8, 2002.

Coult:2000:IDW

- [Cou00] Nicholas Coult. Introduction to discontinuous wavelets. In Cockburn et al. [CKS00b], pages 301–308. CODEN LNCSA6. ISBN 3-540-66787-3, 3-642-64098-2 (print), 3-642-59721-1 (e-book). ISSN 1439-7358 (print), 2197-7100 (electronic). LCCN TA347.F5 D57 2000. URL http://link.springer.com/chapter/10.1007/978-3-642-59721-3_25/. Papers from the first international symposium on DGM Newport, Rhode Island, USA, May 24–26, 1999.

Charmpis:2005:GBS

- [CP05] Dimos C. Charmpis and Manolis Papadrakakis. Generation of balanced subdomain clusters with minimum interface for distributed domain decomposition applications. In Kornhuber et al. [KHP⁺05], pages 555–562. CODEN LNCSA6. ISBN 3-540-22523-4 (print), 3-540-26825-1 (e-book). ISSN 1439-7358 (print), 2197-7100 (electronic). LCCN QA402.2 .I55 2003. URL http://link.springer.com/content/pdf/10.1007/3-540-26825-1_58. Papers from the 15th International Conference on Domain Decomposition, Freie Universität Berlin (FU), Berlin, Germany, July 21–25, 2003.

Croy:2006:LES

- [CRS06] Alexander Croy, Rudolf A. Römer, and Michael Schreiber. Localization of electronic states in amorphous materials: Recursive Green’s function method and the metal-insulator transition at $E \neq 0$. In Hoffmann and Meyer [HM06], pages 203–226. CODEN LNCSA6. ISBN 3-540-33539-0 (print), 3-540-33541-2 (e-book). ISSN 1439-7358 (print), 2197-7100 (electronic). LCCN QA76.58 .P358 2006. URL http://link.springer.com/content/pdf/10.1007/3-540-33541-2_11.

Clees:2003:AMI

- [CS03a] Tanja Clees and Klaus Stüben. Algebraic multigrid for industrial semiconductor device simulation. In Bänsch [Bän03], pages 110–130. CODEN LNCSA6. ISBN 3-642-62406-5 (print), 3-642-19014-6 (e-book). ISSN 1439-7358 (print), 2197-

7100 (electronic). LCCN ???? URL http://link.springer.com/content/pdf/10.1007/978-3-642-19014-8_6.

Cockenbach:2003:ASA

- [CS03b] Mark S. Cockenbach and William W. Symes. Adaptive simulation, the adjoint state method, and optimization. In Biegler et al. [BGHvBW03a], pages 281–297. CODEN LNCSA6. ISBN 3-540-05045-0 (print), 3-642-55508-X (e-book). ISSN 1439-7358 (print), 2197-7100 (electronic). LCCN QA402.5 .L358 2003. URL http://link.springer.com/content/pdf/10.1007/978-3-642-55508-4_17.

Chen:2005:MHA

- [CSX05] Long Chen, Pengtao Sun, and Jinchao Xu. Multilevel homotopic adaptive finite element methods for convection dominated problems. In Kornhuber et al. [KHP⁺05], pages 459–468. CODEN LNCSA6. ISBN 3-540-22523-4 (print), 3-540-26825-1 (e-book). ISSN 1439-7358 (print), 2197-7100 (electronic). LCCN QA402.2 .I55 2003. URL http://link.springer.com/content/pdf/10.1007/3-540-26825-1_47. Papers from the 15th International Conference on Domain Decomposition, Freie Universität Berlin (FU), Berlin, Germany, July 21–25, 2003.

Calugaru:2005:NOD

- [CTD05] Dan-Gabriel Calugaru and Damien Tromeur-Dervout. Non-overlapping DDMs to solve flow in heterogeneous porous media. In Kornhuber et al. [KHP⁺05], pages 529–536. CODEN LNCSA6. ISBN 3-540-22523-4 (print), 3-540-26825-1 (e-book). ISSN 1439-7358 (print), 2197-7100 (electronic). LCCN QA402.2 .I55 2003. URL http://link.springer.com/content/pdf/10.1007/3-540-26825-1_55. Papers from the 15th International Conference on Domain Decomposition, Freie Universität Berlin (FU), Berlin, Germany, July 21–25, 2003.

Chan:2000:DSC

- [CV00] Tony F. Chan and Petr Vanek. Detection of strong coupling in algebraic multigrid solvers. In Dick et al. [DRV00], pages 11–23. CODEN LNCSA6. ISBN 3-540-67157-9 (print), 3-642-58312-1 (e-book). ISSN 1439-7358 (print), 2197-7100 (electronic). LCCN QA377 .E94 1999. URL http://link.springer.com/chapter/10.1007/978-3-642-58312-4_2/.

Chahlaoui:2005:BEM

- [CV05a] Younes Chahlaoui and Paul Van Dooren. Benchmark examples for model reduction of linear time-invariant dynamical systems. In Benner et al. [BMS05c], pages 379–392. CODEN LNCSA6. ISBN 3-540-24545-6 (print), 3-540-27909-1 (e-book). ISSN 1439-7358 (print), 2197-7100 (electronic). LCCN TA347.C68 D56 2005. URL http://link.springer.com/content/pdf/10.1007/3-540-27909-1_24.

Chahlaoui:2005:MRT

- [CV05b] Younes Chahlaoui and Paul Van Dooren. Model reduction of time-varying systems. In Benner et al. [BMS05c], pages 131–148. CODEN LNCSA6. ISBN 3-540-24545-6 (print), 3-540-27909-1 (e-book). ISSN 1439-7358 (print), 2197-7100 (electronic). LCCN TA347.C68 D56 2005. URL http://link.springer.com/content/pdf/10.1007/3-540-27909-1_5.

Collignon:2010:PSC

- [CvG10] Tijmen P. Collignon and Martin B. van Gijzen. Parallel scientific computing on loosely coupled networks of computers. In Koren and Vuik [KV10], pages 79–106. CODEN LNCSA6. ISBN 3-642-03343-1 (print), 3-642-03344-X (e-book). ISSN 1439-7358 (print), 2197-7100 (electronic). LCCN Q183.9 .A35 2010. URL http://link.springer.com/content/pdf/10.1007/978-3-642-03344-5_4.

Chucholowski:1999:RTS

- [CVvSW99] C. Chucholowski, M. Vogel, O. von Stryk, and T.-M. Wolter. Real time simulation and online control for virtual test drives of cars. In Bungartz et al. [BDZ99], pages 157–166. CODEN LNCSA6. ISBN 3-540-65730-4 (print), 3-642-60155-3 (e-book). ISSN 1439-7358 (print), 2197-7100 (electronic). LCCN Q183.9.I58 1998. URL http://link.springer.com/chapter/10.1007/978-3-642-60155-2_13/.

Chen:2005:EMM

- [CW05] Jiun-Shyan Chen and Dongdong Wang. Extended mesh-free method for elastic and inelastic media. In Griebel and Schweitzer [GS05], pages 17–38. CODEN LNCSA6. ISBN 3-540-23026-2 (print), 3-540-27099-X (e-book). ISSN 1439-7358 (print), 2197-7100 (electronic). LCCN QA377 .M452

2005. URL http://link.springer.com/content/pdf/10.1007/3-540-27099-x_2. Proceedings of the Second International Workshop on Meshfree Methods for Partial Differential Equations, Institut für Numerische Simulation Rheinische Friedrich–Wilhelms Universität Bonn, September 15–17, 2003.

Coleman:2012:UDE

- [CXX12] Thomas F. Coleman, Xin Xiong, and Wei Xu. Using directed edge separators to increase efficiency in the determination of Jacobian matrices via automatic differentiation. In Forth et al. [FHP⁺12], pages 209–219. CODEN LNCSA6. ISBN 3-642-30022-7 (print), 3-642-30023-5 (e-book). ISSN 1439-7358 (print), 2197-7100 (electronic). LCCN ????. URL http://link.springer.com/content/pdf/10.1007/978-3-642-30023-3_19. Proceedings of the Sixth International Conference on Automatic Differentiation (AD2012) held July 23–27, 2012, in Fort Collins, Colorado, USA.

Cathalifaud:2011:HRC

- [CZC11] P. Cathalifaud, M. Zagzoule, and J. Cousteix. High Reynolds channel flows: Upstream interaction of various wall deformations. In Clavero et al. [CGL11], pages 65–74. CODEN LNCSA6. ISBN 3-642-19664-0 (print), 3-642-19665-9 (e-book). ISSN 1439-7358 (print), 2197-7100 (electronic). LCCN ????. URL http://link.springer.com/content/pdf/10.1007/978-3-642-19665-2_8. Selected papers from the proceedings of BAIL 2010 (Boundary and Interior Layers — Computational and Asymptotic Methods), held from 5 to 9 July 2010 at the University of Zaragoza, Spain.

DAmbrosio:2015:MVN

- [D'A15] Raffaele D'Ambrosio. Multi-value numerical methods for Hamiltonian systems. In Abdulle et al. [ADK⁺15], pages 185–193. ISBN 3-319-10704-6 (paperback), 3-319-10705-4 (e-book). ISSN 1439-7358 (print), 2197-7100 (electronic). LCCN QA76.9.M35 .E976 2015. URL http://link.springer.com/chapter/10.1007/978-3-319-10705-9_18/.

Dawson:2000:LDG

- [DAC00] Clint Dawson, Vadym Aizinger, and Bernardo Cockburn. The local discontinuous Galerkin method for contaminant transport problems. In Cockburn et al. [CKS00b], pages

309–314. CODEN LNCSA6. ISBN 3-540-66787-3, 3-642-64098-2 (print), 3-642-59721-1 (e-book). ISSN 1439-7358 (print), 2197-7100 (electronic). LCCN TA347.F5 D57 2000. URL http://link.springer.com/chapter/10.1007/978-3-642-59721-3_26/. Papers from the first international symposium on DGM Newport, Rhode Island, USA, May 24–26, 1999.

Denker:2015:AFF

- [DAG15] Dennis Denker, Rick Archibald, and Anne Gelb. An adaptive Fourier filter for relaxing time stepping constraints for explicit solvers. In Kirby et al. [KBH15], pages 157–166. ISBN 3-319-19799-1, 3-319-19800-9 (e-book). LCCN QA377. URL http://link.springer.com/chapter/10.1007/978-3-319-19800-2_12/.

Damelin:2008:BDD

- [Dam08] Steven B. Damelin. On bounds for diffusion, discrepancy and fill distance metrics. In Gorban et al. [GKWZ08], pages 261–270. CODEN LNCSA6. ISBN 3-540-73749-9 (print), 3-540-73750-2 (e-book). ISSN 1439-7358 (print), 2197-7100 (electronic). LCCN QA278.5 .P75 2008. URL http://link.springer.com/content/pdf/10.1007/978-3-540-73750-6_11.

Danilov:2003:PSU

- [Dan03] Denis Danilov. Planar solidification from undercooled melt: An approximation of a dilute binary alloy for a phase-field model. In Emmerich et al. [ENS03], page ?? CODEN LNCSA6. ISBN 3-540-40367-1. ISSN 1439-7358 (print), 2197-7100 (electronic). LCCN QC173.4.I57 I57 2003. URL <http://www.loc.gov/catdir/enhancements/fy0818/2003060231-d.html>. Papers from the workshop on “Computational Physics of Transport and Interfacial Dynamics”, Dresden, February 25–March 8, 2002.

Daoud:2007:SPT

- [Dao07] Daoud S. Daoud. Stability of the Parareal time discretization for parabolic inverse problems. In Widlund and Keyes [WK07], pages 275–282. CODEN LNCSA6. ISBN 3-540-34468-3 (print), 3-540-34469-1 (e-book). ISSN 1439-7358 (print), 2197-7100 (electronic). LCCN QA402.2 .I55 2005. URL http://link.springer.com/content/pdf/10.1007/978-3-540-34469-8_32. Proceedings of the *Sixteenth*

International Conference on Domain Decomposition Methods,
New York City, January 11–15, 2005.

Darve:2006:NMC

- [Dar06] Eric Darve. Numerical methods for calculating the potential of mean force. In Leimkuhler et al. [LCE⁺06], pages 213–249. CODEN LNCSA6. ISBN 3-540-25542-7 (print), 3-540-31618-3 (e-book). ISSN 1439-7358 (print), 2197-7100 (electronic). LCCN QP517.M3 N49 2006. URL http://link.springer.com/content/pdf/10.1007/3-540-31618-3_13. Papers from the fourth edition of *Algorithms for Macromolecular Modelling*, Leicester, UK August 2004.

Datko:2004:EMD

- [Dat04] Richard Datko. Empirical methods for determining the stability of certain linear delay systems. In Niculescu and Gu [NG04], pages 183–192. CODEN LNCSA6. ISBN 3-540-20890-9 (print), 3-642-18482-0 (e-book). ISSN 1439-7358 (print), 2197-7100 (electronic). LCCN TJ213 .A253 2004. URL http://link.springer.com/content/pdf/10.1007/978-3-642-18482-6_13. Most of the chapters are based on the materials presented in the CNRS-NSF Workshop *Advances in Time-Delay Systems* held in Paris in January 22–24, 2003.

Davis:2006:EPK

- [Dav06] Anthony B. Davis. Effective propagation kernels in structured media with broad spatial correlations, illustration with large-scale transport of solar photons through cloudy atmospheres. In Graziani [Gra06], pages 85–140. CODEN LNCSA6. ISBN 3-540-28122-3 (print), 3-540-28125-8 (e-book). ISSN 1439-7358 (print), 2197-7100 (electronic). LCCN MLCM 2006/40189 (Q); QC793.3.T7 C66 2006. URL http://link.springer.com/content/pdf/10.1007/3-540-28125-8_5.

Dawes:2005:PMD

- [Daw05] A. S. Dawes. Parallel multi-dimensional and multi-material Eulerian staggered mesh schemes using localised patched based adaptive mesh refinement (AMR) for strong shock wave phenomena. In Plewa et al. [PLW05], pages 295–302. CODEN LNCSA6. ISBN 3-540-21147-0 (print), 3-540-27039-6 (e-book). ISSN 1439-7358 (print), 2197-7100 (electronic). LCCN QA377 .C46 2003. URL http://link.springer.com/content/pdf/10.1007/3-540-27039-6_20.

Duan:2008:SSP

- [DB08] Qinglin Duan and Ted Belytschko. On the stabilization of stress-point integration in the element free Galerkin method. In Griebel and Schweitzer [GS08d], pages 47–68. CODEN LNCSA6. ISBN 3-540-79993-1 (print), 3-540-79994-X (e-book). ISSN 1439-7358 (print), 2197-7100 (electronic). LCCN ????. URL http://link.springer.com/content/pdf/10.1007/978-3-540-79994-8_4. Fourth International Workshop on Meshfree Methods for Partial Differential Equations held from September 17 to September 20, 2007 in Bonn, Germany.

Delgado-Buscalioni:2012:TMS

- [DB12] Rafael Delgado-Buscalioni. Tools for multiscale simulation of liquids using open molecular dynamics. In Engquist et al. [ERT12], pages 145–166. CODEN LNCSA6. ISBN 3-642-21942-X (print), 3-642-21943-8 (e-book). ISSN 1439-7358 (print), 2197-7100 (electronic). LCCN ????. URL http://link.springer.com/content/pdf/10.1007/978-3-642-21943-6_7.

Dehning:2015:CSD

- [DBK15] Carsten Dehning, Claas Bierwisch, and Torsten Kraft. Co-simulations of discrete and finite element codes. In Griebel and Schweitzer [GS14], pages 61–79. ISBN 3-319-06898-9. LCCN QA71 .G75 2015; QA377. URL http://link.springer.com/chapter/10.1007/978-3-319-06898-5_4/.

Dai:2015:PMM

- [DBLL15] Zili Dai, Miguel A. Bessa, Shaofan Li, and Wing Kam Liu. Particle method modeling of nonlocal multiresolution continua. In Griebel and Schweitzer [GS14], pages 43–60. ISBN 3-319-06898-9. LCCN QA71 .G75 2015; QA377. URL http://link.springer.com/chapter/10.1007/978-3-319-06898-5_3/.

deBoer:2010:RBF

- [dBvZB10] A. de Boer, A. H. van Zuijlen, and H. Bijl. Radial basis functions for interface interpolation and mesh deformation. In Koren and Vuik [KV10], pages 143–178. CODEN LNCSA6. ISBN 3-642-03343-1 (print), 3-642-03344-X (e-book). ISSN 1439-7358 (print), 2197-7100 (electronic). LCCN Q183.9 .A35 2010. URL http://link.springer.com/content/pdf/10.1007/978-3-642-03344-5_6.

Delfs:2012:OF

- [DBW12] Jens-Olaf Delfs, Martin Beinhorn, and Yajie Wu. Overland flow. In Kolditz et al. [KGSW12], pages 143–147. CODEN LNCSA6. ISBN 3-642-27176-6 (print), 3-642-27177-4 (e-book). ISSN 1439-7358 (print), 2197-7100 (electronic). LCCN ????. URL http://link.springer.com/content/pdf/10.1007/978-3-642-27177-9_7.

DelReyFernandez:2015:GSP

- [DBZ15] David C. Del Rey Fernández, Pieter D. Boom, and David W. Zingg. Generalized summation by parts operators: Second derivative and time-marching methods. In Kirby et al. [KBH15], pages 207–215. ISBN 3-319-19799-1, 3-319-19800-9 (e-book). LCCN QA377. URL http://link.springer.com/chapter/10.1007/978-3-319-19800-2_17/.

Durlofsky:2012:UQS

- [DC12] Louis J. Durlofsky and Yuguang Chen. Uncertainty quantification for subsurface flow problems using coarse-scale models. In Graham et al. [GHLS12], pages 163–202. CODEN LNCSA6. ISBN 3-642-22060-6 (print), 3-642-22061-4 (e-book). ISSN 1439-7358 (print), 2197-7100 (electronic). LCCN QA297 .N844 2012. URL http://link.springer.com/content/pdf/10.1007/978-3-642-22061-6_6. Ten invited expository articles from the 91st LMS Durham Symposium on *Numerical Analysis of Multiscale Problems*, Durham, UK, 5–15 July 2010.

Davies:2003:NSC

- [DD03] Penny Davies and Dugald Duncan. Numerical stability of collocation schemes for time domain boundary integral equations. In Carstensen et al. [CFH⁺03], pages 51–67. CODEN LNCSA6. ISBN 3-540-44392-4 (print), 3-642-55745-7 (e-book). ISSN 1439-7358 (print), 2197-7100 (electronic). LCCN QC665.E4 G35 2001. URL http://link.springer.com/content/pdf/10.1007/978-3-642-55745-3_5.

Deparis:2007:HDD

- [DDFQ07] Simone Deparis, Marco Discacciati, Gilles Fourestey, and Alfio Quarteroni. Heterogeneous domain decomposition methods for fluid-structure interaction problems. In Widlund and Keyes [WK07], pages 41–52. CODEN LNCSA6. ISBN

3-540-34468-3 (print), 3-540-34469-1 (e-book). ISSN 1439-7358 (print), 2197-7100 (electronic). LCCN QA402.2 .I55 2005. URL http://link.springer.com/content/pdf/10.1007/978-3-540-34469-8_4. Proceedings of the *Sixteenth International Conference on Domain Decomposition Methods*, New York City, January 11–15, 2005.

Descombes:2011:SWR

- [DDG11] Stéphane Descombes, Victorita Dolean, and Martin J. Gander. Schwarz waveform relaxation methods for systems of semi-linear reaction-diffusion equations. In Huang et al. [HKWX11], pages 423–430. CODEN LNCSA6. ISBN 3-642-11303-6 (print), 3-642-11304-4 (e-book). ISSN 1439-7358 (print), 2197-7100 (electronic). LCCN QA402.2 .I58 2011. URL http://link.springer.com/content/pdf/10.1007/978-3-642-11304-8_49. Papers presented at the 19th International Conference on Domain Decomposition, DD19, hosted by the School of Mathematics and Computational Science of the Xiangtan University and the Hunan Key Laboratory for Computation and Simulation in Science and Engineering and held in Zhanjiajie, China, August 17–22, 2009.

Dahlke:2014:EQI

- [DDG⁺14] Stephan Dahlke, Wolfgang Dahmen, Michael Griebel, Wolfgang Hackbusch, Klaus Ritter, Reinhold Schneider, Christoph Schwab, and Harry Yserentant, editors. *Extraction of Quantifiable Information from Complex Systems*, volume 102 of *Lecture Notes in Computational Science and Engineering*. Springer-Verlag Inc., New York, NY, USA, 2014. ISBN 3-319-08159-4. xix + 432 + 49 pp. LCCN ???? URL <http://www.springerlink.com/content/978-3-319-08159-5>.

Deuffhard:1999:CEM

- [DDJS99] Peter Deuffhard, Michael Dellnitz, Oliver Junge, and Christof Schütte. Computation of essential molecular dynamics by subdivision techniques. In Deuffhard et al. [DHL⁺99], pages 98–115. CODEN LNCSA6. ISBN 3-540-63242-5 (print), 3-642-58360-1 (e-book). ISSN 1439-7358 (print), 2197-7100 (electronic). LCCN QP517.M65 I56 1999. URL http://link.springer.com/chapter/10.1007/978-3-642-58360-5_5/.

Derby:2002:HPC

- [DDKP02] J. J. Derby, P. Daoutidis, Y. Kwon, and A. Pandey. High-performance computing, multi-scale models for crystal growth systems. In Breuer et al. [BDZ02], pages 185–200. CODEN LNCSA6. ISBN 3-540-42946-8 (print), 3-642-55919-0 (e-book). ISSN 1439-7358 (print), 2197-7100 (electronic). LCCN Q183.9 .I58 2001. URL http://link.springer.com/content/pdf/10.1007/978-3-642-55919-8_21.

Datta:2007:STD

- [DDS07] D. K. Datta, Saikat Dey, and Joseph J. Shirron. Scalable three-dimensional acoustics using hp-finite/infinite elements and FETI-DP. In Widlund and Keyes [WK07], pages 523–530. CODEN LNCSA6. ISBN 3-540-34468-3 (print), 3-540-34469-1 (e-book). ISSN 1439-7358 (print), 2197-7100 (electronic). LCCN QA402.2 .I55 2005. URL http://link.springer.com/content/pdf/10.1007/978-3-540-34469-8_65. Proceedings of the *Sixteenth International Conference on Domain Decomposition Methods*, New York City, January 11–15, 2005.

deDios:2014:SDS

- [dDZ14] Blanca Ayuso de Dios and Ludmil Zikatanov. Space decompositions and solvers for discontinuous Galerkin methods. In Erhel et al. [EGH⁺14], pages 3–15. ISBN 3-319-05788-X (paperback), 3-319-05789-8 (e-book). ISSN 1439-7358 (print), 2197-7100 (electronic). LCCN QA71-90. URL http://link.springer.com/chapter/10.1007/978-3-319-05789-7_1/.

DeFanti:2000:GTG

- [DeF00] Tom DeFanti. The Global Technology Grid: Its role in virtual reality. In Engquist et al. [EJHS00], page 81. CODEN LNCSA6. ISBN 3-540-67264-8 (print), 3-642-57313-4 (e-book). ISSN 1439-7358 (print), 2197-7100 (electronic). LCCN QA76.9.C65 S535 2000. URL http://link.springer.com/accesspage/chapter/10.1007/978-3-642-57313-2_8.

Dolean:2011:DDM

- [DEGL11a] Victorita Dolean, Mohamed El Bouajaji, Martin J. Gander, and Stéphane Lanteri. Domain decomposition methods for electromagnetic wave propagation problems in heterogeneous media and complex domains. In Huang et al.

[HKWX11], pages 15–26. CODEN LNCSA6. ISBN 3-642-11303-6 (print), 3-642-11304-4 (e-book). ISSN 1439-7358 (print), 2197-7100 (electronic). LCCN QA402.2 .I58 2011. URL http://link.springer.com/content/pdf/10.1007/978-3-642-11304-8_2. Papers presented at the 19th International Conference on Domain Decomposition, DD19, hosted by the School of Mathematics and Computational Science of the Xiangtan University and the Hunan Key Laboratory for Computation and Simulation in Science and Engineering and held in Zhanjiajie, China, August 17–22, 2009.

Dolean:2011:OSM

[DEGL11b] Victorita Dolean, Mohamed El Bouajaji, Martin J. Gander, and Stéphane Lanteri. Optimized Schwarz methods for Maxwell’s equations with non-zero electric conductivity. In Huang et al. [HKWX11], pages 269–276. CODEN LNCSA6. ISBN 3-642-11303-6 (print), 3-642-11304-4 (e-book). ISSN 1439-7358 (print), 2197-7100 (electronic). LCCN QA402.2 .I58 2011. URL http://link.springer.com/content/pdf/10.1007/978-3-642-11304-8_30. Papers presented at the 19th International Conference on Domain Decomposition, DD19, hosted by the School of Mathematics and Computational Science of the Xiangtan University and the Hunan Key Laboratory for Computation and Simulation in Science and Engineering and held in Zhanjiajie, China, August 17–22, 2009.

Deiterding:2005:CAA

[Dei05] Ralf Deiterding. Construction and application of an AMR algorithm for distributed memory computers. In Plewa et al. [PLW05], pages 361–372. CODEN LNCSA6. ISBN 3-540-21147-0 (print), 3-540-27039-6 (e-book). ISSN 1439-7358 (print), 2197-7100 (electronic). LCCN QA377 .C46 2003. URL http://link.springer.com/content/pdf/10.1007/3-540-27039-6_26.

Demkowicz:2001:EFE

[Dem01] L. Demkowicz. Edge finite elements of variable order for Maxwell’s equations. In van Rienen et al. [vRGH01], pages 15–34. CODEN LNCSA6. ISBN 3-540-42173-4 (softcover), 3-642-56470-4 (e-book). ISSN 1439-7358 (print), 2197-7100 (electronic). LCCN TK5 .S35 2001. URL http://link.springer.com/content/pdf/10.1007/978-3-642-56470-3_2. Selected

contributions presented at the 3rd International Workshop on Scientific Computing in Electrical Engineering.

Demkowicz:2003:HAFa

- [Dem03a] Leszek Demkowicz. *hp*-adaptive finite elements for Maxwell's equations. In Carstensen et al. [CFH⁺03], pages 69–83. CODEN LNCSA6. ISBN 3-540-44392-4 (print), 3-642-55745-7 (e-book). ISSN 1439-7358 (print), 2197-7100 (electronic). LCCN QC665.E4 G35 2001. URL http://link.springer.com/content/pdf/10.1007/978-3-642-55745-3_6.

Demkowicz:2003:HAFb

- [Dem03b] Leszek Demkowicz. *hp*-adaptive finite elements for time-harmonic Maxwell equations. In Ainsworth et al. [ADD⁺03], pages 163–199. CODEN LNCSA6. ISBN 3-540-00744-X (print), 3-642-55483-0 (e-book). ISSN 1439-7358 (print), 2197-7100 (electronic). LCCN QC661 .T67 2003. URL http://link.springer.com/content/pdf/10.1007/978-3-642-55483-4_5. Proceedings of the LMS Durham Symposium on Computational Methods for Wave Propagation in Direct Scattering University of Durham, 15–25 July 2002.

Denk:2002:TNA

- [Den02] G Denk. Transient noise analysis in circuit simulation. In Breuer et al. [BDZ02], pages 361–368. CODEN LNCSA6. ISBN 3-540-42946-8 (print), 3-642-55919-0 (e-book). ISSN 1439-7358 (print), 2197-7100 (electronic). LCCN Q183.9 .I58 2001. URL http://link.springer.com/content/pdf/10.1007/978-3-642-55919-8_39.

Despres:2000:DGM

- [Des00] Bruno Despres. Discontinuous Galerkin method for the numerical solution of Euler equations in axisymmetric geometry. In Cockburn et al. [CKS00b], pages 315–320. CODEN LNCSA6. ISBN 3-540-66787-3, 3-642-64098-2 (print), 3-642-59721-1 (e-book). ISSN 1439-7358 (print), 2197-7100 (electronic). LCCN TA347.F5 D57 2000. URL http://link.springer.com/chapter/10.1007/978-3-642-59721-3_27/. Papers from the first international symposium on DGM Newport, Rhode Island, USA, May 24–26, 1999.

Das:2011:TGM

- [DF11] Payel Das and Thomas A. Frewen. Think globally, move locally: Coarse graining of effective free energy surfaces. In Gurban and Roose [GR11b], pages 113–131. CODEN LNCSA6. ISBN 3-642-14940-5 (print), 3-642-14941-3 (e-book). ISSN 1439-7358 (print), 2197-7100 (electronic). LCCN QA401 .C67 2011. URL http://link.springer.com/content/pdf/10.1007/978-3-642-14941-2_6. Extended versions of selected talks given at the international research workshop: *Coping with Complexity: Model Reduction and Data Analysis*, Ambleside, Lake District, UK, August 31–September 4, 2009 in conjunction with the A4A6, the *6th Conference on Algorithms for Approximation*.

Dolean:2011:HEI

- [DFF11] Victorita Dolean, Hassan Fahs, and Loula Fezoui. Hybrid explicit-implicit time integration for grid-induced stiffness in a DGTD method for time domain electromagnetics. In Hesthaven and Rønquist [HR11], pages 163–170. CODEN LNCSA6. ISBN 3-642-15336-4 (print), 3-642-15337-2 (e-book). ISSN 1439-7358 (print), 2197-7100 (electronic). LCCN ???? URL http://link.springer.com/content/pdf/10.1007/978-3-642-15337-2_13.

deForcrand:2005:MCO

- [dFJ05] Philippe de Forcrand and Oliver Jahn. Monte Carlo over-relaxation for $SU(N)$ gauge theories. In Boriçi et al. [BFJ⁺05], pages 67–73. CODEN LNCSA6. ISBN 3-540-21257-4 (print), 3-540-28504-0 (e-book). ISSN 1439-7358 (print), 2197-7100 (electronic). LCCN QC793.3.Q35 I56 2003. URL http://link.springer.com/content/pdf/10.1007/3-540-28504-0_6.

Diehl:2014:RSF

- [DFM⁺14] Joscha Diehl, Peter K. Friz, Hilmar Mai, Harald Oberhauser, and Sebastian Riedel Robustness in stochastic filtering and maximum likelihood estimation for SDEs. In Dahlke et al. [DDG⁺14], pages 161–178. ISBN 3-319-08159-4. LCCN ???? URL http://link.springer.com/chapter/10.1007/978-3-319-08159-5_8/.

deFalco:2009:PMM

- [dFO09a] C. de Falco and E. O’Riordan. A patched mesh method for singularly perturbed reaction-diffusion equations. In Hegarty et al. [HKOS09], pages 117–127. CODEN LNCSA6. ISBN 3-642-00604-3 (print), 3-642-00605-1 (e-book). ISSN 1439-7358 (print), 2197-7100 (electronic). LCCN ????. URL http://link.springer.com/content/pdf/10.1007/978-3-642-00605-0_8.

deFalco:2009:SPR

- [dFO09b] C. de Falco and E. O’Riordan. Singularly perturbed reaction-diffusion problem with a boundary turning point. In Hegarty et al. [HKOS09], pages 129–139. CODEN LNCSA6. ISBN 3-642-00604-3 (print), 3-642-00605-1 (e-book). ISSN 1439-7358 (print), 2197-7100 (electronic). LCCN ????. URL http://link.springer.com/content/pdf/10.1007/978-3-642-00605-0_9.

Dirks:2001:PAS

- [DFR01] H. K. Dirks, M. Fischer, and J. Rüdiger. Parallel algorithms for solving linear equations in VLSI circuit simulation. In van Rienen et al. [vRGH01], pages 301–308. CODEN LNCSA6. ISBN 3-540-42173-4 (softcover), 3-642-56470-4 (e-book). ISSN 1439-7358 (print), 2197-7100 (electronic). LCCN TK5 .S35 2001. URL http://link.springer.com/content/pdf/10.1007/978-3-642-56470-3_31. Selected contributions presented at the 3rd International Workshop on Scientific Computing in Electrical Engineering.

During:2014:HOA

- [DFR14] B. Düring, M. Fournié, and A. Rigal. High-order ADI schemes for convection-diffusion equations with mixed derivative terms. In Azaïez et al. [AHE13], pages 217–226. ISBN 3-319-01600-8 (hardcover). ISSN 1439-7358 (print), 2197-7100 (electronic). LCCN ????. URL http://link.springer.com/chapter/10.1007/978-3-319-01601-6_17/.

deFalco:2011:EEM

- [dFS11] Carlo de Falco and Riccardo Sacco. Error estimates for a mixed hybridized finite volume method for 2nd order elliptic problems. In Clavero et al. [CGL11], pages 109–117. CODEN LNCSA6. ISBN 3-642-19664-0 (print), 3-642-19665-9 (e-book). ISSN 1439-7358 (print), 2197-7100 (electronic). LCCN

???? URL http://link.springer.com/content/pdf/10.1007/978-3-642-19665-2_12. Selected papers from the proceedings of BAIL 2010 (Boundary and Interior Layers — Computational and Asymptotic Methods), held from 5 to 9 July 2010 at the University of Zaragoza, Spain.

Dolean:2008:WCS

- [DG08] Victorita Dolean and Martin J. Gander. Why classical Schwarz methods applied to certain hyperbolic systems converge even without overlap. In Langer et al. [LDK⁺08], pages 467–475. CODEN LNCSA6. ISBN 3-540-75198-X (print), 3-540-75199-8 (e-book). ISSN 1439-7358 (print), 2197-7100 (electronic). LCCN QA402.2 .I55 2006. URL http://link.springer.com/content/pdf/10.1007/978-3-540-75199-1_59. 17th International Conference on Domain Decomposition Methods held at St. Wolfgang/Strobl, Austria, July 3–7, 2006.

Dubois:2009:CBT

- [DG09] Olivier Dubois and Martin J. Gander. Convergence behavior of a two-level optimized Schwarz preconditioner. In Bercovier et al. [BGKW09], pages 177–184. CODEN LNCSA6. ISBN 3-642-02676-1 (print), 3-642-02677-X (e-book). ISSN 1439-7358 (print), 2197-7100 (electronic). LCCN QA402.2 .I584 2009. URL http://link.springer.com/content/pdf/10.1007/978-3-642-02677-5_18.

Dolean:2011:CDM

- [DG11] Victorita Dolean and Martin J. Gander. Can the discretization modify the performance of Schwarz methods? In Huang et al. [HKWX11], pages 117–124. CODEN LNCSA6. ISBN 3-642-11303-6 (print), 3-642-11304-4 (e-book). ISSN 1439-7358 (print), 2197-7100 (electronic). LCCN QA402.2 .I58 2011. URL http://link.springer.com/content/pdf/10.1007/978-3-642-11304-8_11. Papers presented at the 19th International Conference on Domain Decomposition, DD19, hosted by the School of Mathematics and Computational Science of the Xiangtan University and the Hunan Key Laboratory for Computation and Simulation in Science and Engineering and held in Zhanjiajie, China, August 17–22, 2009.

Dürndorfer:1999:NSM

- [DGH⁺99] St Dürndorfer, V. Gradinaru, R. H. W. Hoppe, E.-R. König,

G. Schrag, and G. Wachutka. Numerical simulation of microstructured semiconductor devices, transducers, and systems. In Bungartz et al. [BDZ99], pages 309–323. CODEN LNCSA6. ISBN 3-540-65730-4 (print), 3-642-60155-3 (e-book). ISSN 1439-7358 (print), 2197-7100 (electronic). LCCN Q183.9.I58 1998. URL http://link.springer.com/chapter/10.1007/978-3-642-60155-2_26/.

Dryja:2008:BDD

- [DGS08] Maksymilian Dryja, Juan Galvis, and Marcus Sarkis. Balancing domain decomposition methods for discontinuous Galerkin discretization. In Langer et al. [LDK⁺08], pages 271–278. CODEN LNCSA6. ISBN 3-540-75198-X (print), 3-540-75199-8 (e-book). ISSN 1439-7358 (print), 2197-7100 (electronic). LCCN QA402.2 .I55 2006. URL http://link.springer.com/content/pdf/10.1007/978-3-540-75199-1_31. 17th International Conference on Domain Decomposition Methods held at St. Wolfgang/Strobl, Austria, July 3–7, 2006.

Dryja:2011:SDD

- [DGS11] Maksymilian Dryja, Juan Galvis, and Marcus Sarkis. N-N solvers for a DG discretization for geometrically nonconforming substructures and discontinuous coefficients. In Huang et al. [HKWX11], pages 27–38. CODEN LNCSA6. ISBN 3-642-11303-6 (print), 3-642-11304-4 (e-book). ISSN 1439-7358 (print), 2197-7100 (electronic). LCCN QA402.2 .I58 2011. URL http://link.springer.com/content/pdf/10.1007/978-3-642-11304-8_3. Papers presented at the 19th International Conference on Domain Decomposition, DD19, hosted by the School of Mathematics and Computational Science of the Xiangtan University and the Hunan Key Laboratory for Computation and Simulation in Science and Engineering and held in Zhanjiajie, China, August 17–22, 2009.

Donoho:2002:BMI

- [DH02] David L. Donoho and Xiaoming Huo. Beamlets and multi-scale image analysis. In Barth et al. [BCH02], pages 149–196. CODEN LNCSA6. ISBN 3-540-42420-2 (print), 3-642-56205-1 (e-book). ISSN 1439-7358 (print), 2197-7100 (electronic). LCCN QA403.3 .M85 2002. URL http://link.springer.com/content/pdf/10.1007/978-3-642-56205-1_3. Papers from the Yosemite Educational Symposium (YES), Yosemite valley, California, Fall 2000.

Davies:2005:CFB

- [DH05a] Philip I. Davies and Nicholas J. Higham. Computing $f(A)b$ for matrix functions f . In Boriçi et al. [BFJ⁺05], pages 15–24. CODEN LNCSA6. ISBN 3-540-21257-4 (print), 3-540-28504-0 (e-book). ISSN 1439-7358 (print), 2197-7100 (electronic). LCCN QC793.3.Q35 I56 2003. URL http://link.springer.com/content/pdf/10.1007/3-540-28504-0_2.

Dostal:2005:SAN

- [DH05b] Zdenek Dostál and David Horák. On scalable algorithms for numerical solution of variational inequalities based on FETI and semi-monotonic augmented Lagrangians. In Kornhuber et al. [KHP⁺05], pages 487–494. CODEN LNCSA6. ISBN 3-540-22523-4 (print), 3-540-26825-1 (e-book). ISSN 1439-7358 (print), 2197-7100 (electronic). LCCN QA402.2.I55 2003. URL http://link.springer.com/content/pdf/10.1007/3-540-26825-1_50. Papers from the 15th International Conference on Domain Decomposition, Freie Universität Berlin (FU), Berlin, Germany, July 21–25, 2003.

Drummond:2005:PLG

- [DHHS05] I. T. Drummond, A. Hart, R. R. Horgan, and L. C. Storti. Perturbative Landau gauge mean link tadpole improvement factors. In Boriçi et al. [BFJ⁺05], pages 83–89. CODEN LNCSA6. ISBN 3-540-21257-4 (print), 3-540-28504-0 (e-book). ISSN 1439-7358 (print), 2197-7100 (electronic). LCCN QC793.3.Q35 I56 2003. URL http://link.springer.com/content/pdf/10.1007/3-540-28504-0_8.

Douglas:2000:FAC

- [DHK⁺00] Craig C. Douglas, Jonathan Hu, Wolfgang Karl, Markus Kowarschik, and Ulrich Rüde. Fixed and adaptive cache aware algorithms for multigrid methods. In Dick et al. [DRV00], pages 87–93. CODEN LNCSA6. ISBN 3-540-67157-9 (print), 3-642-58312-1 (e-book). ISSN 1439-7358 (print), 2197-7100 (electronic). LCCN QA377 .E94 1999. URL http://link.springer.com/chapter/10.1007/978-3-642-58312-4_11/.

Dahmen:2014:ERA

- [DHK⁺14] Wolfgang Dahmen, Chunyan Huang, Gitta Kutyniok, Wang-Q Lim, and Christoph Schwab Efficient resolution of

anisotropic structures. In Dahlke et al. [DDG⁺14], pages 25–51. ISBN 3-319-08159-4. LCCN ????. URL http://link.springer.com/chapter/10.1007/978-3-319-08159-5_2/.

Deuffhard:1999:CMD

[DHL⁺99]

Peter Deuffhard, Jan Hermans, Benedict Leimkuhler, Alan E. Mark, Sebastian Reich, and Robert D. Skeel, editors. *Computational Molecular Dynamics: Challenges, Methods, Ideas: Proceedings of the 2nd International Symposium on Algorithms for Macromolecular Modelling, Berlin, May 21–24, 1997*, volume 4 of *Lecture Notes in Computational Science and Engineering*. Springer-Verlag Inc., New York, NY, USA, 1999. CODEN LNCSA6. ISBN 3-540-63242-5 (print), 3-642-58360-1 (e-book). ISSN 1439-7358 (print), 2197-7100 (electronic). LCCN QP517.M65 I56 1999. URL <http://link.springer.com/book/10.1007/978-3-642-58360-5>; <http://www.springerlink.com/content/978-3-642-58360-5>.

Dostal:2007:OSF

[DHS07]

Zdenek Dostál, David Horák, and Dan Stefanica. An overview of scalable FETI–DP algorithms for variational inequalities. In Widlund and Keyes [WK07], pages 223–230. CODEN LNCSA6. ISBN 3-540-34468-3 (print), 3-540-34469-1 (e-book). ISSN 1439-7358 (print), 2197-7100 (electronic). LCCN QA402.2 .I55 2005. URL http://link.springer.com/content/pdf/10.1007/978-3-540-34469-8_24. Proceedings of the *Sixteenth International Conference on Domain Decomposition Methods*, New York City, January 11–15, 2005.

Dahlke:2000:CAW

[DHU00]

Stephan Dahlke, Reinhard Hochmuth, and Karsten Urban. Convergent adaptive wavelet methods for the Stokes problem. In Dick et al. [DRV00], pages 66–72. CODEN LNCSA6. ISBN 3-540-67157-9 (print), 3-642-58312-1 (e-book). ISSN 1439-7358 (print), 2197-7100 (electronic). LCCN QA377 .E94 1999. URL http://link.springer.com/chapter/10.1007/978-3-642-58312-4_8/.

Dilts:2002:TLR

[DHW02]

Gary A. Dilts, Aamer Haque, and John Wallin. Tuned local regression estimators for the numerical solution of differential equations. In Griebel and Schweitzer [GS02b], pages 87–104.

CODEN LNCSA6. ISBN 3-540-43891-2 (print), 3-642-56103-9 (e-book). ISSN 1439-7358 (print), 2197-7100 (electronic). LCCN QA377 .M45 2003. URL http://link.springer.com/content/pdf/10.1007/978-3-642-56103-0_7. Proceedings of a workshop on Meshfree Methods for Partial Differential Equations, Institut für Angewandte Mathematik, Rheinische Friedrich-Wilhelms Universität Bonn, September 11–14, 2001.

Dinkelacker:2002:NCT

- [Din02] F Dinkelacker. Numerical calculation of turbulent premixed flames with an efficient turbulent flame speed closure model. In Breuer et al. [BDZ02], pages 81–88. CODEN LNCSA6. ISBN 3-540-42946-8 (print), 3-642-55919-0 (e-book). ISSN 1439-7358 (print), 2197-7100 (electronic). LCCN Q183.9 .I58 2001. URL http://link.springer.com/content/pdf/10.1007/978-3-642-55919-8_9.

Discacciati:2005:IMS

- [Dis05] Marco Discacciati. Iterative methods for Stokes/ Darcy coupling. In Kornhuber et al. [KHP⁺05], pages 563–570. CODEN LNCSA6. ISBN 3-540-22523-4 (print), 3-540-26825-1 (e-book). ISSN 1439-7358 (print), 2197-7100 (electronic). LCCN QA402.2 .I55 2003. URL http://link.springer.com/content/pdf/10.1007/3-540-26825-1_59. Papers from the 15th International Conference on Domain Decomposition, Freie Universität Berlin (FU), Berlin, Germany, July 21–25, 2003.

Discacciati:2008:NAS

- [Dis08] Marco Discacciati. Numerical approximation of a steady MHD problem. In Langer et al. [LDK⁺08], pages 313–320. CODEN LNCSA6. ISBN 3-540-75198-X (print), 3-540-75199-8 (e-book). ISSN 1439-7358 (print), 2197-7100 (electronic). LCCN QA402.2 .I55 2006. URL http://link.springer.com/content/pdf/10.1007/978-3-540-75199-1_37. 17th International Conference on Domain Decomposition Methods held at St. Wolfgang/Strobl, Austria, July 3–7, 2006.

Ditkowski:2015:HOF

- [Dit15] A. Ditkowski. High order finite difference schemes for the heat equation whose convergence rates are higher than their truncation errors. In Kirby et al. [KBH15], pages 167–178. ISBN 3-319-19799-1, 3-319-19800-9 (e-book). LCCN

QA377. URL http://link.springer.com/chapter/10.1007/978-3-319-19800-2_13/.

Drikakis:2000:ASM

- [DIV00] Dimitris Drikakis, Oleg Iliev, and Daniela Vassileva. An adaptive-smoothing multigrid method for the Navier–Stokes equations. In Dick et al. [DRV00], pages 94–100. CODEN LNCSA6. ISBN 3-540-67157-9 (print), 3-642-58312-1 (e-book). ISSN 1439-7358 (print), 2197-7100 (electronic). LCCN QA377 .E94 1999. URL http://link.springer.com/chapter/10.1007/978-3-642-58312-4_12/.

Diyankov:2007:FGM

- [DK07] O. V. Diyankov and I. V. Krasnogorov. Fuzzy grid method for Lagrangian gas dynamics equations. In Griebel and Schweitzer [GS07b], pages 77–86. CODEN LNCSA6. ISBN 3-540-46214-7 (print), 3-540-46222-8 (e-book). ISSN 1439-7358 (print), 2197-7100 (electronic). LCCN QA377 .M45 2005. URL http://link.springer.com/content/pdf/10.1007/978-3-540-46222-4_5. Third international workshop on Meshfree Methods for Partial Differential Equations held from September 12 to September 15, 2005 in Bonn, Germany.

deKoning:2009:FPM

- [dK09a] Maurice de Koning. First-principles modeling of lattice defects: advancing our insight into the structure-properties relationship of ice. In Yip and Diaz de la Rubia [YD09], pages 123–141. CODEN LNCSA6. ISBN 1-4020-9740-9 (print), 1-4020-9741-7 (e-book). ISSN 1439-7358 (print), 2197-7100 (electronic). LCCN ???? URL http://link.springer.com/content/pdf/10.1007/978-1-4020-9741-6_10. Previously published in *Scientific Modeling and Simulations*, Volume 15, Issues 1–3, 2008.

Dickopf:2009:WIT

- [DK09b] Thomas Dickopf and Rolf Krause. Weak information transfer between non-matching warped interfaces. In Bercovier et al. [BGKW09], pages 283–290. CODEN LNCSA6. ISBN 3-642-02676-1 (print), 3-642-02677-X (e-book). ISSN 1439-7358 (print), 2197-7100 (electronic). LCCN QA402.2 .I584 2009. URL http://link.springer.com/content/pdf/10.1007/978-3-642-02677-5_31.

Dickopf:2011:SPO

- [DK11] Thomas Dickopf and Rolf Krause. A study of prolongation operators between non-nested meshes. In Huang et al. [HKWX11], pages 343–350. CODEN LNCSA6. ISBN 3-642-11303-6 (print), 3-642-11304-4 (e-book). ISSN 1439-7358 (print), 2197-7100 (electronic). LCCN QA402.2 .I58 2011. URL http://link.springer.com/content/pdf/10.1007/978-3-642-11304-8_39. Papers presented at the 19th International Conference on Domain Decomposition, DD19, hosted by the School of Mathematics and Computational Science of the Xiangtan University and the Hunan Key Laboratory for Computation and Simulation in Science and Engineering and held in Zhanjiajie, China, August 17–22, 2009.

Dostal:2013:SDD

- [DKB⁺13] Z. Dostál, T. Kozubek, T. Brzobohatý, A. Markopoulos, M. Sadowská, and V. Vondrák. Scalable domain decomposition algorithms for contact problems: Theory, numerical experiments, and real world problems. In Bank [Ban13], pages 39–49. ISBN 3-642-35274-X (hardcover), 3-642-35275-8 (e-book). ISSN 1439-7358 (print), 2197-7100 (electronic). LCCN QA402.2 .I58 2011. URL http://link.springer.com/chapter/10.1007/978-3-642-35275-1_4/.

Durmus:2009:UNS

- [DKK09] G. Durmus, M. S. Kavsaoglu, and Ü. Kaynak. Unsteady Navier Stokes solutions of low aspect ratio rectangular flat wings in compressible flow. In Tuncer et al. [TGEM09], pages 297–304. CODEN LNCSA6. ISBN 3-540-92743-3 (print), 3-540-92744-1 (e-book). ISSN 1439-7358 (print), 2197-7100 (electronic). LCCN ???? URL http://link.springer.com/content/pdf/10.1007/978-3-540-92744-0_37. Parallel CFD 2007 was held in Antalya, Turkey, from May 21 to 24, 2007.

Dobrian:2000:DSD

- [DKP00] Florin Dobrian, Gary Kumfert, and Alex Pothen. The design of sparse direct solvers using object-oriented techniques. In Langtangen et al. [LBQ00], pages 89–131. CODEN LNCSA6. ISBN 3-540-66557-9 (softcover), 3-642-57172-7 (e-book). ISSN 1439-7358 (print), 2197-7100 (electronic). LCCN QA76.6 .A336 2000. URL http://link.springer.com/chapter/10.1007/978-3-642-57172-5_3/. Papers from an International

Workshop on Modern Software Tools for Scientific Computing (SciTools'98), Oslo, Norway, September 14–16, 1998.

Dohrmann:2008:ETD

- [DKW08a] Clark R. Dohrmann, Axel Klawonn, and Olof B. Widlund. Extending theory for domain decomposition algorithms to irregular subdomains. In Langer et al. [LDK⁺08], pages 255–261. CODEN LNCSA6. ISBN 3-540-75198-X (print), 3-540-75199-8 (e-book). ISSN 1439-7358 (print), 2197-7100 (electronic). LCCN QA402.2 .I55 2006. URL http://link.springer.com/content/pdf/10.1007/978-3-540-75199-1_29. 17th International Conference on Domain Decomposition Methods held at St. Wolfgang/Strobl, Austria, July 3–7, 2006.

Dohrmann:2008:FEM

- [DKW08b] Clark R. Dohrmann, Axel Klawonn, and Olof B. Widlund. A family of energy minimizing coarse spaces for overlapping Schwarz preconditioners. In Langer et al. [LDK⁺08], pages 247–254. CODEN LNCSA6. ISBN 3-540-75198-X (print), 3-540-75199-8 (e-book). ISSN 1439-7358 (print), 2197-7100 (electronic). LCCN QA402.2 .I55 2006. URL http://link.springer.com/content/pdf/10.1007/978-3-540-75199-1_28. 17th International Conference on Domain Decomposition Methods held at St. Wolfgang/Strobl, Austria, July 3–7, 2006.

Djambazov:2002:DCM

- [DL02] Georgi S. Djambazov and Choi-Hong Lai. A defect correction method for multi-scale problems in computational aeroacoustics. In Pavarino and Toselli [PT02], pages 147–156. CODEN LNCSA6. ISBN 3-540-43413-5 (print), 3-642-56118-7 (e-book). ISSN 1439-7358 (print), 2197-7100 (electronic). LCCN QA402.2 .R43 2002. URL http://link.springer.com/content/pdf/10.1007/978-3-642-56118-4_9. Papers presented at the Workshop on Domain Decomposition held at ETH, Zurich, June 7–8, 2001.

Dennis:2011:RSA

- [DL11] John M. Dennis and Richard D. Loft. Refactoring scientific applications for massive parallelism. In Lauritzen et al. [LJTN11], pages 539–556. CODEN LNCSA6. ISBN 3-642-11639-6 (print), 3-642-11640-X (e-book). ISSN 1439-7358 (print), 2197-7100 (electronic). LCCN QC861.3 .N86

2011. URL http://link.springer.com/content/pdf/10.1007/978-3-642-11640-7_16. Proceedings of the colloquium *Numerical Techniques for Global Atmospheric Models* held at the National Center for Atmospheric Research (NCAR) in Boulder, Colorado, 1–13 June 2008.

Descombes:2014:HOL

- [DLM14] S. Descombes, S. Lanteri, and L. Moya. High-order locally implicit time integration strategies in a discontinuous Galerkin method for Maxwell’s equations. In Azaïez et al. [AHE13], pages 205–215. ISBN 3-319-01600-8 (hardcover). ISSN 1439-7358 (print), 2197-7100 (electronic). LCCN ????. URL http://link.springer.com/chapter/10.1007/978-3-319-01601-6_16/.

Delpino:2002:PDD

- [DLP02] S. Delpino, J. L. Lions, and O. Pironneau. A-priori domain decomposition of PDE systems and applications. In Babuška et al. [BCM02], pages 125–135. CODEN LNCSA6. ISBN 3-540-42399-0 (print), 3-642-56288-4 (e-book). ISSN 1439-7358 (print), 2197-7100 (electronic). LCCN QA808.2 .I59 2000. URL http://link.springer.com/content/pdf/10.1007/978-3-642-56288-4_9.

delaRubia:2009:SMS

- [dIRY09] Tomas Diaz de la Rubia and Sidney Yip. Scientific modeling and simulations. In Yip and Diaz de la Rubia [YD09], pages 1–2. CODEN LNCSA6. ISBN 1-4020-9740-9 (print), 1-4020-9741-7 (e-book). ISSN 1439-7358 (print), 2197-7100 (electronic). LCCN ????. URL http://link.springer.com/content/pdf/10.1007/978-1-4020-9741-6_1. Previously published in *Scientific Modeling and Simulations*, Volume 15, Issues 1–3, 2008.

Dubois:2014:TEM

- [DLT14] François Dubois, Pierre Lallemand, and Mohamed Mahdi Tekitek. Taylor expansion method for linear lattice Boltzmann schemes with an external force: Application to boundary conditions. In Abgrall et al. [ABC⁺14], pages 89–107. ISBN 3-319-05454-6 (paperback), 3-319-05455-4 (e-book). ISSN 1439-7358 (print), 2197-7100 (electronic). LCCN QA374 .A384 2014. URL http://link.springer.com/chapter/10.1007/978-3-319-05455-1_6/.

Dobrev:2008:PSI

- [DLZ08] Veselin A. Dobrev, Raytcho D. Lazarov, and Ludmil T. Zikatanov. Preconditioning of symmetric interior penalty discontinuous Galerkin FEM for elliptic problems. In Langer et al. [LDK⁺08], pages 33–44. CODEN LNCSA6. ISBN 3-540-75198-X (print), 3-540-75199-8 (e-book). ISSN 1439-7358 (print), 2197-7100 (electronic). LCCN QA402.2 .I55 2006. URL http://link.springer.com/content/pdf/10.1007/978-3-540-75199-1_3. 17th International Conference on Domain Decomposition Methods held at St. Wolfgang/Strobl, Austria, July 3–7, 2006.

Dendy:2000:SAM

- [DM00] J. E. Dendy, Jr. and J. D. Moulton. Some aspects of multigrid for mixed discretizations. In Dick et al. [DRV00], pages 80–86. CODEN LNCSA6. ISBN 3-540-67157-9 (print), 3-642-58312-1 (e-book). ISSN 1439-7358 (print), 2197-7100 (electronic). LCCN QA377 .E94 1999. URL http://link.springer.com/chapter/10.1007/978-3-642-58312-4_10/.

Dzougoutov:2005:AMC

- [DM05] Anna Dzougoutov and Kyoung-Sook Moon. Adaptive Monte Carlo algorithms for stopped diffusion. In Engquist et al. [ERL05], pages 59–88. CODEN LNCSA6. ISBN 3-540-25335-1 (print), 3-540-26444-2 (e-book). ISSN 1439-7358 (print), 2197-7100 (electronic). LCCN TA347.F5 M85 2005. URL http://link.springer.com/content/pdf/10.1007/3-540-26444-2_3. Proceedings of *Multiscale Methods in Science and Engineering*, Uppsala, Sweden, January 26–28, 2004.

Dörsek:2011:HFC

- [DM11] P. Dörsek and J. M. Melenk. *hp*-FEM for the contact problem with Tresca friction in linear elasticity: The primal formulation. In Hesthaven and Rønquist [HR11], pages 1–17. CODEN LNCSA6. ISBN 3-642-15336-4 (print), 3-642-15337-2 (e-book). ISSN 1439-7358 (print), 2197-7100 (electronic). LCCN ???? URL http://link.springer.com/content/pdf/10.1007/978-3-642-15337-2_1.

Dörsek:2014:NSA

- [DM14] Philipp Dörsek and J. Markus Melenk. A numerical study of averaging error indicators in *p*-FEM. In Azaïez et al.

[AHE13], pages 227–236. ISBN 3-319-01600-8 (hardcover). ISSN 1439-7358 (print), 2197-7100 (electronic). LCCN ???? URL http://link.springer.com/chapter/10.1007/978-3-319-01601-6_18/.

Daffin:2006:EDF

[DMBS06] Frank Daffin, Michael Scott McKinley, Eugene D. Brooks III, and Abraham Szóke. An evaluation of the difference formulation for photon transport in a two level system. In Graziani [Gra06], pages 283–306. CODEN LNCSA6. ISBN 3-540-28122-3 (print), 3-540-28125-8 (e-book). ISSN 1439-7358 (print), 2197-7100 (electronic). LCCN MLCM 2006/40189 (Q); QC793.3.T7 C66 2006. URL http://link.springer.com/content/pdf/10.1007/3-540-28125-8_13.

Dutsch:1999:CNC

[DMD99] H. Dütsch, A. Melling, and F. Durst. Coupled numerical computations of the fluid damped oscillations of a lamina. In Bungartz et al. [BDZ99], pages 103–112. CODEN LNCSA6. ISBN 3-540-65730-4 (print), 3-642-60155-3 (e-book). ISSN 1439-7358 (print), 2197-7100 (electronic). LCCN Q183.9.I58 1998. URL http://link.springer.com/chapter/10.1007/978-3-642-60155-2_9/.

Dolean:2007:OSA

[DN07] Victorita Dolean and Frédéric Nataf. An optimized Schwarz algorithm for the compressible Euler equations. In Widlund and Keyes [WK07], pages 173–180. CODEN LNCSA6. ISBN 3-540-34468-3 (print), 3-540-34469-1 (e-book). ISSN 1439-7358 (print), 2197-7100 (electronic). LCCN QA402.2 .I55 2005. URL http://link.springer.com/content/pdf/10.1007/978-3-540-34469-8_17. Proceedings of the *Sixteenth International Conference on Domain Decomposition Methods*, New York City, January 11–15, 2005.

Dolean:2008:NDD

[DN08] Victorita Dolean and Frédéric Nataf. A new domain decomposition method for the compressible Euler equations using Smith factorization. In Langer et al. [LDK⁺08], pages 331–338. CODEN LNCSA6. ISBN 3-540-75198-X (print), 3-540-75199-8 (e-book). ISSN 1439-7358 (print), 2197-7100 (electronic). LCCN QA402.2 .I55 2006. URL <http://link.springer.com/content/pdf/10.1007/978-3-540->

75199-1_40. 17th International Conference on Domain Decomposition Methods held at St. Wolfgang/Strobl, Austria, July 3–7, 2006.

deNeef:1999:NBA

- [dNKS99] M. de Neef, P. Knabner, and G. Summ. Numerical bifurcation analysis of premixed combustion in porous inert media. In Bungartz et al. [BDZ99], pages 39–50. CODEN LNCSA6. ISBN 3-540-65730-4 (print), 3-642-60155-3 (e-book). ISSN 1439-7358 (print), 2197-7100 (electronic). LCCN Q183.9.I58 1998. URL http://link.springer.com/chapter/10.1007/978-3-642-60155-2_4/.

Dolean:2008:HUS

- [DNR08] Victorita Dolean, Frédéric Nataf, and Gerd Rapin. How to use the Smith factorization for domain decomposition methods applied to the Stokes equations. In Langer et al. [LDK⁺08], pages 477–484. CODEN LNCSA6. ISBN 3-540-75198-X (print), 3-540-75199-8 (e-book). ISSN 1439-7358 (print), 2197-7100 (electronic). LCCN QA402.2 .I55 2006. URL http://link.springer.com/content/pdf/10.1007/978-3-540-75199-1_60. 17th International Conference on Domain Decomposition Methods held at St. Wolfgang/Strobl, Austria, July 3–7, 2006.

Dolean:2009:DDP

- [DNR09] Vitorita Dolean, Frédéric Nataf, and Gerd Rapin. A domain decomposition preconditioner of Neumann–Neumann type for the Stokes equations. In Bercovier et al. [BGKW09], pages 161–168. CODEN LNCSA6. ISBN 3-642-02676-1 (print), 3-642-02677-X (e-book). ISSN 1439-7358 (print), 2197-7100 (electronic). LCCN QA402.2 .I584 2009. URL http://link.springer.com/content/pdf/10.1007/978-3-642-02677-5_16.

Dolean:2013:TLS

- [DNSS13] V. Dolean, F. Nataf, R. Scheichl, and N. Spillane. A two-level Schwarz preconditioner for heterogeneous problems. In Bank [Ban13], pages 87–94. ISBN 3-642-35274-X (hardcover), 3-642-35275-8 (e-book). ISSN 1439-7358 (print), 2197-7100 (electronic). LCCN QA402.2 .I58 2011. URL http://link.springer.com/chapter/10.1007/978-3-642-35275-1_8/.

Dohrmann:2007:PSP

- [Doh07] Clark R. Dohrmann. Preconditioning of saddle point systems by substructuring and a penalty approach. In Widlund and Keyes [WK07], pages 53–64. CODEN LNCSA6. ISBN 3-540-34468-3 (print), 3-540-34469-1 (e-book). ISSN 1439-7358 (print), 2197-7100 (electronic). LCCN QA402.2 .I55 2005. URL http://link.springer.com/content/pdf/10.1007/978-3-540-34469-8_5. Proceedings of the *Sixteenth International Conference on Domain Decomposition Methods*, New York City, January 11–15, 2005.

Dorch:2000:AMS

- [Dor00] Bertil Dorch. Astrophysical MHD simulation and visualization. In Engquist et al. [EJHS00], pages 209–220. CODEN LNCSA6. ISBN 3-540-67264-8 (print), 3-642-57313-4 (e-book). ISSN 1439-7358 (print), 2197-7100 (electronic). LCCN QA76.9.C65 S535 2000. URL http://link.springer.com/chapter/10.1007/978-3-642-57313-2_21/.

Dryja:2005:FDM

- [DP05] Maksymilian Dryja and Wlodek Proskurowski. A FETI–DP method for the mortar discretization of elliptic problems with discontinuous coefficients. In Kornhuber et al. [KHP⁺05], pages 345–352. CODEN LNCSA6. ISBN 3-540-22523-4 (print), 3-540-26825-1 (e-book). ISSN 1439-7358 (print), 2197-7100 (electronic). LCCN QA402.2 .I55 2003. URL http://link.springer.com/content/pdf/10.1007/3-540-26825-1_34. Papers from the 15th International Conference on Domain Decomposition, Freie Universität Berlin (FU), Berlin, Germany, July 21–25, 2003.

Dokeva:2007:PSF

- [DP07] Nina Dokeva and Wlodek Proskurowski. Parallel scalability of a FETI–DP mortar method for problems with discontinuous coefficients. In Widlund and Keyes [WK07], pages 349–356. CODEN LNCSA6. ISBN 3-540-34468-3 (print), 3-540-34469-1 (e-book). ISSN 1439-7358 (print), 2197-7100 (electronic). LCCN QA402.2 .I55 2005. URL http://link.springer.com/content/pdf/10.1007/978-3-540-34469-8_43. Proceedings of the *Sixteenth International Conference on Domain Decomposition Methods*, New York City, January 11–15, 2005.

Detomi:2009:NMS

- [DP09] Davide Detomi and Nicola Parolini. Numerical models and simulations in sailing yacht design. In Peters [Pet09], pages 1–31. CODEN LNCSA6. ISBN 3-642-04465-4 (print), 3-642-04466-2 (e-book). ISSN 1439-7358 (print), 2197-7100 (electronic). LCCN QA911 .C6234 2009. URL http://link.springer.com/content/pdf/10.1007/978-3-642-04466-3_1.

Despres:2013:RUP

- [DPL13] Bruno Després, Gaël Poëtte, and Didier Lucor. Robust uncertainty propagation in systems of conservation laws with the entropy closure method. In Bijl et al. [BLMS13], pages 105–149. ISBN 3-319-00884-6 (hardcover), 3-319-00885-4 (e-book). ISSN 1439-7358 (print), 2197-7100 (electronic). LCCN ????? URL http://link.springer.com/chapter/10.1007/978-3-319-00885-1_3/.

Dolean:2008:PMF

- [DPR08] Victorita Dolean, Richard Pasquetti, and Francesca Rapetti. p-multigrid for Fekete spectral element method. In Langer et al. [LDK⁺08], pages 485–492. CODEN LNCSA6. ISBN 3-540-75198-X (print), 3-540-75199-8 (e-book). ISSN 1439-7358 (print), 2197-7100 (electronic). LCCN QA402.2 .I55 2006. URL http://link.springer.com/content/pdf/10.1007/978-3-540-75199-1_61. 17th International Conference on Domain Decomposition Methods held at St. Wolfgang/Strobl, Austria, July 3–7, 2006.

Dwarkadas:2005:SVD

- [DPW⁺05] Vikram Dwarkadas, Tomek Plewa, Greg Weirs, Chris Tomkins, and Mark Marr-Lyon. Simulation of vortex-dominated flows using the FLASH code. In Plewa et al. [PLW05], pages 527–537. CODEN LNCSA6. ISBN 3-540-21147-0 (print), 3-540-27039-6 (e-book). ISSN 1439-7358 (print), 2197-7100 (electronic). LCCN QA377 .C46 2003. URL http://link.springer.com/content/pdf/10.1007/3-540-27039-6_39.

Dunne:2006:AFE

- [DR06] Thomas Dunne and Rolf Rannacher. Adaptive finite element approximation of fluid-structure interaction based on

an Eulerian variational formulation. In Bungartz and Schäfer [BS06], pages 110–145. CODEN LNCSA6. ISBN 3-540-34595-7 (print), 3-540-34596-5 (e-book). ISSN 1439-7358 (print), 2197-7100 (electronic). LCCN TA357.5.F58 F586 200. URL http://link.springer.com/content/pdf/10.1007/3-540-34596-5_6. Proceedings of a workshop on fluid-structure interactions held in Hohenwart, Germany, in October 2005.

Dragomirescu:2011:BML

- [Dra11] F. I. Dragomirescu. A $P_n^{\alpha,\beta}$ -based method for linear non-constant coefficients high order eigenvalue problems. In Hesthaven and Rønquist [HR11], pages 383–391. CODEN LNCSA6. ISBN 3-642-15336-4 (print), 3-642-15337-2 (e-book). ISSN 1439-7358 (print), 2197-7100 (electronic). LCCN ????? URL http://link.springer.com/content/pdf/10.1007/978-3-642-15337-2_36.

deRosny:2008:TRE

- [dRLT08] J. de Rosny, G. Lerosey, and A. Tourin. Time reversal of electromagnetic waves. In Ammari [Amm08], pages 187–202. CODEN LNCSA6. ISBN 3-540-73777-4 (print), 3-540-73778-2 (e-book). ISSN 1439-7358 (print), 2197-7100 (electronic). LCCN QC760.4.M37 M63 2008. URL http://link.springer.com/content/pdf/10.1007/978-3-540-73778-0_7.

Dick:2000:MMV

- [DRV00] Erik Dick, Kris Rienslagh, and Jan Vierendeels, editors. *Multigrid Methods VI: Proceedings of the Sixth European Multigrid Conference Held in Gent, Belgium, September 27–30, 1999*, volume 14 of *Lecture Notes in Computational Science and Engineering*. Springer-Verlag Inc., New York, NY, USA, 2000. CODEN LNCSA6. ISBN 3-540-67157-9 (print), 3-642-58312-1 (e-book). ISSN 1439-7358 (print), 2197-7100 (electronic). LCCN QA377 .E94 1999. URL <http://link.springer.com/book/10.1007/978-3-642-58312-4>; <http://www.springerlink.com/content/978-3-642-58312-4>.

Dryja:2011:TTB

- [DS11] Maksymilian Dryja and Marcus Sarkis. Technical tools for boundary layers and applications to heterogeneous coefficients. In Huang et al. [HKWX11], pages 205–212. CO-

DEN LNCSA6. ISBN 3-642-11303-6 (print), 3-642-11304-4 (e-book). ISSN 1439-7358 (print), 2197-7100 (electronic). LCCN QA402.2 .I58 2011. URL http://link.springer.com/content/pdf/10.1007/978-3-642-11304-8_22. Papers presented at the 19th International Conference on Domain Decomposition, DD19, hosted by the School of Mathematics and Computational Science of the Xiangtan University and the Hunan Key Laboratory for Computation and Simulation in Science and Engineering and held in Zhanjiajie, China, August 17–22, 2009.

Dryja:2014:DFD

- [DS14] Maksymilian Dryja and Marcus Sarkis. 3-D FETI–DP preconditioners for composite finite element-discontinuous Galerkin methods. In Erhel et al. [EGH⁺14], pages 127–140. ISBN 3-319-05788-X (paperback), 3-319-05789-8 (e-book). ISSN 1439-7358 (print), 2197-7100 (electronic). LCCN QA71-90. URL http://link.springer.com/chapter/10.1007/978-3-319-05789-7_10/.

Diehl:2015:ENS

- [DS15a] Patrick Diehl and Marc Alexander Schweitzer. Efficient neighbor search for particle methods on GPUs. In Griebel and Schweitzer [GS14], pages 81–95. ISBN 3-319-06898-9. LCCN QA71 .G75 2015; QA377. URL http://link.springer.com/chapter/10.1007/978-3-319-06898-5_5/.

Diehl:2015:SWP

- [DS15b] Patrick Diehl and Marc Alexander Schweitzer. Simulation of wave propagation and impact damage in brittle materials using peridynamics. In Mehl et al. [MBS15], pages 251–265. ISBN 3-319-22996-6, 3-319-22997-4 (e-book). LCCN QA71-90; TA329. URL http://link.springer.com/chapter/10.1007/978-3-319-22997-3_15/.

Du:2015:RDN

- [DT15] Qiang Du and Xiaochuan Tian. Robust discretization of nonlocal models related to peridynamics. In Griebel and Schweitzer [GS14], pages 97–113. ISBN 3-319-06898-9. LCCN QA71 .G75 2015; QA377. URL http://link.springer.com/chapter/10.1007/978-3-319-06898-5_6/.

Dubois:2007:OSM

- [Dub07] Olivier Dubois. Optimized Schwarz methods with Robin conditions for the advection-diffusion equation. In Widlund and Keyes [WK07], pages 181–188. CODEN LNCSA6. ISBN 3-540-34468-3 (print), 3-540-34469-1 (e-book). ISSN 1439-7358 (print), 2197-7100 (electronic). LCCN QA402.2 .I55 2005. URL http://link.springer.com/content/pdf/10.1007/978-3-540-34469-8_18. Proceedings of the *Sixteenth International Conference on Domain Decomposition Methods*, New York City, January 11–15, 2005.

Dubos:2011:HOQ

- [Dub11] T. Dubos. High-order quasi-uniform approximation on the sphere using Fourier-finite-elements. In Hesthaven and Rønquist [HR11], pages 171–178. CODEN LNCSA6. ISBN 3-642-15336-4 (print), 3-642-15337-2 (e-book). ISSN 1439-7358 (print), 2197-7100 (electronic). LCCN ????? URL http://link.springer.com/content/pdf/10.1007/978-3-642-15337-2_14.

Dular:2001:DMF

- [Dul01] P. Dular. Dual magnetodynamic finite element formulations with natural definitions of global quantities for electric circuit coupling. In van Rienen et al. [vRGH01], pages 367–377. CODEN LNCSA6. ISBN 3-540-42173-4 (softcover), 3-642-56470-4 (e-book). ISSN 1439-7358 (print), 2197-7100 (electronic). LCCN TK5 .S35 2001. URL http://link.springer.com/content/pdf/10.1007/978-3-642-56470-3_37. Selected contributions presented at the 3rd International Workshop on Scientific Computing in Electrical Engineering.

Duras:2003:UTP

- [Dur03] Maciej M. Duras. Urban transport phenomena in the street canyon. In Emmerich et al. [ENS03], page ?? CODEN LNCSA6. ISBN 3-540-40367-1. ISSN 1439-7358 (print), 2197-7100 (electronic). LCCN QC173.4.I57 I57 2003. URL <http://www.loc.gov/catdir/enhancements/fy0818/2003060231-d.html>. Papers from the workshop on “Computational Physics of Transport and Interfacial Dynamics”, Dresden, February 25–March 8, 2002.

Durran:2011:SFW

- [Dur11a] Dale R. Durran. Stabilizing fast waves. In Lauritzen et al. [LJTN11], pages 105–140. CODEN LNCSA6. ISBN 3-642-11639-6 (print), 3-642-11640-X (e-book). ISSN 1439-7358 (print), 2197-7100 (electronic). LCCN QC861.3 .N86 2011. URL http://link.springer.com/content/pdf/10.1007/978-3-642-11640-7_6. Proceedings of the colloquium *Numerical Techniques for Global Atmospheric Models* held at the National Center for Atmospheric Research (NCAR) in Boulder, Colorado, 1–13 June 2008.

Durran:2011:TDS

- [Dur11b] Dale R. Durran. Time discretization: Some basic approaches. In Lauritzen et al. [LJTN11], pages 75–104. CODEN LNCSA6. ISBN 3-642-11639-6 (print), 3-642-11640-X (e-book). ISSN 1439-7358 (print), 2197-7100 (electronic). LCCN QC861.3 .N86 2011. URL http://link.springer.com/content/pdf/10.1007/978-3-642-11640-7_5. Proceedings of the colloquium *Numerical Techniques for Global Atmospheric Models* held at the National Center for Atmospheric Research (NCAR) in Boulder, Colorado, 1–13 June 2008.

DeGersem:2000:FEE

- [DVH00] Herbert De Gersem, Stefan Vandewalle, and Kay Hameyer. A Finite-Element/ equivalent-circuit two-level method for magnetic field simulations. In Dick et al. [DRV00], pages 73–79. CODEN LNCSA6. ISBN 3-540-67157-9 (print), 3-642-58312-1 (e-book). ISSN 1439-7358 (print), 2197-7100 (electronic). LCCN QA377 .E94 1999. URL http://link.springer.com/chapter/10.1007/978-3-642-58312-4_9/.

DeGersem:2001:KSM

- [DVH01] H. De Gersem, Stefan Vandewalle, and Kay Hameyer. Krylov subspace methods for harmonic balanced finite element methods. In van Rienen et al. [vRGH01], pages 387–396. CODEN LNCSA6. ISBN 3-540-42173-4 (softcover), 3-642-56470-4 (e-book). ISSN 1439-7358 (print), 2197-7100 (electronic). LCCN TK5 .S35 2001. URL http://link.springer.com/content/pdf/10.1007/978-3-642-56470-3_39. Selected contributions presented at the 3rd International Workshop on Scientific Computing in Electrical Engineering.

Dostal:2008:SFA

- [DVH⁺08] Zdenek Dostál, Vít Vondrák, David Horák, Charbel Farhat, and Philip Avery. Scalable FETI algorithms for frictionless contact problems. In Langer et al. [LDK⁺08], pages 263–270. CODEN LNCSA6. ISBN 3-540-75198-X (print), 3-540-75199-8 (e-book). ISSN 1439-7358 (print), 2197-7100 (electronic). LCCN QA402.2 .I55 2006. URL http://link.springer.com/content/pdf/10.1007/978-3-540-75199-1_30. 17th International Conference on Domain Decomposition Methods held at St. Wolfgang/Strobl, Austria, July 3–7, 2006.

Dupre:2001:HMT

- [DVM⁺01] L. R. Dupre, R. Van Keer, J. A. A. Melkebeek, Y. I. Moroz, and S. E. Zirka. Hysteresis models for transient simulation. In van Rienen et al. [vRGH01], pages 105–112. CODEN LNCSA6. ISBN 3-540-42173-4 (softcover), 3-642-56470-4 (e-book). ISSN 1439-7358 (print), 2197-7100 (electronic). LCCN TK5 .S35 2001. URL http://link.springer.com/content/pdf/10.1007/978-3-642-56470-3_10. Selected contributions presented at the 3rd International Workshop on Scientific Computing in Electrical Engineering.

Deuffhard:1998:GIN

- [DW98] Peter Deuffhard and Martin Weiser. Global inexact Newton multilevel FEM for nonlinear elliptic problems. In Hackbusch and Wittum [HW98], pages 71–89. CODEN LNCSA6. ISBN 3-540-63133-X (softcover), 3-642-58734-8 (e-book). ISSN 1439-7358 (print), 2197-7100 (electronic). LCCN QA377 .E94 1996. URL http://link.springer.com/chapter/10.1007/978-3-642-58734-4_4/.

Dryja:2002:FDM

- [DW02] Maksymilian Dryja and Olof B. Widlund. A FETI–DP method for a mortar discretization of elliptic problems. In Pavarino and Toselli [PT02], pages 41–52. CODEN LNCSA6. ISBN 3-540-43413-5 (print), 3-642-56118-7 (e-book). ISSN 1439-7358 (print), 2197-7100 (electronic). LCCN QA402.2 .R43 2002. URL http://link.springer.com/content/pdf/10.1007/978-3-642-56118-4_3. Papers presented at the Workshop on Domain Decomposition held at ETH, Zurich, June 7–8, 2001.

Dryja:2007:NNA

- [DW07] Maksymilian Dryja and Olof Widlund. Neumann–Neumann algorithms (two and three levels) for finite element elliptic problems with discontinuous coefficients on fine triangulation \mathbb{R}^n . In Widlund and Keyes [WK07], pages 357–364. CODEN LNCSA6. ISBN 3-540-34468-3 (print), 3-540-34469-1 (e-book). ISSN 1439-7358 (print), 2197-7100 (electronic). LCCN QA402.2 .I55 2005. URL http://link.springer.com/content/pdf/10.1007/978-3-540-34469-8_44. Proceedings of the *Sixteenth International Conference on Domain Decomposition Methods*, New York City, January 11–15, 2005.

Dohrmann:2013:SRT

- [DW13] Clark R. Dohrmann and Olof B. Widlund. Some recent tools and a BDDC algorithm for 3D problems in $h(\text{curl})$. In Bank [Ban13], pages 15–25. ISBN 3-642-35274-X (hardcover), 3-642-35275-8 (e-book). ISSN 1439-7358 (print), 2197-7100 (electronic). LCCN QA402.2 .I58 2011. URL http://link.springer.com/chapter/10.1007/978-3-642-35275-1_2/.

Dwight:2013:AUQ

- [DWB13] Richard P. Dwight, Jeroen A. S. Witteveen, and Hester Bijl. Adaptive uncertainty quantification for computational fluid dynamics. In Bijl et al. [BLMS13], pages 151–191. ISBN 3-319-00884-6 (hardcover), 3-319-00885-4 (e-book). ISSN 1439-7358 (print), 2197-7100 (electronic). LCCN ???? URL http://link.springer.com/chapter/10.1007/978-3-319-00885-1_4/.

Dursi:2005:EGT

- [DZ05] L. J. Dursi and M. Zingale. Efficiency gains from time refinement on AMR meshes and explicit timestepping. In Plewa et al. [PLW05], pages 103–113. CODEN LNCSA6. ISBN 3-540-21147-0 (print), 3-540-27039-6 (e-book). ISSN 1439-7358 (print), 2197-7100 (electronic). LCCN QA377 .C46 2003. URL http://link.springer.com/content/pdf/10.1007/3-540-27039-6_7.

Emelianenko:2007:MEB

- [ED07] Maria Emelianenko and Qiang Du. A multilevel energy-based quantization scheme. In Widlund and Keyes [WK07], pages 531–538. CODEN LNCSA6. ISBN 3-540-34468-3

(print), 3-540-34469-1 (e-book). ISSN 1439-7358 (print), 2197-7100 (electronic). LCCN QA402.2 .I55 2005. URL http://link.springer.com/content/pdf/10.1007/978-3-540-34469-8_66. Proceedings of the *Sixteenth International Conference on Domain Decomposition Methods*, New York City, January 11–15, 2005.

Erhel:2009:PSS

- [EdDB09] J. Erhel, J.-R. de Dreuzy, and A. Beaudoin. A parallel scientific software for heterogeneous hydrogeology. In Tuncer et al. [TGEM09], pages 39–48. CODEN LNCSA6. ISBN 3-540-92743-3 (print), 3-540-92744-1 (e-book). ISSN 1439-7358 (print), 2197-7100 (electronic). LCCN ???? URL http://link.springer.com/content/pdf/10.1007/978-3-540-92744-0_5. Parallel CFD 2007 was held in Antalya, Turkey, from May 21 to 24, 2007.

Erhel:2011:MPI

- [EdDB11] J. Erhel, J. R. de Dreuzy, and E. Bresciani. Multi-parametric intensive stochastic simulations for hydrogeology on a computational grid. In Tromeur-Dervout et al. [TDBEE11], pages 389–397. CODEN LNCSA6. ISBN 3-642-14437-3 (print), 3-642-14438-1 (e-book). ISSN 1439-7358 (print), 2197-7100 (electronic). LCCN ???? URL http://link.springer.com/content/pdf/10.1007/978-3-642-14438-7_41. Proceedings of the twentieth meeting, Parallel CFD 2008, held May 19–22, 2008 in Lyon, France.

Edelvik:2005:MSG

- [Ede05] Fredrik Edelvik. On the modeling of small geometric features in computational electromagnetics. In Engquist et al. [ERL05], pages 133–148. CODEN LNCSA6. ISBN 3-540-25335-1 (print), 3-540-26444-2 (e-book). ISSN 1439-7358 (print), 2197-7100 (electronic). LCCN TA347.F5 M85 2005. URL http://link.springer.com/content/pdf/10.1007/3-540-26444-2_6. Proceedings of *Multiscale Methods in Science and Engineering*, Uppsala, Sweden, January 26–28, 2004.

ElBouajaji:2014:DDO

- [EDG⁺14] Mohamed El Bouajaji, Victorita Dolean, Martin J. Gander, Stéphane Lanteri, and Ronan Perrussel. DG discretization of optimized Schwarz methods for Maxwell’s equations. In

Erhel et al. [EGH⁺14], pages 217–225. ISBN 3-319-05788-X (paperback), 3-319-05789-8 (e-book). ISSN 1439-7358 (print), 2197-7100 (electronic). LCCN QA71-90. URL http://link.springer.com/chapter/10.1007/978-3-319-05789-7_18/.

Einbeck:2008:RCD

- [EE08] Jochen Einbeck and Ludger Evers. Representing complex data using localized principal components with application to astronomical data. In Gorban et al. [GKWZ08], pages 178–201. CODEN LNCSA6. ISBN 3-540-73749-9 (print), 3-540-73750-2 (e-book). ISSN 1439-7358 (print), 2197-7100 (electronic). LCCN QA278.5 .P75 2008. URL http://link.springer.com/content/pdf/10.1007/978-3-540-73750-6_7.

Ewing:2008:UTE

- [EEGW08] Richard Ewing, Yalchin Efendiev, Victor Ginting, and Hong Wang. Upscaling of transport equations for multiphase and multicomponent flows. In Langer et al. [LDK⁺08], pages 193–200. CODEN LNCSA6. ISBN 3-540-75198-X (print), 3-540-75199-8 (e-book). ISSN 1439-7358 (print), 2197-7100 (electronic). LCCN QA402.2 .I55 2006. URL http://link.springer.com/content/pdf/10.1007/978-3-540-75199-1_20. 17th International Conference on Domain Decomposition Methods held at St. Wolfgang/Strobl, Austria, July 3–7, 2006.

Estep:2000:UKS

- [EF00] Donald J. Estep and Roland W. Freund. Using Krylov-subspace iterations in discontinuous Galerkin methods for nonlinear reaction-diffusion systems. In Cockburn et al. [CKS00b], pages 327–335. CODEN LNCSA6. ISBN 3-540-66787-3, 3-642-64098-2 (print), 3-642-59721-1 (e-book). ISSN 1439-7358 (print), 2197-7100 (electronic). LCCN TA347.F5 D57 2000. URL http://link.springer.com/chapter/10.1007/978-3-642-59721-3_29/. Papers from the first international symposium on DGM Newport, Rhode Island, USA, May 24–26, 1999.

Eigel:2008:PUM

- [EG08] Martin Eigel and Erwin George. The partition of unity mesh-free method for solving transport-reaction equations on complex domains: Implementation and applications in the life sciences. In Griebel and Schweitzer [GS08d], pages 69–93.

CODEN LNCSA6. ISBN 3-540-79993-1 (print), 3-540-79994-X (e-book). ISSN 1439-7358 (print), 2197-7100 (electronic). LCCN ???? URL http://link.springer.com/content/pdf/10.1007/978-3-540-79994-8_5. Fourth International Workshop on Meshfree Methods for Partial Differential Equations held from September 17 to September 20, 2007 in Bonn, Germany.

Efendiev:2011:DDP

- [EG11] Yalchin Efendiev and Juan Galvis. A domain decomposition preconditioner for multiscale high-contrast problems. In Huang et al. [HKWX11], pages 189–196. CODEN LNCSA6. ISBN 3-642-11303-6 (print), 3-642-11304-4 (e-book). ISSN 1439-7358 (print), 2197-7100 (electronic). LCCN QA402.2 .I58 2011. URL http://link.springer.com/content/pdf/10.1007/978-3-642-11304-8_20. Papers presented at the 19th International Conference on Domain Decomposition, DD19, hosted by the School of Mathematics and Computational Science of the Xiangtan University and the Hunan Key Laboratory for Computation and Simulation in Science and Engineering and held in Zhanjiajie, China, August 17–22, 2009.

Efendiev:2012:CGM

- [EG12a] Yalchin Efendiev and Juan Galvis. Coarse-grid multiscale model reduction techniques for flows in heterogeneous media and applications. In Graham et al. [GHLS12], pages 97–125. CODEN LNCSA6. ISBN 3-642-22060-6 (print), 3-642-22061-4 (e-book). ISSN 1439-7358 (print), 2197-7100 (electronic). LCCN QA297 .N844 2012. URL http://link.springer.com/content/pdf/10.1007/978-3-642-22061-6_4. Ten invited expository articles from the 91st LMS Durham Symposium on *Numerical Analysis of Multiscale Problems*, Durham, UK, 5–15 July 2010.

Ernst:2012:WID

- [EG12b] O. G. Ernst and M. J. Gander. Why it is difficult to solve Helmholtz problems with classical iterative methods. In Graham et al. [GHLS12], pages 325–363. CODEN LNCSA6. ISBN 3-642-22060-6 (print), 3-642-22061-4 (e-book). ISSN 1439-7358 (print), 2197-7100 (electronic). LCCN QA297 .N844 2012. URL http://link.springer.com/content/pdf/10.1007/978-3-642-22061-6_10. Ten invited expository articles

from the 91st LMS Durham Symposium on *Numerical Analysis of Multiscale Problems*, Durham, UK, 5–15 July 2010.

Erhel:2014:DDM

- [EGH⁺14] Jocelyne Erhel, Martin J. Gander, Laurence Halpern, Géraldine Pichot, Taoufik Sassi, and Olof Widlund, editors. *Domain Decomposition Methods in Science and Engineering XXI*, volume 98 of *Lecture Notes in Computational Science and Engineering*. Springer-Verlag Inc., New York, NY, USA, 2014. ISBN 3-319-05788-X (paperback), 3-319-05789-8 (e-book). ISSN 1439-7358 (print), 2197-7100 (electronic). LCCN QA71-90. URL <http://0-dx.doi.org.fama.us.es/10.1007/978-3-319-05789-7>.

Bouajaji:2014:CET

- [EGLS14] M. El Bouajaji, N. Gmati, S. Lanteri, and J. Salhi. Coupling of an exact transparent boundary condition with a DG method for the solution of the time-harmonic Maxwell equations. In Azaïez et al. [AHE13], pages 237–247. ISBN 3-319-01600-8 (hardcover). ISSN 1439-7358 (print), 2197-7100 (electronic). LCCN ????? URL http://link.springer.com/chapter/10.1007/978-3-319-01601-6_19/.

Efendiev:2011:SEA

- [EGV11] Yalchin Efendiev, Juan Galvis, and Panayot S. Vassilevski. Spectral element agglomerate algebraic multigrid methods for elliptic problems with high-contrast coefficients. In Huang et al. [HKWX11], pages 407–414. CODEN LNCSA6. ISBN 3-642-11303-6 (print), 3-642-11304-4 (e-book). ISSN 1439-7358 (print), 2197-7100 (electronic). LCCN QA402.2 .I58 2011. URL http://link.springer.com/content/pdf/10.1007/978-3-642-11304-8_47. Papers presented at the 19th International Conference on Domain Decomposition, DD19, hosted by the School of Mathematics and Computational Science of the Xiangtan University and the Hunan Key Laboratory for Computation and Simulation in Science and Engineering and held in Zhanjiajie, China, August 17–22, 2009.

Egorov:1999:AUG

- [EGZ99] Yu. E. Egorov, A. O. Galyukov, and A. I. Zhmakin. 3D adaptive unstructured grid solver: Application to flow and GaAs deposition in the Planetary ReactorTM. In Bungartz et al. [BDZ99], pages 267–277. CODEN LNCSA6.

ISBN 3-540-65730-4 (print), 3-642-60155-3 (e-book). ISSN 1439-7358 (print), 2197-7100 (electronic). LCCN Q183.9.I58 1998. URL http://link.springer.com/chapter/10.1007/978-3-642-60155-2_23/.

Eichinger:1999:CDS

- [EHH⁺99] Markus Eichinger, Berthold Heymann, Helmut Heller, Helmut Grubmüller, and Paul Tavan. Conformational dynamics simulations of proteins. In Deuffhard et al. [DHL⁺99], pages 78–97. CODEN LNCSA6. ISBN 3-540-63242-5 (print), 3-642-58360-1 (e-book). ISSN 1439-7358 (print), 2197-7100 (electronic). LCCN QP517.M65 I56 1999. URL http://link.springer.com/chapter/10.1007/978-3-642-58360-5_4/.

Espig:2013:EAH

- [EHL13] Mike Espig, Wolfgang Hackbusch, and Alexander Litvinenko. Efficient analysis of high dimensional data in tensor formats. In Garcke and Griebel [GG13], pages 31–56. CODEN LNCSA6. ISBN 3-642-31702-2 (print), 3-642-31703-0 (e-book). ISSN 1439-7358 (print), 2197-7100 (electronic). LCCN ????. URL http://link.springer.com/content/pdf/10.1007/978-3-642-31703-3_2. Proceedings of workshop in Bonn, Germany, from May 16–20, 2011.

Engquist:2012:MMW

- [EHR12] Björn Engquist, Henrik Holst, and Olof Runborg. Multiscale methods for wave propagation in heterogeneous media over long time. In Engquist et al. [ERT12], pages 167–186. CODEN LNCSA6. ISBN 3-642-21942-X (print), 3-642-21943-8 (e-book). ISSN 1439-7358 (print), 2197-7100 (electronic). LCCN ????. URL http://link.springer.com/content/pdf/10.1007/978-3-642-21943-6_8.

Ewing:2008:MDD

- [EIL08] Richard Ewing, Oleg Iliev, and Raytcho D. Lazarov. MINISYMPIUM 3: Domain decomposition in coupled engineering phenomena with multiple scales. In Langer et al. [LDK⁺08], page 183. CODEN LNCSA6. ISBN 3-540-75198-X (print), 3-540-75199-8 (e-book). ISSN 1439-7358 (print), 2197-7100 (electronic). LCCN QA402.2 .I55 2006. URL http://link.springer.com/content/pdf/10.1007/978-3-540-75199-1_18. 17th International Confer-

ence on Domain Decomposition Methods held at St. Wolfgang/Strobl, Austria, July 3–7, 2006.

Engquist:2000:SVG

- [EJHS00] Björn Engquist, Lennart Johnsson, Michael Hammill, and Faith Short, editors. *Simulation and Visualization on the Grid: Paralleldatorcentrum, Kungliga Tekniska Högskolan, Seventh Annual Conference, Stockholm, Sweden, December 1999. Proceedings*, volume 13 of *Lecture Notes in Computational Science and Engineering*. Springer-Verlag Inc., New York, NY, USA, 2000. CODEN LNCSA6. ISBN 3-540-67264-8 (print), 3-642-57313-4 (e-book). ISSN 1439-7358 (print), 2197-7100 (electronic). LCCN QA76.9.C65 S535 2000. URL <http://link.springer.com/book/10.1007/978-3-642-57313-2>; <http://www.pdc.kth.se/conference/2000/>; <http://www.springerlink.com/content/978-3-642-57313-2>.

Eck:2002:TSM

- [EK02] Ch Eck and P. Knabner. A two-scale method for liquid-solid phase transitions with dendritic microstructure. In Breuer et al. [BDZ02], pages 237–244. CODEN LNCSA6. ISBN 3-540-42946-8 (print), 3-642-55919-0 (e-book). ISSN 1439-7358 (print), 2197-7100 (electronic). LCCN Q183.9 .I58 2001. URL http://link.springer.com/content/pdf/10.1007/978-3-642-55919-8_26.

Ehrhardt:2014:MBEf

- [EK14] Matthias Ehrhardt and Thomas Koprucki, editors. *Multi-band effective mass approximations: advanced mathematical models and numerical techniques*, volume 94 of *Lecture Notes in Computational Science and Engineering*. Springer-Verlag Inc., New York, NY, USA, 2014. ISBN 3-319-01426-9, 3-319-01427-7 (e-book). ISSN 1439-7358 (print), 2197-7100 (electronic). xvi + 318 + 83 + 62 pp. LCCN QA71-90; QA300.

Engl:1999:NSO

- [EKKvS99] G. Engl, A. Kröner, Th. Kronseder, and O. von Stryk. Numerical simulation and optimal control of air separation plants. In Bungartz et al. [BDZ99], pages 221–231. CODEN LNCSA6. ISBN 3-540-65730-4 (print), 3-642-60155-3 (e-book). ISSN 1439-7358 (print), 2197-7100 (electronic). LCCN Q183.9.I58 1998. URL http://link.springer.com/chapter/10.1007/978-3-642-60155-2_19/.

Eliasson:2015:HOA

- [EKN15] Peter Eliasson, Marco Kupiainen, and Jan Nordström. Higher order accurate solutions for flow in a cavity: Experiences and lessons learned. In Kirby et al. [KBH15], pages 189–196. ISBN 3-319-19799-1, 3-319-19800-9 (e-book). LCCN QA377. URL http://link.springer.com/chapter/10.1007/978-3-319-19800-2_15/.

Egelja:1999:AGT

- [EKS99] A. Egelja, D. Kröner, and R. Schwürer. Adaptive grids for time dependent conservation laws: Theory and applications in CFD. In Bungartz et al. [BDZ99], pages 25–37. CODEN LNCSA6. ISBN 3-540-65730-4 (print), 3-642-60155-3 (e-book). ISSN 1439-7358 (print), 2197-7100 (electronic). LCCN Q183.9.I58 1998. URL http://link.springer.com/chapter/10.1007/978-3-642-60155-2_3/.

Emmrich:2013:PNC

- [EL13] Etienne Emmrich and Richard B. Lehoucq. Peridynamics: a nonlocal continuum theory. In Griebel and Schweitzer [GS13b], pages 45–65. CODEN LNCSA6. ISBN 3-642-32978-0 (print), 3-642-32979-9 (e-book). ISSN 1439-7358 (print), 2197-7100 (electronic). LCCN QA297 .I58 2011. URL http://link.springer.com/content/pdf/10.1007/978-3-642-32979-1_3. Proceedings of the Sixth International Workshop on Meshfree Methods for Partial Differential Equations, October 4–6, 2011, Bonn, Germany.

Elmroth:2000:GPH

- [Elm00] Erik Elmroth. On Grid partitioning for a high-performance groundwater simulation software. In Engquist et al. [EJHS00], pages 221–234. CODEN LNCSA6. ISBN 3-540-67264-8 (print), 3-642-57313-4 (e-book). ISSN 1439-7358 (print), 2197-7100 (electronic). LCCN QA76.9.C65 S535 2000. URL http://link.springer.com/chapter/10.1007/978-3-642-57313-2_22/.

Eyheramendy:2011:IOO

- [ELOD11] Dominique Eyheramendy, David Loureiro, and Fabienne Oudin-Dardun. An integrated object-oriented approach for parallel CFD. In Tromeur-Dervout et al. [TDBEE11], pages 275–283. CODEN LNCSA6. ISBN 3-642-14437-3 (print),

3-642-14438-1 (e-book). ISSN 1439-7358 (print), 2197-7100 (electronic). LCCN ???? URL http://link.springer.com/content/pdf/10.1007/978-3-642-14438-7_29. Proceedings of the twentieth meeting, Parallel CFD 2008, held May 19–22, 2008 in Lyon, France.

Engquist:2009:MMS

- [ELR09] Björn Engquist, Per Lötstedt, and Olof Runborg, editors. *Multiscale Modeling and Simulation in Science*, volume 66 of *Lecture Notes in Computational Science and Engineering*. Springer-Verlag Inc., New York, NY, USA, 2009. CODEN LNCSA6. ISBN 3-540-88856-X (paperback), 3-540-88857-8 (e-book). ISSN 1439-7358 (print), 2197-7100 (electronic). LCCN Q183.9 .M86 2009. URL <http://link.springer.com/book/10.1007/978-3-540-88857-4>; <http://www.springerlink.com/content/978-3-540-88857-4>.
4. Summer School on Multiscale Modeling and Simulation in Science, Bosön, Lidingö outside Stockholm, Sweden, June 2007.

E:2004:SRP

- [ELVE04] Weinan E, Xiantao Li, and Eric Vanden-Eijnden. Some recent progress in multiscale modeling. In Attinger and Koumoutsakos [AK04], pages 3–21. CODEN LNCSA6. ISBN 3-540-21180-2 (print), 3-642-18756-0 (e-book). ISSN 1439-7358 (print), 2197-7100 (electronic). LCCN TA342 .M85 2004. URL http://link.springer.com/content/pdf/10.1007/978-3-642-18756-8_1. Proceedings of a Summer Program in Multi-Scale Modelling and Simulation held in Lugano, Switzerland, between August 4th and 30th, 2003.

Eibner:2008:PFQ

- [EM08] Tino Eibner and Jens M. Melenk. p-FEM quadrature error analysis on tetrahedra. In Langer et al. [LDK⁺08], pages 493–500. CODEN LNCSA6. ISBN 3-540-75198-X (print), 3-540-75199-8 (e-book). ISSN 1439-7358 (print), 2197-7100 (electronic). LCCN QA402.2 .I55 2006. URL http://link.springer.com/content/pdf/10.1007/978-3-540-75199-1_62. 17th International Conference on Domain Decomposition Methods held at St. Wolfgang/Strobl, Austria, July 3–7, 2006.

Esterhazy:2012:SDH

- [EM12] S. Esterhazy and J. M. Melenk. On stability of discretizations of the Helmholtz equation. In Graham et al. [GHLS12], pages 285–324. CODEN LNCSA6. ISBN 3-642-22060-6 (print), 3-642-22061-4 (e-book). ISSN 1439-7358 (print), 2197-7100 (electronic). LCCN QA297 .N844 2012. URL http://link.springer.com/content/pdf/10.1007/978-3-642-22061-6_9. Ten invited expository articles from the 91st LMS Durham Symposium on *Numerical Analysis of Multiscale Problems*, Durham, UK, 5–15 July 2010.

Epshteyn:2015:SEI

- [EM15] Yekaterina Epshteyn and Michael Medvinsky. On the solution of the elliptic interface problems by difference potentials method. In Kirby et al. [KBH15], pages 197–205. ISBN 3-319-19799-1, 3-319-19800-9 (e-book). LCCN QA377. URL http://link.springer.com/chapter/10.1007/978-3-319-19800-2_16/.

Engquist:2000:SVE

- [Eng00] Erik Engquist. Steering and visualization of electromagnetic simulations using globus. In Engquist et al. [EJHS00], pages 82–97. CODEN LNCSA6. ISBN 3-540-67264-8 (print), 3-642-57313-4 (e-book). ISSN 1439-7358 (print), 2197-7100 (electronic). LCCN QA76.9.C65 S535 2000. URL http://link.springer.com/chapter/10.1007/978-3-642-57313-2_9/.

Ehrig:1999:AEM

- [ENOD99] R. Ehrig, U. Nowak, L. Oeverdieck, and P. Deuffhard. Advanced extrapolation methods for large scale differential algebraic problems. In Bungartz et al. [BDZ99], pages 233–244. CODEN LNCSA6. ISBN 3-540-65730-4 (print), 3-642-60155-3 (e-book). ISSN 1439-7358 (print), 2197-7100 (electronic). LCCN Q183.9.I58 1998. URL http://link.springer.com/chapter/10.1007/978-3-642-60155-2_20/.

Emmerich:2003:ITD

- [ENS03] Heike Emmerich, Britta Nestler, and Michael Schreckenberg, editors. *Interface and transport dynamics: computational modelling*, volume 32 of *Lecture Notes in Computational Science and Engineering*. Springer-Verlag Inc., New York, NY, USA, 2003. CODEN LNCSA6. ISBN 3-540-40367-1. ISSN 1439-7358 (print), 2197-7100 (electronic).

LCCN QC173.4.I57 I57 2003. URL <http://www.loc.gov/catdir/enhancements/fy0818/2003060231-d.html>. Papers from the workshop on “Computational Physics of Transport and Interfacial Dynamics”, Dresden, February 25–March 8, 2002.

Elizondo:2008:DRM

- [EP08] David A. Elizondo and Benjamin N. Passow. Dimensionality reduction and microarray data. In Gorban et al. [GKWZ08], pages 293–308. CODEN LNCSA6. ISBN 3-540-73749-9 (print), 3-540-73750-2 (e-book). ISSN 1439-7358 (print), 2197-7100 (electronic). LCCN QA278.5 .P75 2008. URL http://link.springer.com/content/pdf/10.1007/978-3-540-73750-6_13.

Eftang:2011:HCR

- [EP11] Jens L. Eftang and Anthony T. Patera. An *hp* certified reduced basis method for parametrized parabolic partial differential equations. In Hesthaven and Rønquist [HR11], pages 179–187. CODEN LNCSA6. ISBN 3-642-15336-4 (print), 3-642-15337-2 (e-book). ISSN 1439-7358 (print), 2197-7100 (electronic). LCCN ???? URL http://link.springer.com/content/pdf/10.1007/978-3-642-15337-2_15.

Engquist:2002:WBN

- [ER02] Björn Engquist and Olof Runborg. Wavelet-based numerical homogenization with applications. In Barth et al. [BCH02], pages 97–148. CODEN LNCSA6. ISBN 3-540-42420-2 (print), 3-642-56205-1 (e-book). ISSN 1439-7358 (print), 2197-7100 (electronic). LCCN QA403.3 .M85 2002. URL http://link.springer.com/content/pdf/10.1007/978-3-642-56205-1_2. Papers from the Yosemite Educational Symposium (YES), Yosemite valley, California, Fall 2000.

Engquist:2005:MMS

- [ERL05] Björn Engquist, Olof Runborg, and Per Lötstedt, editors. *Multiscale Methods in Science and Engineering*, volume 44 of *Lecture Notes in Computational Science and Engineering*. Springer-Verlag Inc., New York, NY, USA, 2005. CODEN LNCSA6. ISBN 3-540-25335-1 (print), 3-540-26444-2 (e-book). ISSN 1439-7358 (print), 2197-7100 (electronic). LCCN TA347.F5 M85 2005. URL <http://link.springer.com/book/10.1007/b137594>. Proceedings of *Multiscale Methods*

in Science and Engineering, Uppsala, Sweden, January 26–28, 2004.

Elber:1999:ASP

- [ERO99] Ron Elber, Benoit Roux, and Roberto Olender. Application of a stochastic path integral approach to the computations of an optimal path and ensembles of trajectories. In Deuffhard et al. [DHL⁺99], pages 263–280. CODEN LNCSA6. ISBN 3-540-63242-5 (print), 3-642-58360-1 (e-book). ISSN 1439-7358 (print), 2197-7100 (electronic). LCCN QP517.M65 I56 1999. URL http://link.springer.com/chapter/10.1007/978-3-642-58360-5_14/.

Engquist:2012:NAM

- [ERT12] Björn Engquist, Olof Runborg, and Yen-Hsi R. Tsai, editors. *Numerical Analysis of Multiscale Computations: Proceedings of a Winter Workshop at the Banff International Research Station 2009*, volume 82 of *Lecture Notes in Computational Science and Engineering*. Springer-Verlag Inc., New York, NY, USA, 2012. CODEN LNCSA6. ISBN 3-642-21942-X (print), 3-642-21943-8 (e-book). ISSN 1439-7358 (print), 2197-7100 (electronic). LCCN ????. URL <http://link.springer.com/book/10.1007/978-3-642-21943-6;> <http://www.springerlink.com/content/978-3-642-21943-6>.

Ernst:2014:SCE

- [ES14] Oliver G. Ernst and Björn Sprungk. Stochastic collocation for elliptic PDEs with random data: The lognormal case. In Garcke and Pflüger [GP14], pages 29–53. ISBN 3-319-04536-9 (paperback), 3-319-04537-7 (e-book). LCCN QA188 .S63 2013. URL http://link.springer.com/chapter/10.1007/978-3-319-04537-5_2/.

Enger:2002:SDN

- [ESBD02] S. Enger, F. Schäfer, M. Breuer, and F. Durst. Semi-direct numerical simulation of a Czochralski melt flow on high-performance computers. In Breuer et al. [BDZ02], pages 201–212. CODEN LNCSA6. ISBN 3-540-42946-8 (print), 3-642-55919-0 (e-book). ISSN 1439-7358 (print), 2197-7100 (electronic). LCCN Q183.9 .I58 2001. URL http://link.springer.com/content/pdf/10.1007/978-3-642-55919-8_22.

Ernst:2014:BIP

- [ESS14] Oliver G. Ernst, Björn Sprungk, and Hans-Jörg Starkloff. Bayesian inverse problems and Kalman filters. In Dahlke et al. [DDG⁺14], pages 133–159. ISBN 3-319-08159-4. LCCN ????. URL http://link.springer.com/chapter/10.1007/978-3-319-08159-5_7/.

E:2004:MCD

- [EVE04] Weinan E and Eric Vanden-Eijnden. Metastability, conformation dynamics, and transition pathways in complex systems. In Attinger and Koumoutsakos [AK04], pages 35–68. CODEN LNCSA6. ISBN 3-540-21180-2 (print), 3-642-18756-0 (e-book). ISSN 1439-7358 (print), 2197-7100 (electronic). LCCN TA342 .M85 2004. URL http://link.springer.com/content/pdf/10.1007/978-3-642-18756-8_3. Proceedings of a Summer Program in Multi-Scale Modelling and Simulation held in Lugano, Switzerland, between August 4th and 30th, 2003.

Eberhard:2005:CMM

- [EW05] Jens Eberhard and Gabriel Wittum. A coarsening multigrid method for flow in heterogeneous porous media. In Engquist et al. [ERL05], pages 111–132. CODEN LNCSA6. ISBN 3-540-25335-1 (print), 3-540-26444-2 (e-book). ISSN 1439-7358 (print), 2197-7100 (electronic). LCCN TA347.F5 M85 2005. URL http://link.springer.com/content/pdf/10.1007/3-540-26444-2_5. Proceedings of *Multiscale Methods in Science and Engineering*, Uppsala, Sweden, January 26–28, 2004.

Elsheikh:2008:ASA

- [EW08] Atya Elsheikh and Wolfgang Wiechert. Automatic sensitivity analysis of DAE-systems generated from equation-based modeling languages. In Bischof et al. [BBH⁺08], pages 235–246. CODEN LNCSA6. ISBN 3-540-68935-4 (print), 3-540-68942-7 (e-book). ISSN 1439-7358 (print), 2197-7100 (electronic). LCCN QA304 .I58 2008. URL http://link.springer.com/content/pdf/10.1007/978-3-540-68942-3_21.

Engquist:2012:FAH

- [EY12] Björn Engquist and Lexing Ying. Fast algorithms for high frequency wave propagation. In Graham et al. [GHLS12],

pages 127–161. CODEN LNCSA6. ISBN 3-642-22060-6 (print), 3-642-22061-4 (e-book). ISSN 1439-7358 (print), 2197-7100 (electronic). LCCN QA297 .N844 2012. URL http://link.springer.com/content/pdf/10.1007/978-3-642-22061-6_5. Ten invited expository articles from the 91st LMS Durham Symposium on *Numerical Analysis of Multi-scale Problems*, Durham, UK, 5–15 July 2010.

Fike:2012:ADT

- [FA12] Jeffrey A. Fike and Juan J. Alonso. Automatic differentiation through the use of hyper-dual numbers for second derivatives. In Forth et al. [FHP⁺12], pages 163–173. CODEN LNCSA6. ISBN 3-642-30022-7 (print), 3-642-30023-5 (e-book). ISSN 1439-7358 (print), 2197-7100 (electronic). LCCN ????. URL http://link.springer.com/content/pdf/10.1007/978-3-642-30023-3_15. Proceedings of the Sixth International Conference on Automatic Differentiation (AD2012) held July 23–27, 2012, in Fort Collins, Colorado, USA.

Fairag:2002:TLF

- [Fai02] Faisal Fairag. Two level finite element technique for pressure recovery from stream function formulation of the Navier–Stokes equations. In Barth et al. [BCH02], pages 297–306. CODEN LNCSA6. ISBN 3-540-42420-2 (print), 3-642-56205-1 (e-book). ISSN 1439-7358 (print), 2197-7100 (electronic). LCCN QA403.3 .M85 2002. URL http://link.springer.com/content/pdf/10.1007/978-3-642-56205-1_7. Papers from the Yosemite Educational Symposium (YES), Yosemite valley, California, Fall 2000.

Falk:2000:AFE

- [Fal00] Richard S. Falk. Analysis of finite element methods for linear hyperbolic problems. In Cockburn et al. [CKS00b], pages 103–112. CODEN LNCSA6. ISBN 3-540-66787-3, 3-642-64098-2 (print), 3-642-59721-1 (e-book). ISSN 1439-7358 (print), 2197-7100 (electronic). LCCN TA347.F5 D57 2000. URL http://link.springer.com/chapter/10.1007/978-3-642-59721-3_6/. Papers from the first international symposium on DGM Newport, Rhode Island, USA, May 24–26, 1999.

Falle:2005:AAN

- [Fal05] S. A. E. G. Falle. AMR applied to non-linear elastodynamics.

In Plewa et al. [PLW05], pages 235–253. CODEN LNCSA6. ISBN 3-540-21147-0 (print), 3-540-27039-6 (e-book). ISSN 1439-7358 (print), 2197-7100 (electronic). LCCN QA377 .C46 2003. URL http://link.springer.com/content/pdf/10.1007/3-540-27039-6_16.

Falletta:2007:AIM

- [Fal07] Silvia Falletta. The approximate integration in the mortar method constraint. In Widlund and Keyes [WK07], pages 555–563. CODEN LNCSA6. ISBN 3-540-34468-3 (print), 3-540-34469-1 (e-book). ISSN 1439-7358 (print), 2197-7100 (electronic). LCCN QA402.2 .I55 2005. URL http://link.springer.com/content/pdf/10.1007/978-3-540-34469-8_69. Proceedings of the *Sixteenth International Conference on Domain Decomposition Methods*, New York City, January 11–15, 2005.

Fassbender:2000:EMP

- [Fas00] Jens Fassbender. Experiences with multigrid-prolongation for two-equation turbulence models in flows with high Reynolds numbers. In Dick et al. [DRV00], pages 108–114. CODEN LNCSA6. ISBN 3-540-67157-9 (print), 3-642-58312-1 (e-book). ISSN 1439-7358 (print), 2197-7100 (electronic). LCCN QA377 .E94 1999. URL http://link.springer.com/chapter/10.1007/978-3-642-58312-4_14/.

Fasshauer:2002:AML

- [Fas02] Gregory E. Fasshauer. Approximate moving least-squares approximation with compactly supported radial weights. In Griebel and Schweitzer [GS02b], pages 105–116. CODEN LNCSA6. ISBN 3-540-43891-2 (print), 3-642-56103-9 (e-book). ISSN 1439-7358 (print), 2197-7100 (electronic). LCCN QA377 .M45 2003. URL http://link.springer.com/content/pdf/10.1007/978-3-642-56103-0_8. Proceedings of a workshop on Meshfree Methods for Partial Differential Equations, Institut für Angewandte Mathematik, Rheinische Friedrich-Wilhelms Universität Bonn, September 11–14, 2001.

Fries:2007:NSF

- [FB07] Thomas-Peter Fries and Ted Belytschko. New shape functions for arbitrary discontinuities without additional unknowns. In Griebel and Schweitzer [GS07b], pages 87–103. CODEN LNCSA6. ISBN 3-540-46214-7 (print), 3-540-46222-

8 (e-book). ISSN 1439-7358 (print), 2197-7100 (electronic). LCCN QA377 .M45 2005. URL http://link.springer.com/content/pdf/10.1007/978-3-540-46222-4_6. Third international workshop on Meshfree Methods for Partial Differential Equations held from September 12 to September 15, 2005 in Bonn, Germany.

Fackeldey:2013:MDM

- [FB13] Konstantin Fackeldey and Alexander Bujotzek. A meshless discretization method for Markov state models applied to explicit water peptide folding simulations. In Griebel and Schweitzer [GS13b], pages 141–154. CODEN LNCSA6. ISBN 3-642-32978-0 (print), 3-642-32979-9 (e-book). ISSN 1439-7358 (print), 2197-7100 (electronic). LCCN QA297 .I58 2011. URL http://link.springer.com/content/pdf/10.1007/978-3-642-32979-1_9. Proceedings of the Sixth International Workshop on Meshfree Methods for Partial Differential Equations, October 4–6, 2011, Bonn, Germany.

Fishelov:2011:HAD

- [FBAC11] D. Fishelov, M. Ben-Artzi, and J.-P. Croisille. Highly accurate discretization of the Navier–Stokes equations in streamfunction formulation. In Hesthaven and Rønquist [HR11], pages 189–197. CODEN LNCSA6. ISBN 3-642-15336-4 (print), 3-642-15337-2 (e-book). ISSN 1439-7358 (print), 2197-7100 (electronic). LCCN ???? URL http://link.springer.com/content/pdf/10.1007/978-3-642-15337-2_16.

Fournier:2005:MAS

- [FBC05] Aimé Fournier, Gregory Beylkin, and Vani Cheruvu. Multiresolution adaptive space refinement in geophysical fluid dynamics simulation. In Plewa et al. [PLW05], pages 161–170. CODEN LNCSA6. ISBN 3-540-21147-0 (print), 3-540-27039-6 (e-book). ISSN 1439-7358 (print), 2197-7100 (electronic). LCCN QA377 .C46 2003. URL http://link.springer.com/content/pdf/10.1007/3-540-27039-6_11.

Feistauer:2015:AST

- [FBHK15] Miloslav Feistauer, Monika Balázsová, Martin Hadrava, and Adam Kosík. Analysis of space–time DGFEM for the solution of nonstationary nonlinear convection-diffusion problems. In Abdulle et al. [ADK⁺15], pages 105–113. ISBN 3-319-10704-6 (paperback), 3-319-10705-4 (e-book). ISSN 1439-7358

(print), 2197-7100 (electronic). LCCN QA76.9.M35 .E976 2015. URL http://link.springer.com/chapter/10.1007/978-3-319-10705-9_10/.

Fortin:2000:TYU

- [FBHL00] A. Fortin, A. Béliveau, M. C. Heuzey, and A. Lioret. Ten years using discontinuous Galerkin methods for polymer processing problems. In Cockburn et al. [CKS00b], pages 321–326. CODEN LNCSA6. ISBN 3-540-66787-3, 3-642-64098-2 (print), 3-642-59721-1 (e-book). ISSN 1439-7358 (print), 2197-7100 (electronic). LCCN TA347.F5 D57 2000. URL http://link.springer.com/chapter/10.1007/978-3-642-59721-3_28/. Papers from the first international symposium on DGM Newport, Rhode Island, USA, May 24–26, 1999.

Frewen:2011:CCD

- [FC11] Thomas A. Frewen and Iain D. Couzin. Coarse collective dynamics of animal groups. In Gorban and Roose [GR11b], pages 299–309. CODEN LNCSA6. ISBN 3-642-14940-5 (print), 3-642-14941-3 (e-book). ISSN 1439-7358 (print), 2197-7100 (electronic). LCCN QA401 .C67 2011. URL http://link.springer.com/content/pdf/10.1007/978-3-642-14941-2_16. Extended versions of selected talks given at the international research workshop: *Coping with Complexity: Model Reduction and Data Analysis*, Ambleside, Lake District, UK, August 31–September 4, 2009 in conjunction with the A4A6, the *6th Conference on Algorithms for Approximation*.

Feistauer:2014:DGM

- [FCH⁺14] Miloslav Feistauer, Jan Cesenek, Martin Hadrava, Jaromír Horáček, and Adam Kosík. Discontinuous Galerkin method and applications to fluid-structure interaction problems. In Abgrall et al. [ABC⁺14], pages 185–208. ISBN 3-319-05454-6 (paperback), 3-319-05455-4 (e-book). ISSN 1439-7358 (print), 2197-7100 (electronic). LCCN QA374 .A384 2014. URL http://link.springer.com/chapter/10.1007/978-3-319-05455-1_11/.

Ferrer:2015:VAS

- [FdIPFC15] Miguel Ferrer, Josep de la Puente, Albert Farrés, and José E. Castillo. 3D viscoelastic anisotropic seismic modeling with

high-order mimetic finite differences. In Kirby et al. [KBH15], pages 217–225. ISBN 3-319-19799-1, 3-319-19800-9 (e-book). LCCN QA377. URL http://link.springer.com/chapter/10.1007/978-3-319-19800-2_18/.

Franzelin:2015:NIU

- [FDP15] Fabian Franzelin, Patrick Diehl, and Dirk Pflüger. Non-intrusive uncertainty quantification with sparse grids for multivariate peridynamic simulations. In Griebel and Schweitzer [GS14], pages 115–143. ISBN 3-319-06898-9. LCCN QA71 .G75 2015; QA377. URL http://link.springer.com/chapter/10.1007/978-3-319-06898-5_7/.

Folch:2003:PFM

- [FfToNiBA⁺03] Roger Folch, Mathis Plapp Phase field Theory of Nucleation, Growth in Binary Alloys, Laszlo Granasy, Tamas Borzsonyi, and Tamas Pusztai. Phase-field modeling of eutectic solidification: From oscillations to invasion. In Emmerich et al. [ENS03], page ?? CODEN LNCSA6. ISBN 3-540-40367-1. ISSN 1439-7358 (print), 2197-7100 (electronic). LCCN QC173.4.I57 I57 2003. URL <http://www.loc.gov/catdir/enhancements/fy0818/2003060231-d.html>. Papers from the workshop on “Computational Physics of Transport and Interfacial Dynamics”, Dresden, February 25–March 8, 2002.

Fang:2011:IBL

- [FGGZ11] Jun Fang, Xingyu Gao, Xingao Gong, and Aihui Zhou. Interpolation based local postprocessing for adaptive finite element approximations in electronic structure calculations. In Huang et al. [HKWX11], pages 51–61. CODEN LNCSA6. ISBN 3-642-11303-6 (print), 3-642-11304-4 (e-book). ISSN 1439-7358 (print), 2197-7100 (electronic). LCCN QA402.2 .I58 2011. URL http://link.springer.com/content/pdf/10.1007/978-3-642-11304-8_5. Papers presented at the 19th International Conference on Domain Decomposition, DD19, hosted by the School of Mathematics and Computational Science of the Xiangtan University and the Hunan Key Laboratory for Computation and Simulation in Science and Engineering and held in Zhanjiajie, China, August 17–22, 2009.

Frank:2002:HPM

- [FGR02] Jason Frank, Georg Gottwald, and Sebastian Reich. A Hamiltonian particle-mesh method for the rotating shallow-water

equations. In Griebel and Schweitzer [GS02b], pages 131–142. CODEN LNCSA6. ISBN 3-540-43891-2 (print), 3-642-56103-9 (e-book). ISSN 1439-7358 (print), 2197-7100 (electronic). LCCN QA377 .M45 2003. URL http://link.springer.com/content/pdf/10.1007/978-3-642-56103-0_10. Proceedings of a workshop on Meshfree Methods for Partial Differential Equations, Institut für Angewandte Mathematik, Rheinische Friedrich-Wilhelms Universität Bonn, September 11–14, 2001.

Fischer:2005:PTS

- [FHM05] Paul F. Fischer, Frédéric Hecht, and Yvon Maday. A Parareal in time semi-implicit approximation of the Navier–Stokes equations. In Kornhuber et al. [KHP⁺05], pages 433–440. CODEN LNCSA6. ISBN 3-540-22523-4 (print), 3-540-26825-1 (e-book). ISSN 1439-7358 (print), 2197-7100 (electronic). LCCN QA402.2 .I55 2003. URL http://link.springer.com/content/pdf/10.1007/3-540-26825-1_44. Papers from the 15th International Conference on Domain Decomposition, Freie Universität Berlin (FU), Berlin, Germany, July 21–25, 2003.

Forth:2012:RAA

- [FHP⁺12] Shaun Forth, Paul Hovland, Eric Phipps, Jean Utke, and Andrea Walther, editors. *Recent Advances in Algorithmic Differentiation*, volume 87 of *Lecture Notes in Computational Science and Engineering*. Springer-Verlag Inc., New York, NY, USA, 2012. CODEN LNCSA6. ISBN 3-642-30022-7 (print), 3-642-30023-5 (e-book). ISSN 1439-7358 (print), 2197-7100 (electronic). LCCN ???? URL <http://link.springer.com/book/10.1007/978-3-642-30023-3>; <http://www.springerlink.com/content/978-3-642-30023-3>. 3. Proceedings of the Sixth International Conference on Automatic Differentiation (AD2012) held July 23–27, 2012, in Fort Collins, Colorado, USA.

Fishelov:2015:SDT

- [Fis15] Dalia Fishelov. Semi-discrete time-dependent fourth-order problems on an interval: Error estimate. In Abdulle et al. [ADK⁺15], pages 133–142. ISBN 3-319-10704-6 (paperback), 3-319-10705-4 (e-book). ISSN 1439-7358 (print), 2197-7100 (electronic). LCCN QA76.9.M35 .E976 2015. URL http://link.springer.com/chapter/10.1007/978-3-319-10705-9_13/.

Falgout:2000:MMP

- [FJ00] Robert D. Falgout and Jim E. Jones. Multigrid on massively parallel architectures. In Dick et al. [DRV00], pages 101–107. CODEN LNCSA6. ISBN 3-540-67157-9 (print), 3-642-58312-1 (e-book). ISSN 1439-7358 (print), 2197-7100 (electronic). LCCN QA377 .E94 1999. URL http://link.springer.com/chapter/10.1007/978-3-642-58312-4_13/.

Falgout:2006:DIH

- [FJY06] Robert D. Falgout, Jim E. Jones, and Ulrike Meier Yang. The design and implementation of *hypre*, a library of parallel high performance preconditioners. In Bruaset and Tveito [BT06], pages 267–294. CODEN LNCSA6. ISBN 3-540-29076-1 (print), 3-540-31619-1 (e-book). ISSN 1439-7358 (print), 2197-7100 (electronic). LCCN QA377 .N87 2006. URL http://link.springer.com/content/pdf/10.1007/3-540-31619-1_8.

Fodor:2002:RMM

- [FK02] Imola K. Fodor and Chandrika Kamath. The role of multiresolution in mining massive image datasets. In Barth et al. [BCH02], pages 307–317. CODEN LNCSA6. ISBN 3-540-42420-2 (print), 3-642-56205-1 (e-book). ISSN 1439-7358 (print), 2197-7100 (electronic). LCCN QA403.3 .M85 2002. URL http://link.springer.com/content/pdf/10.1007/978-3-642-56205-1_8. Papers from the Yosemite Educational Symposium (YES), Yosemite valley, California, Fall 2000.

Fackeldey:2007:SFC

- [FK07] Konstantin Fackeldey and Rolf H. Krause. Solving frictional contact problems with multigrid efficiency. In Widlund and Keyes [WK07], pages 547–554. CODEN LNCSA6. ISBN 3-540-34468-3 (print), 3-540-34469-1 (e-book). ISSN 1439-7358 (print), 2197-7100 (electronic). LCCN QA402.2 .I55 2005. URL http://link.springer.com/content/pdf/10.1007/978-3-540-34469-8_68. Proceedings of the *Sixteenth International Conference on Domain Decomposition Methods*, New York City, January 11–15, 2005.

Fackeldey:2008:SET

- [FK08] Konstantin Fackeldey and Rolf Krause. Stability of energy transfer in the weak coupling method. In Griebel and

Schweitzer [GS08d], pages 111–119. CODEN LNCSA6. ISBN 3-540-79993-1 (print), 3-540-79994-X (e-book). ISSN 1439-7358 (print), 2197-7100 (electronic). LCCN ???? URL http://link.springer.com/content/pdf/10.1007/978-3-540-79994-8_7. Fourth International Workshop on Meshfree Methods for Partial Differential Equations held from September 17 to September 20, 2007 in Bonn, Germany.

Fackeldey:2011:NVC

- [FK11a] Konstantin Fackeldey and Dorian Krause. Numerical validation of a constraints-based multiscale simulation method for solids. In Griebel and Schweitzer [GS11c], pages 141–154. CODEN LNCSA6. ISBN 3-642-16228-2 (print), 3-642-16229-0 (e-book). ISSN 1439-7358 (print), 2197-7100 (electronic). LCCN ???? URL http://link.springer.com/content/pdf/10.1007/978-3-642-16229-9_9. Proceedings of the Fifth International Workshop on Meshfree Methods for Partial Differential Equations held from August 17 to August 19, 2009 in Bonn, Germany.

Franz:2011:CMS

- [FK11b] Sebastian Franz and R. Bruce Kellogg. On the choice of mesh for a singularly perturbed problem with a corner singularity. In Clavero et al. [CGL11], pages 119–126. CODEN LNCSA6. ISBN 3-642-19664-0 (print), 3-642-19665-9 (e-book). ISSN 1439-7358 (print), 2197-7100 (electronic). LCCN ???? URL http://link.springer.com/content/pdf/10.1007/978-3-642-19665-2_13. Selected papers from the proceedings of BAIL 2010 (Boundary and Interior Layers — Computational and Asymptotic Methods), held from 5 to 9 July 2010 at the University of Zaragoza, Spain.

Fukushige:2011:CIM

- [FKAF11] Takahiro Fukushige, Toshihiro Kamatsuchi, Toshiyuki Arima, and Seiji Fujino. Convergence improvement method for computational fluid dynamics using building-cube method. In Tromeur-Dervout et al. [TDBEE11], pages 93–100. CODEN LNCSA6. ISBN 3-642-14437-3 (print), 3-642-14438-1 (e-book). ISSN 1439-7358 (print), 2197-7100 (electronic). LCCN ???? URL http://link.springer.com/content/pdf/10.1007/978-3-642-14438-7_9. Proceedings of the twentieth meeting, Parallel CFD 2008, held May 19–22, 2008 in Lyon, France.

Forster:2008:FRP

- [FKMS08] Ralf Forster, Ralf Kornhuber, Karin Mautner, and Oliver Sander. Fast and reliable pricing of American options with local volatility. In Langer et al. [LDK⁺08], pages 383–390. CODEN LNCSA6. ISBN 3-540-75198-X (print), 3-540-75199-8 (e-book). ISSN 1439-7358 (print), 2197-7100 (electronic). LCCN QA402.2 .I55 2006. URL http://link.springer.com/content/pdf/10.1007/978-3-540-75199-1_48. 17th International Conference on Domain Decomposition Methods held at St. Wolfgang/Strobl, Austria, July 3–7, 2006.

Fournier:2000:AAH

- [FL00] Luc Fournier and Stéphane Lanteri. Additive aspects of hybrid multigrid/domain decomposition solution of fluid flow problems on parallel computers. In Dick et al. [DRV00], pages 115–121. CODEN LNCSA6. ISBN 3-540-67157-9 (print), 3-642-58312-1 (e-book). ISSN 1439-7358 (print), 2197-7100 (electronic). LCCN QA377 .E94 1999. URL http://link.springer.com/chapter/10.1007/978-3-642-58312-4_15/.

Fischer:2005:HSM

- [FL05] Paul F. Fischer and James W. Lottes. Hybrid Schwarz-multigrid methods for the spectral element method: Extensions to Navier–Stokes. In Kornhuber et al. [KHP⁺05], pages 35–49. CODEN LNCSA6. ISBN 3-540-22523-4 (print), 3-540-26825-1 (e-book). ISSN 1439-7358 (print), 2197-7100 (electronic). LCCN QA402.2 .I55 2003. URL http://link.springer.com/content/pdf/10.1007/3-540-26825-1_3. Papers from the 15th International Conference on Domain Decomposition, Freie Universität Berlin (FU), Berlin, Germany, July 21–25, 2003.

Flanders:2006:SOR

- [Fla06] Harley Flanders. Solutions of ODEs with removable singularities. In Bückner et al. [BCH⁺06], pages 35–45. CODEN LNCSA6. ISBN 3-540-28403-6 (print), 3-540-28438-9 (e-book). ISSN 1439-7358 (print), 2197-7100 (electronic). LCCN QA304 .I58 2006. URL http://link.springer.com/content/pdf/10.1007/3-540-28438-9_3. Proceedings of the Fourth International Conference on Automatic Differentiation, July 20–23, Chicago, Illinois.

Fleming:2005:WCL

- [Fle05] George T. Fleming. What can lattice QCD theorists learn from NMR spectroscopists? In Boriçi et al. [BFJ⁺05], pages 143–152. CODEN LNCSA6. ISBN 3-540-21257-4 (print), 3-540-28504-0 (e-book). ISSN 1439-7358 (print), 2197-7100 (electronic). LCCN QC793.3.Q35 I56 2003. URL http://link.springer.com/content/pdf/10.1007/3-540-28504-0_14.

Farhat:2005:FMC

- [FLLA05] Charbel Farhat, Jing Li, Michel Lesoinne, and Philippe Avery. A FETI method for a class of indefinite or complex second- or fourth-order problems. In Kornhuber et al. [KHP⁺05], pages 19–34. CODEN LNCSA6. ISBN 3-540-22523-4 (print), 3-540-26825-1 (e-book). ISSN 1439-7358 (print), 2197-7100 (electronic). LCCN QA402.2 .I55 2003. URL http://link.springer.com/content/pdf/10.1007/3-540-26825-1_2. Papers from the 15th International Conference on Domain Decomposition, Freie Universität Berlin (FU), Berlin, Germany, July 21–25, 2003.

Frommer:2000:NCL

- [FLMS00] Andreas Frommer, Thomas Lippert, Björn Medeke, and Klaus Schilling, editors. *Numerical Challenges in Lattice Quantum Chromodynamics: Joint Interdisciplinary Workshop of John von Neumann Institute for Computing, Jülich, and Institute of Applied Computer Science, Wuppertal University, August 1999*, volume 15 of *Lecture Notes in Computational Science and Engineering*. Springer-Verlag Inc., New York, NY, USA, 2000. CODEN LNCSA6. ISBN 3-540-67732-1 (print), 3-642-58333-4 (e-book). ISSN 1439-7358 (print), 2197-7100 (electronic). LCCN QC793.3.G38 N86 2000. URL <http://link.springer.com/book/10.1007/978-3-642-58333-9>; <http://www.springerlink.com/content/978-3-642-58333-9>.

Flaherty:2000:SPA

- [FLST00] J. E. Flaherty, R. M. Loy, M. S. Shephard, and J. D. Teresco. Software for the parallel adaptive solution of conservation laws by discontinuous Galerkin methods. In Cockburn et al. [CKS00b], pages 113–123. CODEN LNCSA6. ISBN 3-540-66787-3, 3-642-64098-2 (print), 3-642-59721-1 (e-book). ISSN 1439-7358 (print), 2197-7100 (electronic). LCCN TA347.F5

D57 2000. URL http://link.springer.com/chapter/10.1007/978-3-642-59721-3_7/. Papers from the first international symposium on DGM Newport, Rhode Island, USA, May 24–26, 1999.

Frullone:2009:AAS

- [FLTD09] A. Frullone, P. Linel, and D. Tromeur-Dervout. Adaptive Aitken–Schwarz for Darcy 3D flow on heterogeneous media. In Tuncer et al. [TGEM09], pages 237–244. CODEN LNCSA6. ISBN 3-540-92743-3 (print), 3-540-92744-1 (e-book). ISSN 1439-7358 (print), 2197-7100 (electronic). LCCN ????. URL http://link.springer.com/content/pdf/10.1007/978-3-540-92744-0_29. Parallel CFD 2007 was held in Antalya, Turkey, from May 21 to 24, 2007.

Fries:2005:MPG

- [FM05] Thomas-Peter Fries and Hermann Georg Matthies. Mesh-free Petrov–Galerkin methods for the incompressible Navier–Stokes equations. In Griebel and Schweitzer [GS05], pages 39–54. CODEN LNCSA6. ISBN 3-540-23026-2 (print), 3-540-27099-X (e-book). ISSN 1439-7358 (print), 2197-7100 (electronic). LCCN QA377 .M452 2005. URL http://link.springer.com/content/pdf/10.1007/3-540-27099-X_3. Proceedings of the Second International Workshop on Meshfree Methods for Partial Differential Equations, Institut für Numerische Simulation Rheinische Friedrich–Wilhelms Universität Bonn, September 15–17, 2003.

Franz:2011:LPS

- [FM11] Sebastian Franz and Gunar Matthies. Local projection stabilisation on layer-adapted meshes for convection-diffusion problems with characteristic layers (Part I and II). In Clavero et al. [CGL11], pages 127–138. CODEN LNCSA6. ISBN 3-642-19664-0 (print), 3-642-19665-9 (e-book). ISSN 1439-7358 (print), 2197-7100 (electronic). LCCN ????. URL http://link.springer.com/content/pdf/10.1007/978-3-642-19665-2_14. Selected papers from the proceedings of BAIL 2010 (Boundary and Interior Layers — Computational and Asymptotic Methods), held from 5 to 9 July 2010 at the University of Zaragoza, Spain.

Fernandez-Mendez:2002:CFE

- [FMH02] Sonia Fernández-Méndez and Antonio Huerta. Coupling finite elements and particles for adaptivity: an application to consistently stabilized convection-diffusion. In Griebel and Schweitzer [GS02b], pages 117–129. CODEN LNCSA6. ISBN 3-540-43891-2 (print), 3-642-56103-9 (e-book). ISSN 1439-7358 (print), 2197-7100 (electronic). LCCN QA377 .M45 2003. URL http://link.springer.com/content/pdf/10.1007/978-3-642-56103-0_9. Proceedings of a workshop on Meshfree Methods for Partial Differential Equations, Institut für Angewandte Mathematik, Rheinische Friedrich-Wilhelms Universität Bonn, September 11–14, 2001.

Faustmann:2014:NPE

- [FMP14] Markus Faustmann, Jens M. Melenk, and Dirk Praetorius. A new proof for existence of H -matrix approximants to the inverse of FEM matrices: The Dirichlet problem for the Laplacian. In Azaïez et al. [AHE13], pages 249–259. ISBN 3-319-01600-8 (hardcover). ISSN 1439-7358 (print), 2197-7100 (electronic). LCCN ???? URL http://link.springer.com/chapter/10.1007/978-3-319-01601-6_20/.

Formaggia:2002:ODM

- [FN02] Luca Formaggia and Fabio Nobile. A one dimensional model for blood flow: Application to vascular prosthesis. In Babuška et al. [BCM02], pages 137–153. CODEN LNCSA6. ISBN 3-540-42399-0 (print), 3-642-56288-4 (e-book). ISSN 1439-7358 (print), 2197-7100 (electronic). LCCN QA808.2 .I59 2000. URL http://link.springer.com/content/pdf/10.1007/978-3-642-56288-4_10.

Faille:2005:FVM

- [FNSW05] I. Faille, F. Nataf, L. Saas, and F. Willien. Finite volume methods on non-matching grids with arbitrary interface conditions and highly heterogeneous media. In Kornhuber et al. [KHP⁺05], pages 243–250. CODEN LNCSA6. ISBN 3-540-22523-4 (print), 3-540-26825-1 (e-book). ISSN 1439-7358 (print), 2197-7100 (electronic). LCCN QA402.2 .I55 2003. URL http://link.springer.com/content/pdf/10.1007/3-540-26825-1_22. Papers from the 15th International Conference on Domain Decomposition, Freie Universität Berlin (FU), Berlin, Germany, July 21–25, 2003.

Farrell:2009:EPR

- [FO09] P. A. Farrell and E. O’Riordan. Examination of the performance of robust numerical methods for singularly perturbed quasilinear problems with interior layers. In Hegarty et al. [HKOS09], pages 141–151. CODEN LNCSA6. ISBN 3-642-00604-3 (print), 3-642-00605-1 (e-book). ISSN 1439-7358 (print), 2197-7100 (electronic). LCCN ???? URL http://link.springer.com/content/pdf/10.1007/978-3-642-00605-0_10.

Follana:2005:ISF

- [Fol05] Eduardo Follana. Improved staggered fermions. In Borici et al. [BFJ⁺05], pages 75–81. CODEN LNCSA6. ISBN 3-540-21257-4 (print), 3-540-28504-0 (e-book). ISSN 1439-7358 (print), 2197-7100 (electronic). LCCN QC793.3.Q35 I56 2003. URL http://link.springer.com/content/pdf/10.1007/3-540-28504-0_7.

Fomberg:2003:SNT

- [Fom03] Bengt Fomberg. Some numerical techniques for Maxwell’s equations in different types of geometries. In Ainsworth et al. [ADD⁺03], pages 265–299. CODEN LNCSA6. ISBN 3-540-00744-X (print), 3-642-55483-0 (e-book). ISSN 1439-7358 (print), 2197-7100 (electronic). LCCN QC661 .T67 2003. URL http://link.springer.com/content/pdf/10.1007/978-3-642-55483-4_7. Proceedings of the LMS Durham Symposium on Computational Methods for Wave Propagation in Direct Scattering University of Durham, 15–25 July 2002.

Fortmann:2014:DSF

- [For14] Carsten Fortmann. Dynamical structure factor in high energy density plasmas and application to X-ray Thomson scattering. In Graziani et al. [GDRT14b], pages 177–201. ISBN 3-319-04912-7. ISSN 1439-7358 (print), 2197-7100 (electronic). LCCN QA71-90. URL http://link.springer.com/chapter/10.1007/978-3-319-04912-0_7/.

Fragakis:2007:PAF

- [FP07] Yannis Fragakis and Manolis Papadrakakis. The primal alternatives of the FETI methods equipped with the lumped preconditioner. In Widlund and Keyes [WK07], pages 365–371.

CODEN LNCSA6. ISBN 3-540-34468-3 (print), 3-540-34469-1 (e-book). ISSN 1439-7358 (print), 2197-7100 (electronic). LCCN QA402.2 .I55 2005. URL http://link.springer.com/content/pdf/10.1007/978-3-540-34469-8_45. Proceedings of the *Sixteenth International Conference on Domain Decomposition Methods*, New York City, January 11–15, 2005.

Froehle:2015:NEM

- [FP15] Bradley Froehle and Per-Olof Persson. Nonlinear elasticity for mesh deformation with high-order discontinuous Galerkin methods for the Navier–Stokes equations on deforming domains. In Kirby et al. [KBH15], pages 73–85. ISBN 3-319-19799-1, 3-319-19800-9 (e-book). LCCN QA377. URL http://link.springer.com/chapter/10.1007/978-3-319-19800-2_5/.

Felippa:2010:CIT

- [FPR10] C. A. Felippa, K. C. Park, and M. R. Ross. A classification of interface treatments for FSI. In Bungartz et al. [BMS10], pages 27–51. CODEN LNCSA6. ISBN 3-642-14205-2 (print), 3-642-14206-0 (e-book). ISSN 1439-7358 (print), 2197-7100 (electronic). LCCN TA357.5.F58 F586b 2010. URL http://link.springer.com/content/pdf/10.1007/978-3-642-14206-2_2. Selected contributions from the *First International Workshop on Computational Engineering — special topic Fluid-Structure Interactions* held in Herrsching, Germany, in October 2009.

Falk:2000:EFE

- [FR00] Richard S. Falk and Gerard R. Richter. Explicit finite element methods for linear hyperbolic systems. In Cockburn et al. [CKS00b], pages 209–219. CODEN LNCSA6. ISBN 3-540-66787-3, 3-642-64098-2 (print), 3-642-59721-1 (e-book). ISSN 1439-7358 (print), 2197-7100 (electronic). LCCN TA347.F5 D57 2000. URL http://link.springer.com/chapter/10.1007/978-3-642-59721-3_15/. Papers from the first international symposium on DGM Newport, Rhode Island, USA, May 24–26, 1999.

Frederix:2011:DFA

- [FR11] Yves Frederix and Dirk Roose. A drift-filtered approach to diffusion estimation for multiscale processes. In Gorban and Roose [GR11b], pages 269–286. CODEN LNCSA6. ISBN

3-642-14940-5 (print), 3-642-14941-3 (e-book). ISSN 1439-7358 (print), 2197-7100 (electronic). LCCN QA401 .C67 2011. URL http://link.springer.com/content/pdf/10.1007/978-3-642-14941-2_14. Extended versions of selected talks given at the international research workshop: *Coping with Complexity: Model Reduction and Data Analysis*, Ambleside, Lake District, UK, August 31–September 4, 2009 in conjunction with the A4A6, the *6th Conference on Algorithms for Approximation*.

Freund:2005:PTM

[Fre05a]

Roland W. Freund. Padé-type model reduction of second-order and higher-order linear dynamical systems. In Benner et al. [BMS05c], pages 191–223. CODEN LNCSA6. ISBN 3-540-24545-6 (print), 3-540-27909-1 (e-book). ISSN 1439-7358 (print), 2197-7100 (electronic). LCCN TA347.C68 D56 2005. URL http://link.springer.com/content/pdf/10.1007/3-540-27909-1_8.

Freund:2005:RCE

[Fre05b]

Roland W. Freund. RCL circuit equations. In Benner et al. [BMS05c], pages 367–371. CODEN LNCSA6. ISBN 3-540-24545-6 (print), 3-540-27909-1 (e-book). ISSN 1439-7358 (print), 2197-7100 (electronic). LCCN TA347.C68 D56 2005. URL http://link.springer.com/content/pdf/10.1007/3-540-27909-1_22.

Fridman:2004:ORN

[Fri04]

Emilia Fridman. Output regulation of nonlinear neutral systems. In Niculescu and Gu [NG04], pages 233–244. CODEN LNCSA6. ISBN 3-540-20890-9 (print), 3-642-18482-0 (e-book). ISSN 1439-7358 (print), 2197-7100 (electronic). LCCN TJ213 .A253 2004. URL http://link.springer.com/content/pdf/10.1007/978-3-642-18482-6_17. Most of the chapters are based on the materials presented in the CNRS-NSF Workshop *Advances in Time-Delay Systems* held in Paris in January 22–24, 2003.

Franke:1999:APN

[FRXT99]

M. Franke, Th. Rung, L. Xue, and F. Thiele. Application of parallel numerical flow solvers invoking advanced turbulence-transport models to aircraft components. In Bungartz et al. [BDZ99], pages 81–90. CODEN LNCSA6.

ISBN 3-540-65730-4 (print), 3-642-60155-3 (e-book). ISSN 1439-7358 (print), 2197-7100 (electronic). LCCN Q183.9.I58 1998. URL http://link.springer.com/chapter/10.1007/978-3-642-60155-2_7/.

Fryer:2006:RHA

- [Fry06] Chris L. Fryer. Radiation hydrodynamics in astrophysics. In Graziani [Gra06], pages 1–14. CODEN LNCSA6. ISBN 3-540-28122-3 (print), 3-540-28125-8 (e-book). ISSN 1439-7358 (print), 2197-7100 (electronic). LCCN MLCM 2006/40189 (Q); QC793.3.T7 C66 2006. URL http://link.springer.com/content/pdf/10.1007/3-540-28125-8_1.

Fahl:2003:ROM

- [FS03] Marco Fahl and Ekkehard W. Sachs. Reduced order modelling approaches to PDE-constrained optimization based on proper orthogonal decomposition. In Biegler et al. [BGHvBW03a], pages 268–280. CODEN LNCSA6. ISBN 3-540-05045-0 (print), 3-642-55508-X (e-book). ISSN 1439-7358 (print), 2197-7100 (electronic). LCCN QA402.5 .L358 2003. URL http://link.springer.com/content/pdf/10.1007/978-3-642-55508-4_16.

Fattouh:2004:MMS

- [FS04] Anas Fattouh and Olivier Sename. A model matching solution of robust observer design for time-delay systems. In Niculescu and Gu [NG04], pages 137–152. CODEN LNCSA6. ISBN 3-540-20890-9 (print), 3-642-18482-0 (e-book). ISSN 1439-7358 (print), 2197-7100 (electronic). LCCN TJ213 .A253 2004. URL http://link.springer.com/content/pdf/10.1007/978-3-642-18482-6_10. Most of the chapters are based on the materials presented in the CNRS-NSF Workshop *Advances in Time-Delay Systems* held in Paris in January 22–24, 2003.

Farjoun:2008:SOD

- [FS08] Yossi Farjoun and Benjamin Seibold. Solving one dimensional scalar conservation laws by particle management. In Griebel and Schweitzer [GS08d], pages 95–109. CODEN LNCSA6. ISBN 3-540-79993-1 (print), 3-540-79994-X (e-book). ISSN 1439-7358 (print), 2197-7100 (electronic). LCCN ????. URL http://link.springer.com/content/pdf/10.1007/978-3-540-79994-8_6. Fourth International Workshop

on Meshfree Methods for Partial Differential Equations held from September 17 to September 20, 2007 in Bonn, Germany.

Farjoun:2011:EPM

- [FS11] Yossi Farjoun and Benjamin Seibold. An exact particle method for scalar conservation laws and its application to stiff reaction kinetics. In Griebel and Schweitzer [GS11c], pages 105–124. CODEN LNCSA6. ISBN 3-642-16228-2 (print), 3-642-16229-0 (e-book). ISSN 1439-7358 (print), 2197-7100 (electronic). LCCN ???? URL http://link.springer.com/content/pdf/10.1007/978-3-642-16229-9_7. Proceedings of the Fifth International Workshop on Meshfree Methods for Partial Differential Equations held from August 17 to August 19, 2009 in Bonn, Germany.

Farjoun:2013:CPM

- [FS13] Yossi Farjoun and Benjamin Seibold. A characteristic particle method for traffic flow simulations on highway networks. In Griebel and Schweitzer [GS13b], pages 199–219. CODEN LNCSA6. ISBN 3-642-32978-0 (print), 3-642-32979-9 (e-book). ISSN 1439-7358 (print), 2197-7100 (electronic). LCCN QA297 .I58 2011. URL http://link.springer.com/content/pdf/10.1007/978-3-642-32979-1_13. Proceedings of the Sixth International Workshop on Meshfree Methods for Partial Differential Equations, October 4–6, 2011, Bonn, Germany.

Franz:2006:RWF

- [FSA⁺06] Astrid Franz, Christian Schulzky, Do Hoang Ngoc Anh, Stefan Seeger, and Janett Balg. Random walks on fractals. In Hoffmann and Meyer [HM06], pages 303–313. CODEN LNCSA6. ISBN 3-540-33539-0 (print), 3-540-33541-2 (e-book). ISSN 1439-7358 (print), 2197-7100 (electronic). LCCN QA76.58 .P358 2006. URL http://link.springer.com/content/pdf/10.1007/3-540-33541-2_17.

Fischer:2002:HUC

- [FSDC02] Alexander Fischer, Christof Schütte, Peter Deuffhard, and Frank Cordes. Hierarchical uncoupling-coupling of metastable conformations. In Schlick and Gan [SG02], pages 235–259. CODEN LNCSA6. ISBN 3-540-43756-8 (print), 3-642-56080-6 (e-book). ISSN 1439-7358 (print), 2197-7100 (electronic).

LCCN QP517.M3 A384 2000. URL http://link.springer.com/content/pdf/10.1007/978-3-642-56080-4_10.

Formaggia:2006:DDT

- [FSS06] Luca Formaggia, Marzio Sala, and Fausto Saleri. Domain decomposition techniques. In Bruaset and Tveito [BT06], pages 135–163. CODEN LNCSA6. ISBN 3-540-29076-1 (print), 3-540-31619-1 (e-book). ISSN 1439-7358 (print), 2197-7100 (electronic). LCCN QA377 .N87 2006. URL http://link.springer.com/content/pdf/10.1007/3-540-31619-1_4.

Feng:2014:MSP

- [FSXZ14] Chunsheng Feng, Shi Shu, Jinchao Xu, and Chen-Song Zhang. A multi-stage preconditioner for the black oil model and its OpenMP implementation. In Erhel et al. [EGH⁺14], pages 141–153. ISBN 3-319-05788-X (paperback), 3-319-05789-8 (e-book). ISSN 1439-7358 (print), 2197-7100 (electronic). LCCN QA71-90. URL http://link.springer.com/chapter/10.1007/978-3-319-05789-7_11/.

Fuchs:2000:IDI

- [Fuc00] Henry Fuchs. Immersive displays for the individual, the group, and for networked collaboration. In Engquist et al. [EJHS00], page 98. CODEN LNCSA6. ISBN 3-540-67264-8 (print), 3-642-57313-4 (e-book). ISSN 1439-7358 (print), 2197-7100 (electronic). LCCN QA76.9.C65 S535 2000. URL http://link.springer.com/accesspage/chapter/10.1007/978-3-642-57313-2_10.

Funaro:1997:E

- [Fun97a] Daniele Funaro. Extensions. In *Spectral Elements for Transport-Dominated Equations* [Fun97f], pages 163–185. CODEN LNCSA6. ISBN 3-540-62649-2 (print), 3-642-59185-X (e-book). ISSN 1439-7358 (print), 2197-7100 (electronic). LCCN QA377 .F85 1997. URL http://link.springer.com/chapter/10.1007/978-3-642-59185-3_6/.

Funaro:1997:FM

- [Fun97b] Daniele Funaro. Front matter. In *Spectral Elements for Transport-Dominated Equations* [Fun97f], pages i–x. CODEN LNCSA6. ISBN 3-540-62649-2 (print), 3-642-59185-X (e-book). ISSN 1439-7358 (print), 2197-7100 (electronic).

LCCN QA377 .F85 1997. URL <http://link.springer.com/content/pdf/bfm:978-3-642-59185-3/1>.

Funaro:1997:OKB

- [Fun97c] Daniele Funaro. Other kinds of boundary conditions. In *Spectral Elements for Transport-Dominated Equations* [Fun97f], pages 55–74. CODEN LNCSA6. ISBN 3-540-62649-2 (print), 3-642-59185-X (e-book). ISSN 1439-7358 (print), 2197-7100 (electronic). LCCN QA377 .F85 1997. URL http://link.springer.com/chapter/10.1007/978-3-642-59185-3_3/.

Funaro:1997:PES

- [Fun97d] Daniele Funaro. The Poisson equation in the square. In *Spectral Elements for Transport-Dominated Equations* [Fun97f], pages 1–29. CODEN LNCSA6. ISBN 3-540-62649-2 (print), 3-642-59185-X (e-book). ISSN 1439-7358 (print), 2197-7100 (electronic). LCCN QA377 .F85 1997. URL http://link.springer.com/chapter/10.1007/978-3-642-59185-3_1/.

Funaro:1997:SEM

- [Fun97e] Daniele Funaro. The spectral element method. In *Spectral Elements for Transport-Dominated Equations* [Fun97f], pages 75–125. CODEN LNCSA6. ISBN 3-540-62649-2 (print), 3-642-59185-X (e-book). ISSN 1439-7358 (print), 2197-7100 (electronic). LCCN QA377 .F85 1997. URL http://link.springer.com/chapter/10.1007/978-3-642-59185-3_4/.

Funaro:1997:SET

- [Fun97f] Daniele Funaro. *Spectral Elements for Transport-Dominated Equations*, volume 1 of *Lecture Notes in Computational Science and Engineering*. Springer-Verlag Inc., New York, NY, USA, 1997. CODEN LNCSA6. ISBN 3-540-62649-2 (print), 3-642-59185-X (e-book). ISSN 1439-7358 (print), 2197-7100 (electronic). x + 211 pp. LCCN QA377 .F85 1997. URL <http://link.springer.com/book/10.1007/978-3-642-59185-3>; <http://www.springerlink.com/content/978-3-642-59185-3>.

Funaro:1997:STD

- [Fun97g] Daniele Funaro. Steady transport-diffusion equations. In *Spectral Elements for Transport-Dominated Equations* [Fun97f], pages 31–54. CODEN LNCSA6. ISBN 3-540-62649-2 (print), 3-642-59185-X (e-book). ISSN 1439-7358 (print), 2197-7100 (electronic).

(electronic). LCCN QA377 .F85 1997. URL http://link.springer.com/chapter/10.1007/978-3-642-59185-3_2/.

Funaro:1997:TD

- [Fun97h] Daniele Funaro. Time discretization. In *Spectral Elements for Transport-Dominated Equations* [Fun97f], pages 127–162. CODEN LNCSA6. ISBN 3-540-62649-2 (print), 3-642-59185-X (e-book). ISSN 1439-7358 (print), 2197-7100 (electronic). LCCN QA377 .F85 1997. URL http://link.springer.com/chapter/10.1007/978-3-642-59185-3_5/.

Falcone:2014:RRS

- [FV14] Maurizio Falcone and Marco Verani. Recent results in shape optimization and optimal control for PDEs. In Hoppe [Hop14], pages 65–94. ISBN 3-319-08024-5 (paperback), 3-319-08025-3 (e-book). ISSN 1439-7358 (print), 2197-7100 (electronic). LCCN QA71-90; QA377. URL http://link.springer.com/chapter/10.1007/978-3-319-08025-3_3/.

Flemisch:2007:NMN

- [FW07] Bernd Flemisch and Barbara I. Wohlmuth. Nonconforming methods for nonlinear elasticity problems. In Widlund and Keyes [WK07], pages 65–76. CODEN LNCSA6. ISBN 3-540-34468-3 (print), 3-540-34469-1 (e-book). ISSN 1439-7358 (print), 2197-7100 (electronic). LCCN QA402.2 .I55 2005. URL http://link.springer.com/content/pdf/10.1007/978-3-540-34469-8_6. Proceedings of the *Sixteenth International Conference on Domain Decomposition Methods*, New York City, January 11–15, 2005.

Felts:2002:FRU

- [FWGB02] Anthony K. Felts, Anders Wallqvist, Emilio Gallicchio, and Donna Bassolino. Fold recognition using the OPLS all-atom potential and the surface generalized Born solvent model. In Schlick and Gan [SG02], pages 445–476. CODEN LNCSA6. ISBN 3-540-43756-8 (print), 3-642-56080-6 (e-book). ISSN 1439-7358 (print), 2197-7100 (electronic). LCCN QP517.M3 A384 2000. URL http://link.springer.com/content/pdf/10.1007/978-3-642-56080-4_18.

Fasshauer:2013:KBC

- [FY13] Gregory E. Fasshauer and Qi Ye. Kernel-based collocation methods versus Galerkin finite element methods for ap-

proximating elliptic stochastic partial differential equations. In Griebel and Schweitzer [GS13b], pages 155–170. CODEN LNCSA6. ISBN 3-642-32978-0 (print), 3-642-32979-9 (e-book). ISSN 1439-7358 (print), 2197-7100 (electronic). LCCN QA297 .I58 2011. URL http://link.springer.com/content/pdf/10.1007/978-3-642-32979-1_10. Proceedings of the Sixth International Workshop on Meshfree Methods for Partial Differential Equations, October 4–6, 2011, Bonn, Germany.

Fabris:2007:CFO

- [FZ07] Drazen Fabris and Sergio Zarantonello. A Cousin formulation for overlapped domain decomposition applied to the Poisson equation. In Widlund and Keyes [WK07], pages 539–546. CODEN LNCSA6. ISBN 3-540-34468-3 (print), 3-540-34469-1 (e-book). ISSN 1439-7358 (print), 2197-7100 (electronic). LCCN QA402.2 .I55 2005. URL http://link.springer.com/content/pdf/10.1007/978-3-540-34469-8_67. Proceedings of the *Sixteenth International Conference on Domain Decomposition Methods*, New York City, January 11–15, 2005.

Gorobets:2009:TPC

- [GA09] Andrey V. Gorobets and Ilya V. Abalakin. Technology of parallelization for 2D and 3D CFD/ CAA codes based on high-accuracy explicit methods on unstructured meshes. In Tuncer et al. [TGEM09], pages 253–260. CODEN LNCSA6. ISBN 3-540-92743-3 (print), 3-540-92744-1 (e-book). ISSN 1439-7358 (print), 2197-7100 (electronic). LCCN ???? URL http://link.springer.com/content/pdf/10.1007/978-3-540-92744-0_31. Parallel CFD 2007 was held in Antalya, Turkey, from May 21 to 24, 2007.

Gonzalez:2005:SBN

- [GACD05] D. González, I. Alfaro, E. Cueto, and M. Doblaré. The α -shape based natural element method in solid and fluid mechanics. In Griebel and Schweitzer [GS05], pages 55–69. CODEN LNCSA6. ISBN 3-540-23026-2 (print), 3-540-27099-X (e-book). ISSN 1439-7358 (print), 2197-7100 (electronic). LCCN QA377 .M452 2005. URL http://link.springer.com/content/pdf/10.1007/3-540-27099-X_4. Proceedings of the Second International Workshop on Meshfree Methods for Partial Differential Equations, Institut für Numerische

Simulation Rheinische Friedrich–Wilhelms Universität Bonn, September 15–17, 2003.

Ganapol:2006:VCR

- [Gan06] Barry D. Ganapol. Vegetation canopy reflectance modeling with turbid medium radiative transfer. In Graziani [Gra06], pages 173–210. CODEN LNCSA6. ISBN 3-540-28122-3 (print), 3-540-28125-8 (e-book). ISSN 1439-7358 (print), 2197-7100 (electronic). LCCN MLCM 2006/40189 (Q); QC793.3.T7 C66 2006. URL http://link.springer.com/content/pdf/10.1007/3-540-28125-8_9.

Ganapol:2008:AAB

- [Gan08a] B. D. Ganapol. The art of analytical benchmarking. In Graziani [Gra08b], pages 105–134. CODEN LNCSA6. ISBN 3-540-77361-4 (print), 3-540-77362-2 (e-book). ISSN 1439-7358 (print), 2197-7100 (electronic). LCCN ???? URL http://link.springer.com/content/pdf/10.1007/978-3-540-77362-7_4. Proceedings of the 2006 Computational Methods in Transport (CMTW) conference.

Gander:2008:MTD

- [Gan08b] Martin J. Gander. MINISYMPOSIUM 10: Time domain decomposition methods for evolution problems. In Langer et al. [LDK⁺08], page 399. CODEN LNCSA6. ISBN 3-540-75198-X (print), 3-540-75199-8 (e-book). ISSN 1439-7358 (print), 2197-7100 (electronic). LCCN QA402.2 .I55 2006. URL http://link.springer.com/content/pdf/10.1007/978-3-540-75199-1_50. 17th International Conference on Domain Decomposition Methods held at St. Wolfgang/Strobl, Austria, July 3–7, 2006.

Garbey:2008:DSH

- [Gar08] Marc Garbey. A direct solver for the heat equation with domain decomposition in space and time. In Langer et al. [LDK⁺08], pages 501–508. CODEN LNCSA6. ISBN 3-540-75198-X (print), 3-540-75199-8 (e-book). ISSN 1439-7358 (print), 2197-7100 (electronic). LCCN QA402.2 .I55 2006. URL http://link.springer.com/content/pdf/10.1007/978-3-540-75199-1_63. 17th International Conference on Domain Decomposition Methods held at St. Wolfgang/Strobl, Austria, July 3–7, 2006.

Garcke:2013:SGN

- [Gar13] Jochen Garcke. Sparse grids in a nutshell. In Garcke and Griebel [GG13], pages 57–80. CODEN LNCSA6. ISBN 3-642-31702-2 (print), 3-642-31703-0 (e-book). ISSN 1439-7358 (print), 2197-7100 (electronic). LCCN ???? URL http://link.springer.com/content/pdf/10.1007/978-3-642-31703-3_3. Proceedings of workshop in Bonn, Germany, from May 16–20, 2011.

Gaspar:2000:BBH

- [Gás00] Csaba Gáspár. Biharmonic and bi-Helmholtz type scattered data interpolation using quadtrees and multigrid technique. In Dick et al. [DRV00], pages 122–128. CODEN LNCSA6. ISBN 3-540-67157-9 (print), 3-642-58312-1 (e-book). ISSN 1439-7358 (print), 2197-7100 (electronic). LCCN QA377 .E94 1999. URL http://link.springer.com/chapter/10.1007/978-3-642-58312-4_16/.

Gaspar:2002:FML

- [Gás02] Csaba Gáspár. Fast multi-level meshless methods based on the implicit use of radial basis functions. In Griebel and Schweitzer [GS02b], pages 143–160. CODEN LNCSA6. ISBN 3-540-43891-2 (print), 3-642-56103-9 (e-book). ISSN 1439-7358 (print), 2197-7100 (electronic). LCCN QA377 .M45 2003. URL http://link.springer.com/content/pdf/10.1007/978-3-642-56103-0_11. Proceedings of a workshop on Meshfree Methods for Partial Differential Equations, Institut für Angewandte Mathematik, Rheinische Friedrich-Wilhelms Universität Bonn, September 11–14, 2001.

Gaspar:2011:MVI

- [Gás11] Csaba Gáspár. Meshfree vectorial interpolation based on the generalized Stokes problem. In Griebel and Schweitzer [GS11c], pages 65–80. CODEN LNCSA6. ISBN 3-642-16228-2 (print), 3-642-16229-0 (e-book). ISSN 1439-7358 (print), 2197-7100 (electronic). LCCN ???? URL http://link.springer.com/content/pdf/10.1007/978-3-642-16229-9_4. Proceedings of the Fifth International Workshop on Meshfree Methods for Partial Differential Equations held from August 17 to August 19, 2009 in Bonn, Germany.

Gaspar:2013:SRV

- [Gás13] Csaba Gáspár. Some regularized versions of the method of fundamental solutions. In Griebel and Schweitzer [GS13b], pages 181–198. CODEN LNCSA6. ISBN 3-642-32978-0 (print), 3-642-32979-9 (e-book). ISSN 1439-7358 (print), 2197-7100 (electronic). LCCN QA297 .I58 2011. URL http://link.springer.com/content/pdf/10.1007/978-3-642-32979-1_12. Proceedings of the Sixth International Workshop on Meshfree Methods for Partial Differential Equations, October 4–6, 2011, Bonn, Germany.

Gaspar:2015:RML

- [Gás15] Csaba Gáspár. Regularization and multi-level tools in the method of fundamental solutions. In Griebel and Schweitzer [GS14], pages 145–162. ISBN 3-319-06898-9. LCCN QA71 .G75 2015; QA377. URL http://link.springer.com/chapter/10.1007/978-3-319-06898-5_8/.

Gay:2006:SDE

- [Gay06] David M. Gay. Semiautomatic differentiation for efficient gradient computations. In Bücker et al. [BCH⁺06], pages 147–158. CODEN LNCSA6. ISBN 3-540-28403-6 (print), 3-540-28438-9 (e-book). ISSN 1439-7358 (print), 2197-7100 (electronic). LCCN QA304 .I58 2006. URL http://link.springer.com/content/pdf/10.1007/3-540-28438-9_13. Proceedings of the Fourth International Conference on Automatic Differentiation, July 20–23, Chicago, Illinois.

Gerritsma:2015:LCH

- [GB15] Marc Gerritsma and Pavel Bochev. A locally conservative high-order least-squares formulation in curvilinear coordinates. In Kirby et al. [KBH15], pages 227–235. ISBN 3-319-19799-1, 3-319-19800-9 (e-book). LCCN QA377. URL http://link.springer.com/chapter/10.1007/978-3-319-19800-2_19/.

Germaschewski:2005:UKS

- [GBG⁺05] Kai Germaschewski, Amitava Bhattacharjee, Rainer Grauer, David Keyes, and Barry Smith. Using Krylov–Schwarz methods in an adaptive mesh refinement environment. In Plewa et al. [PLW05], pages 115–124. CODEN LNCSA6. ISBN 3-540-21147-0 (print), 3-540-27039-6 (e-book). ISSN 1439-7358 (print), 2197-7100 (electronic). LCCN QA377 .C46

2003. URL http://link.springer.com/content/pdf/10.1007/3-540-27039-6_8.

Grote:2006:HOR

- [GBM06] Johannes Grote, Martin Berz, and Kyoko Makino. High-order representation of Poincaré maps. In Bückler et al. [BCH⁺06], pages 59–66. CODEN LNCSA6. ISBN 3-540-28403-6 (print), 3-540-28438-9 (e-book). ISSN 1439-7358 (print), 2197-7100 (electronic). LCCN QA304 .I58 2006. URL http://link.springer.com/content/pdf/10.1007/3-540-28438-9_5. Proceedings of the Fourth International Conference on Automatic Differentiation, July 20–23, Chicago, Illinois.

Göz:2002:DNS

- [GBS02] M. F. Göz, B. Bunner, and M. Sommerfeld. Direct numerical simulation of bubble swarms with a parallel front-tracking method. In Breuer et al. [BDZ02], pages 97–106. CODEN LNCSA6. ISBN 3-540-42946-8 (print), 3-642-55919-0 (e-book). ISSN 1439-7358 (print), 2197-7100 (electronic). LCCN Q183.9 .I58 2001. URL http://link.springer.com/content/pdf/10.1007/978-3-642-55919-8_11.

Gorokhovski:2007:CLS

- [GC07] Mikhael Gorokhovski and Anna Chtab. LES computation of Lagrangian statistics in homogeneous stationary turbulence; application of universalities under scaling symmetry at sub-grid scales. In Kassinos et al. [KLIM07], pages 63–75. CODEN LNCSA6. ISBN 3-540-34233-8 (print), 3-540-34234-6 (e-book). ISSN 1439-7358 (print), 2197-7100 (electronic). LCCN TA357.5.T87 C66 2007. URL http://link.springer.com/content/pdf/10.1007/978-3-540-34234-2_5. Proceedings of the symposium on *Complex Effects in Large Eddy Simulation* held in Lemesos (Limassol), Cyprus, September 21–24, 2005.

Ghosh:2015:NCF

- [GC15] Debojyoti Ghosh and Emil M. Constantinescu. Non-linear compact finite-difference schemes with semi-implicit time stepping. In Kirby et al. [KBH15], pages 237–245. ISBN 3-319-19799-1, 3-319-19800-9 (e-book). LCCN QA377. URL http://link.springer.com/chapter/10.1007/978-3-319-19800-2_20/.

Gonzalez-Cinca:2003:DBS

- [GCC03] Ricard Gonzalez-Cinca and Yves Couder. Deterministic behaviour in sidebranching development. In Emmerich et al. [ENS03], page ?? CODEN LNCSA6. ISBN 3-540-40367-1. ISSN 1439-7358 (print), 2197-7100 (electronic). LCCN QC173.4.I57 I57 2003. URL <http://www.loc.gov/catdir/enhancements/fy0818/2003060231-d.html>. Papers from the workshop on “Computational Physics of Transport and Interfacial Dynamics”, Dresden, February 25–March 8, 2002.

Gulcat:2009:PSF

- [GD09] Ulgen Gulcat and Ali Dinler. Parallel solution of flows with high velocity and/or enthalpy gradients. In Tuncer et al. [TGEM09], pages 425–432. CODEN LNCSA6. ISBN 3-540-92743-3 (print), 3-540-92744-1 (e-book). ISSN 1439-7358 (print), 2197-7100 (electronic). LCCN ???? URL http://link.springer.com/content/pdf/10.1007/978-3-540-92744-0_53. Parallel CFD 2007 was held in Antalya, Turkey, from May 21 to 24, 2007.

Gerritsma:2010:LSS

- [GD10] Marc Gerritsma and Bart De Maerschalck. Least-squares spectral element methods in computational fluid dynamics. In Koren and Vuik [KV10], pages 179–227. CODEN LNCSA6. ISBN 3-642-03343-1 (print), 3-642-03344-X (e-book). ISSN 1439-7358 (print), 2197-7100 (electronic). LCCN Q183.9 .A35 2010. URL http://link.springer.com/content/pdf/10.1007/978-3-642-03344-5_7.

Galliat:2002:AIM

- [GDRC02] T. Galliat, P. Deuffhard, R. Roitzsch, and F. Cordes. Automatic identification of metastable conformations via self-organized neural networks. In Schlick and Gan [SG02], pages 260–284. CODEN LNCSA6. ISBN 3-540-43756-8 (print), 3-642-56080-6 (e-book). ISSN 1439-7358 (print), 2197-7100 (electronic). LCCN QP517.M3 A384 2000. URL http://link.springer.com/content/pdf/10.1007/978-3-642-56080-4_11.

Graziani:2014:FM

- [GDRT14a] Frank Graziani, Michael P. Desjarlais, Ronald Redmer, and Samuel B. Trickey. Front matter. In *Frontiers and Challenges in Warm Dense Matter* [GDRT14b], pages i–x. ISBN

3-319-04912-7. ISSN 1439-7358 (print), 2197-7100 (electronic). LCCN QA71-90. URL <http://link.springer.com/content/pdf/bfm:978-3-319-04912-0/1.pdf>.

Graziani:2014:FCW

- [GDRT14b] Frank Graziani, Michael P. Desjarlais, Ronald Redmer, and Samuel B. Trickey, editors. *Frontiers and Challenges in Warm Dense Matter*, volume 96 of *Mathematics and Statistics (Springer-11649)*; *Lecture Notes in Computational Science and Engineering*. Springer-Verlag Inc., New York, NY, USA, 2014. ISBN 3-319-04912-7. ISSN 1439-7358 (print), 2197-7100 (electronic). x + 282 + 89 + 64 pp. LCCN QA71-90.

Guerin:2002:SFV

- [GE02] R. Guérin and M. ElGanaoui. Spectral and finite volume numerical approximations for solutal convection in melted alloys. In Breuer et al. [BDZ02], pages 253–260. CODEN LNCSA6. ISBN 3-540-42946-8 (print), 3-642-55919-0 (e-book). ISSN 1439-7358 (print), 2197-7100 (electronic). LCCN Q183.9 .I58 2001. URL http://link.springer.com/content/pdf/10.1007/978-3-642-55919-8_28.

Gu:2009:NAM

- [GE09] X. J. Gu and D. R. Emerson. New approaches to modeling rarefied gas flow in the slip and transition regime. In Tuncer et al. [TGEM09], pages 29–38. CODEN LNCSA6. ISBN 3-540-92743-3 (print), 3-540-92744-1 (e-book). ISSN 1439-7358 (print), 2197-7100 (electronic). LCCN ????? URL http://link.springer.com/content/pdf/10.1007/978-3-540-92744-0_4. Parallel CFD 2007 was held in Antalya, Turkey, from May 21 to 24, 2007.

Garrido:2005:CAT

- [GEF05] Izaskun Garrido, Magne S. Espedal, and Gunnar E. Fladmark. A convergent algorithm for time parallelization applied to reservoir simulation. In Kornhuber et al. [KHP⁺05], pages 469–476. CODEN LNCSA6. ISBN 3-540-22523-4 (print), 3-540-26825-1 (e-book). ISSN 1439-7358 (print), 2197-7100 (electronic). LCCN QA402.2 .I55 2003. URL http://link.springer.com/content/pdf/10.1007/3-540-26825-1_48. Papers from the 15th International Conference on Domain Decomposition, Freie Universität Berlin (FU), Berlin, Germany, July 21–25, 2003.

Gentile:2008:IMC

- [Gen08] N. A. Gentile. Implicit Monte Carlo radiation transport simulations of four test problems. In Graziani [Gra08b], pages 135–150. CODEN LNCSA6. ISBN 3-540-77361-4 (print), 3-540-77362-2 (e-book). ISSN 1439-7358 (print), 2197-7100 (electronic). LCCN ????. URL http://link.springer.com/content/pdf/10.1007/978-3-540-77362-7_5. Proceedings of the 2006 Computational Methods in Transport (CMTW) conference.

Gerritsma:2011:EFS

- [Ger11] Marc Gerritsma. Edge functions for spectral element methods. In Hesthaven and Rønquist [HR11], pages 199–207. CODEN LNCSA6. ISBN 3-642-15336-4 (print), 3-642-15337-2 (e-book). ISSN 1439-7358 (print), 2197-7100 (electronic). LCCN ????. URL http://link.springer.com/content/pdf/10.1007/978-3-642-15337-2_17.

Gemming:2006:AH1

- [GES06] Sibylle Gemming, Andrey Enyashin, and Michael Schreiber. Amorphisation at heterophase interfaces. In Hoffmann and Meyer [HM06], pages 235–254. CODEN LNCSA6. ISBN 3-540-33539-0 (print), 3-540-33541-2 (e-book). ISSN 1439-7358 (print), 2197-7100 (electronic). LCCN QA76.58 .P358 2006. URL http://link.springer.com/content/pdf/10.1007/3-540-33541-2_13.

Griewank:2003:PDO

- [GF03] Andreas Griewank and Christèle Faure. Piggyback differentiation and optimization. In Biegler et al. [BGHvBW03a], pages 148–164. CODEN LNCSA6. ISBN 3-540-05045-0 (print), 3-642-55508-X (e-book). ISSN 1439-7358 (print), 2197-7100 (electronic). LCCN QA402.5 .L358 2003. URL http://link.springer.com/content/pdf/10.1007/978-3-642-55508-4_9.

Gupta:2012:AEO

- [GF12] Abhishek Kr. Gupta and Shaun A. Forth. An AD-enabled optimization tool box in LabVIEWTM. In Forth et al. [FHP⁺12], pages 285–295. CODEN LNCSA6. ISBN 3-642-30022-7 (print), 3-642-30023-5 (e-book). ISSN 1439-7358 (print), 2197-7100 (electronic). LCCN ????. URL http://link.springer.com/content/pdf/10.1007/978-3-642-30023-3_26. Pro-

ceedings of the Sixth International Conference on Automatic Differentiation (AD2012) held July 23–27, 2012, in Fort Collins, Colorado, USA.

Gichuk:2006:KMI

- [GFS06] A. V. Gichuk, L. P. Fedotova, and R. M. Shagaliev. KM-method of iteration convergence acceleration for solving a 2D time-dependent multiple-group transport equation and its modifications. In Graziani [Gra06], pages 435–443. CODEN LNCSA6. ISBN 3-540-28122-3 (print), 3-540-28125-8 (e-book). ISSN 1439-7358 (print), 2197-7100 (electronic). LCCN MLCM 2006/40189 (Q); QC793.3.T7 C66 2006. URL http://link.springer.com/content/pdf/10.1007/3-540-28125-8_20.

Garcke:2013:SGA

- [GG13] Jochen Garcke and Michael Griebel, editors. *Sparse Grids and Applications*, volume 88 of *Lecture Notes in Computational Science and Engineering*. Springer-Verlag Inc., New York, NY, USA, 2013. CODEN LNCSA6. ISBN 3-642-31702-2 (print), 3-642-31703-0 (e-book). ISSN 1439-7358 (print), 2197-7100 (electronic). LCCN ????. URL <http://link.springer.com/book/10.1007/978-3-642-31703-3>; <http://www.springerlink.com/content/978-3-642-31703-3>.
3. Proceedings of workshop in Bonn, Germany, from May 16–20, 2011.

Garcke:2013:IFE

- [GGG13] Jochen Garcke, Thomas Gerstner, and Michael Griebel. Intraday foreign exchange rate forecasting using sparse grids. In Garcke and Griebel [GG13], pages 81–105. CODEN LNCSA6. ISBN 3-642-31702-2 (print), 3-642-31703-0 (e-book). ISSN 1439-7358 (print), 2197-7100 (electronic). LCCN ????. URL http://link.springer.com/content/pdf/10.1007/978-3-642-31703-3_4. Proceedings of workshop in Bonn, Germany, from May 16–20, 2011.

Gander:2011:OSW

- [GGH11] Martin J. Gander, Loïc Gouarin, and Laurence Halpern. Optimized Schwarz waveform relaxation methods: a large scale numerical study. In Huang et al. [HKWX11], pages 261–268. CODEN LNCSA6. ISBN 3-642-11303-6 (print), 3-642-11304-4 (e-book). ISSN 1439-7358 (print), 2197-7100 (electronic).

LCCN QA402.2 .I58 2011. URL http://link.springer.com/content/pdf/10.1007/978-3-642-11304-8_29. Papers presented at the 19th International Conference on Domain Decomposition, DD19, hosted by the School of Mathematics and Computational Science of the Xiangtan University and the Hunan Key Laboratory for Computation and Simulation in Science and Engineering and held in Zhanjiajie, China, August 17–22, 2009.

Gerardo-Giorda:2007:OAI

- [GGN07] Luca Gerardo-Giorda and Frédéric Nataf. Optimized algebraic interface conditions in domain decomposition methods for strongly heterogeneous unsymmetric problems. In Widlund and Keyes [WK07], pages 189–196. CODEN LNCSA6. ISBN 3-540-34468-3 (print), 3-540-34469-1 (e-book). ISSN 1439-7358 (print), 2197-7100 (electronic). LCCN QA402.2 .I55 2005. URL http://link.springer.com/content/pdf/10.1007/978-3-540-34469-8_19. Proceedings of the *Sixteenth International Conference on Domain Decomposition Methods*, New York City, January 11–15, 2005.

Grimm:2015:NAO

- [GGV15] Eva Grimm, Martin Gubisch, and Stefan Volkwein. Numerical analysis of optimality-system POD for constrained optimal control. In Mehl et al. [MBS15], pages 297–317. ISBN 3-319-22996-6, 3-319-22997-4 (e-book). LCCN QA71-90; TA329. URL http://link.springer.com/chapter/10.1007/978-3-319-22997-3_18/.

Gunther:1999:PSC

- [GH99] M. Günther and M. Hoschek. Partitioning strategies in circuit simulation. In Bungartz et al. [BDZ99], pages 343–352. CODEN LNCSA6. ISBN 3-540-65730-4 (print), 3-642-60155-3 (e-book). ISSN 1439-7358 (print), 2197-7100 (electronic). LCCN Q183.9.I58 1998. URL http://link.springer.com/chapter/10.1007/978-3-642-60155-2_28/.

Gander:2007:MST

- [GH07] Martin Gander and Laurence Halpern. MINISYMPOSIUM 5: Space–time parallel methods for partial differential equations. In Widlund and Keyes [WK07], page 265. CODEN LNCSA6. ISBN 3-540-34468-3 (print), 3-540-34469-1 (e-book). ISSN 1439-7358 (print), 2197-7100 (electronic). LCCN QA402.2

.I55 2005. URL http://link.springer.com/content/pdf/10.1007/978-3-540-34469-8_30. Proceedings of the *Sixteenth International Conference on Domain Decomposition Methods*, New York City, January 11–15, 2005.

Gander:2008:NCA

- [GH08a] Martin J. Gander and Ernst Hairer. Nonlinear convergence analysis for the Parareal algorithm. In Langer et al. [LDK⁺08], pages 45–56. CODEN LNCSA6. ISBN 3-540-75198-X (print), 3-540-75199-8 (e-book). ISSN 1439-7358 (print), 2197-7100 (electronic). LCCN QA402.2 .I55 2006. URL http://link.springer.com/content/pdf/10.1007/978-3-540-75199-1_4. 17th International Conference on Domain Decomposition Methods held at St. Wolfgang/Strobl, Austria, July 3–7, 2006.

Gander:2008:MDD

- [GH08b] Martin J. Gander and Laurence Halpern. MINISYMPOSIUM 4: Domain decomposition methods motivated by the physics of the underlying problem. In Langer et al. [LDK⁺08], pages 201–202. CODEN LNCSA6. ISBN 3-540-75198-X (print), 3-540-75199-8 (e-book). ISSN 1439-7358 (print), 2197-7100 (electronic). LCCN QA402.2 .I55 2006. URL http://link.springer.com/content/pdf/10.1007/978-3-540-75199-1_21. 17th International Conference on Domain Decomposition Methods held at St. Wolfgang/Strobl, Austria, July 3–7, 2006.

Garbey:2008:TRT

- [GH08c] Marc Garbey and Bilel Hadri. Toward a real time, image based CFD. In Langer et al. [LDK⁺08], pages 509–515. CODEN LNCSA6. ISBN 3-540-75198-X (print), 3-540-75199-8 (e-book). ISSN 1439-7358 (print), 2197-7100 (electronic). LCCN QA402.2 .I55 2006. URL http://link.springer.com/content/pdf/10.1007/978-3-540-75199-1_64. 17th International Conference on Domain Decomposition Methods held at St. Wolfgang/Strobl, Austria, July 3–7, 2006.

Glowinski:2011:NSL

- [GH11] Roland Glowinski and Qiaolin He. Numerical solution of linear elliptic problems with Robin boundary conditions by a Least-Squares/ fictitious domain method. In Huang et al.

[HKWX11], pages 375–382. CODEN LNCSA6. ISBN 3-642-11303-6 (print), 3-642-11304-4 (e-book). ISSN 1439-7358 (print), 2197-7100 (electronic). LCCN QA402.2 .I58 2011. URL http://link.springer.com/content/pdf/10.1007/978-3-642-11304-8_43. Papers presented at the 19th International Conference on Domain Decomposition, DD19, hosted by the School of Mathematics and Computational Science of the Xiangtan University and the Hunan Key Laboratory for Computation and Simulation in Science and Engineering and held in Zhanjiajie, China, August 17–22, 2009.

Gerstner:2013:DTA

- [GH13a] Thomas Gerstner and Stefan Heinz. Dimension- and time-adaptive multilevel Monte Carlo methods. In Garcke and Griebel [GG13], pages 107–120. CODEN LNCSA6. ISBN 3-642-31702-2 (print), 3-642-31703-0 (e-book). ISSN 1439-7358 (print), 2197-7100 (electronic). LCCN ????. URL http://link.springer.com/content/pdf/10.1007/978-3-642-31703-3_5. Proceedings of workshop in Bonn, Germany, from May 16–20, 2011.

Griebel:2013:ESG

- [GH13b] Michael Griebel and Alexander Hullmann. An efficient sparse grid Galerkin approach for the numerical valuation of basket options under Kou’s jump-diffusion model. In Garcke and Griebel [GG13], pages 121–150. CODEN LNCSA6. ISBN 3-642-31702-2 (print), 3-642-31703-0 (e-book). ISSN 1439-7358 (print), 2197-7100 (electronic). LCCN ????. URL http://link.springer.com/content/pdf/10.1007/978-3-642-31703-3_6. Proceedings of workshop in Bonn, Germany, from May 16–20, 2011.

Griebel:2014:FDF

- [GH14a] Michael Griebel and Jan Hamaekers. Fast Discrete Fourier Transform on generalized sparse grids. In Garcke and Pflüger [GP14], pages 75–107. ISBN 3-319-04536-9 (paperback), 3-319-04537-7 (e-book). LCCN QA188 .S63 2013. URL http://link.springer.com/chapter/10.1007/978-3-319-04537-5_4/.

Griebel:2014:CCT

- [GH14b] Michael Griebel and Helmut Harbrecht. On the convergence of the combination technique. In Garcke and Pflüger [GP14],

pages 55–74. ISBN 3-319-04536-9 (paperback), 3-319-04537-7 (e-book). LCCN QA188 .S63 2013. URL http://link.springer.com/chapter/10.1007/978-3-319-04537-5_3/.

Griebel:2014:BOD

- [GHH14] Michael Griebel, Jan Hamaekers, and Frederik Heber. A bond order dissection ANOVA approach for efficient electronic structure calculations. In Dahlke et al. [DDG⁺14], pages 211–235. ISBN 3-319-08159-4. LCCN ???? URL http://link.springer.com/chapter/10.1007/978-3-319-08159-5_11/.

Gaevskaya:2014:AFE

- [GHHL14] A. Gaevskaya, M. Hintermüller, R. H. W. Hoppe, and C. Löbhard. Adaptive finite elements for optimally controlled elliptic variational inequalities of obstacle type. In Hoppe [Hop14], pages 95–150. ISBN 3-319-08024-5 (paperback), 3-319-08025-3 (e-book). ISSN 1439-7358 (print), 2197-7100 (electronic). LCCN QA71-90; QA377. URL http://link.springer.com/chapter/10.1007/978-3-319-08025-3_4/.

Guillemard:2014:AAA

- [GHI⁺14] Mijail Guillemard, Dennis Heinen, Armin Iske, Sara Krause-Solberg, and Gerlind Plonka. Adaptive approximation algorithms for sparse data representation. In Dahlke et al. [DDG⁺14], pages 281–302. ISBN 3-319-08159-4. LCCN ???? URL http://link.springer.com/chapter/10.1007/978-3-319-08159-5_14/.

Gander:2007:ADP

- [GHJM07] Martin J. Gander, Laurence Halpern, Caroline Japhet, and Véronique Martin. Advection diffusion problems with pure advection approximation in subregions. In Widlund and Keyes [WK07], pages 239–246. CODEN LNCSA6. ISBN 3-540-34468-3 (print), 3-540-34469-1 (e-book). ISSN 1439-7358 (print), 2197-7100 (electronic). LCCN QA402.2 .I55 2005. URL http://link.springer.com/content/pdf/10.1007/978-3-540-34469-8_26. Proceedings of the *Sixteenth International Conference on Domain Decomposition Methods*, New York City, January 11–15, 2005.

Gander:2007:SWR

- [GHK07] Martin J. Gander, Laurence Halpern, and Michel Kern. A Schwarz waveform relaxation method for advection-diffusion-

reaction problems with discontinuous coefficients and non-matching grids. In Widlund and Keyes [WK07], pages 283–290. CODEN LNCSA6. ISBN 3-540-34468-3 (print), 3-540-34469-1 (e-book). ISSN 1439-7358 (print), 2197-7100 (electronic). LCCN QA402.2 .I55 2005. URL http://link.springer.com/content/pdf/10.1007/978-3-540-34469-8_33. Proceedings of the *Sixteenth International Conference on Domain Decomposition Methods*, New York City, January 11–15, 2005.

Gerritsma:2014:GBN

[GHK⁺14] Marc Gerritsma, René Hiemstra, Jasper Kreeft, Artur Palha, Pedro Rebelo, and Deepesh Toshniwal. The geometric basis of numerical methods. In Azaïez et al. [AHE13], pages 17–35. ISBN 3-319-01600-8 (hardcover). ISSN 1439-7358 (print), 2197-7100 (electronic). LCCN ????. URL http://link.springer.com/chapter/10.1007/978-3-319-01601-6_2/.

Glowinski:2007:FEM

[GHL⁺07] Roland Glowinski, Jiwen He, Alexei Lozinski, Marco Picasso, and Jacques Rappaz. Finite element methods with patches and applications. In Widlund and Keyes [WK07], pages 77–89. CODEN LNCSA6. ISBN 3-540-34468-3 (print), 3-540-34469-1 (e-book). ISSN 1439-7358 (print), 2197-7100 (electronic). LCCN QA402.2 .I55 2005. URL http://link.springer.com/content/pdf/10.1007/978-3-540-34469-8_7. Proceedings of the *Sixteenth International Conference on Domain Decomposition Methods*, New York City, January 11–15, 2005.

Graham:2012:NAM

[GHLS12] Ivan G. Graham, Thomas Y. Hou, Omar Lakkis, and Robert Scheichl, editors. *Numerical Analysis of Multiscale Problems*, volume 83 of *Lecture Notes in Computational Science and Engineering*. Springer-Verlag Inc., New York, NY, USA, 2012. CODEN LNCSA6. ISBN 3-642-22060-6 (print), 3-642-22061-4 (e-book). ISSN 1439-7358 (print), 2197-7100 (electronic). LCCN QA297 .N844 2012. URL <http://link.springer.com/book/10.1007/978-3-642-22061-6>; <http://www.springerlink.com/content/978-3-642-22061-6>. Ten invited expository articles from the 91st LMS Durham Symposium on *Numerical Analysis of Multiscale Problems*, Durham, UK, 5–15 July 2010.

Gander:2008:OSW

- [GHLSR08] Martin J. Gander, Laurence Halpern, Stéphane Labbé, and Kévin Santugini-Repiquet. An optimized Schwarz waveform relaxation algorithm for micro-magnetics. In Langer et al. [LDK⁺08], pages 203–210. CODEN LNCSA6. ISBN 3-540-75198-X (print), 3-540-75199-8 (e-book). ISSN 1439-7358 (print), 2197-7100 (electronic). LCCN QA402.2 .I58 2006. URL http://link.springer.com/content/pdf/10.1007/978-3-540-75199-1_22. 17th International Conference on Domain Decomposition Methods held at St. Wolfgang/Strobl, Austria, July 3–7, 2006.

Gander:2011:HCF

- [GHM11] Martin J. Gander, Laurence Halpern, and Veronique Martin. How close to the fully viscous solution can one get with inviscid approximations in subregions? In Huang et al. [HKWX11], pages 237–244. CODEN LNCSA6. ISBN 3-642-11303-6 (print), 3-642-11304-4 (e-book). ISSN 1439-7358 (print), 2197-7100 (electronic). LCCN QA402.2 .I58 2011. URL http://link.springer.com/content/pdf/10.1007/978-3-642-11304-8_26. Papers presented at the 19th International Conference on Domain Decomposition, DD19, hosted by the School of Mathematics and Computational Science of the Xiangtan University and the Hunan Key Laboratory for Computation and Simulation in Science and Engineering and held in Zhanjiajie, China, August 17–22, 2009.

Ganzenmuller:2015:IPM

- [GHM15] Georg C. Ganzenmüller, Stefan Hiermaier, and Michael May. Improvements to the prototype micro-brittle model of peridynamics. In Griebel and Schweitzer [GS14], pages 163–183. ISBN 3-319-06898-9. LCCN QA71 .G75 2015; QA377. URL http://link.springer.com/chapter/10.1007/978-3-319-06898-5_9/.

Gonzalez:2009:GSS

- [GHT09] M. Gonzalez, A. F. Hegarty, and S. R. Thomas. Glycolysis as a source of “external osmoles”:the Vasa Recta transient model. In Hegarty et al. [HKOS09], pages 153–161. CODEN LNCSA6. ISBN 3-642-00604-3 (print), 3-642-00605-1 (e-book). ISSN 1439-7358 (print), 2197-7100 (electronic). LCCN ????. URL http://link.springer.com/content/pdf/10.1007/978-3-642-00605-0_11.

Giraud:2008:MPP

- [GHW08] Luc Giraud, Azzam Haidar, and Layne T. Watson. Mixed-precision preconditioners in parallel domain decomposition solvers. In Langer et al. [LDK⁺08], pages 357–364. CODEN LNCSA6. ISBN 3-540-75198-X (print), 3-540-75199-8 (e-book). ISSN 1439-7358 (print), 2197-7100 (electronic). LCCN QA402.2 .I55 2006. URL http://link.springer.com/content/pdf/10.1007/978-3-540-75199-1_44. 17th International Conference on Domain Decomposition Methods held at St. Wolfgang/Strobl, Austria, July 3–7, 2006.

Girard:2008:AAM

- [GI08] Stéphane Girard and Serge Iovleff. Auto-associative models, nonlinear principal component analysis, manifolds and projection pursuit. In Gorban et al. [GKWZ08], pages 202–218. CODEN LNCSA6. ISBN 3-540-73749-9 (print), 3-540-73750-2 (e-book). ISSN 1439-7358 (print), 2197-7100 (electronic). LCCN QA278.5 .P75 2008. URL http://link.springer.com/content/pdf/10.1007/978-3-540-73750-6_8.

Giles:2008:CMD

- [Gil08] Mike B. Giles. Collected matrix derivative results for forward and reverse mode algorithmic differentiation. In Bischof et al. [BBH⁺08], pages 35–44. CODEN LNCSA6. ISBN 3-540-68935-4 (print), 3-540-68942-7 (e-book). ISSN 1439-7358 (print), 2197-7100 (electronic). LCCN QA304 .I58 2008. URL http://link.springer.com/content/pdf/10.1007/978-3-540-68942-3_4.

Gander:2009:ANM

- [GJ09] Martin J. Gander and Caroline Japhet. An algorithm for non-matching grid projections with linear complexity. In Bercovier et al. [BGKW09], pages 185–192. CODEN LNCSA6. ISBN 3-642-02676-1 (print), 3-642-02677-X (e-book). ISSN 1439-7358 (print), 2197-7100 (electronic). LCCN QA402.2 .I584 2009. URL http://link.springer.com/content/pdf/10.1007/978-3-642-02677-5_19.

Gjesdal:1998:ACD

- [Gje98] Thor Gjesdal. Accuracy and convergence of defect correction in an incompressible multigrid solver based on pressure correction smoothers. In Hackbusch and Wittum [HW98], pages

90–104. CODEN LNCSA6. ISBN 3-540-63133-X (softcover), 3-642-58734-8 (e-book). ISSN 1439-7358 (print), 2197-7100 (electronic). LCCN QA377 .E94 1996. URL http://link.springer.com/chapter/10.1007/978-3-642-58734-4_5/.

Gander:2005:NCG

- [GJMN05] Martin J. Gander, Caroline Japhet, Yvon Maday, and Frédéric Nataf. A new cement to glue nonconforming grids with Robin interface conditions: The finite element case. In Kornhuber et al. [KHP⁺05], pages 259–266. CODEN LNCSA6. ISBN 3-540-22523-4 (print), 3-540-26825-1 (e-book). ISSN 1439-7358 (print), 2197-7100 (electronic). LCCN QA402.2 .I55 2003. URL http://link.springer.com/content/pdf/10.1007/3-540-26825-1_24. Papers from the 15th International Conference on Domain Decomposition, Freie Universität Berlin (FU), Berlin, Germany, July 21–25, 2003.

Giering:2006:TLA

- [GK06] Ralf Giering and Thomas Kaminski. Tangent linear and adjoint versions of NASA/ GMAO's Fortran 90 global weather forecast model. In Bücker et al. [BCH⁺06], pages 275–284. CODEN LNCSA6. ISBN 3-540-28403-6 (print), 3-540-28438-9 (e-book). ISSN 1439-7358 (print), 2197-7100 (electronic). LCCN QA304 .I58 2006. URL http://link.springer.com/content/pdf/10.1007/3-540-28438-9_24. Proceedings of the Fourth International Conference on Automatic Differentiation, July 20–23, Chicago, Illinois.

Graser:2007:PUT

- [GK07] Carsten Gräser and Ralf Kornhuber. On preconditioned Uzawa-type iterations for a saddle point problem with inequality constraints. In Widlund and Keyes [WK07], pages 91–102. CODEN LNCSA6. ISBN 3-540-34468-3 (print), 3-540-34469-1 (e-book). ISSN 1439-7358 (print), 2197-7100 (electronic). LCCN QA402.2 .I55 2005. URL http://link.springer.com/content/pdf/10.1007/978-3-540-34469-8_8. Proceedings of the *Sixteenth International Conference on Domain Decomposition Methods*, New York City, January 11–15, 2005.

Giannakoglou:2009:ASO

- [GK09a] K. C. Giannakoglou and I. C. Karpolis. Aerodynamic shape optimization methods on multiprocessor platforms. In Tuncer

et al. [TGEM09], pages 49–58. CODEN LNCSA6. ISBN 3-540-92743-3 (print), 3-540-92744-1 (e-book). ISSN 1439-7358 (print), 2197-7100 (electronic). LCCN ???? URL http://link.springer.com/content/pdf/10.1007/978-3-540-92744-0_6. Parallel CFD 2007 was held in Antalya, Turkey, from May 21 to 24, 2007.

Gross:2009:RTR

- [GK09b] Christian Groß and Rolf Krause. A recursive trust-region method for non-convex constrained minimization. In Bercovier et al. [BGKW09], pages 137–144. CODEN LNCSA6. ISBN 3-642-02676-1 (print), 3-642-02677-X (e-book). ISSN 1439-7358 (print), 2197-7100 (electronic). LCCN QA402.2 .I584 2009. URL http://link.springer.com/content/pdf/10.1007/978-3-642-02677-5_13.

Gander:2011:OIC

- [GK11] Martin J. Gander and Felix Kwok. Optimal interface conditions for an arbitrary decomposition into subdomains. In Huang et al. [HKWX11], pages 101–108. CODEN LNCSA6. ISBN 3-642-11303-6 (print), 3-642-11304-4 (e-book). ISSN 1439-7358 (print), 2197-7100 (electronic). LCCN QA402.2 .I58 2011. URL http://link.springer.com/content/pdf/10.1007/978-3-642-11304-8_9. Papers presented at the 19th International Conference on Domain Decomposition, DD19, hosted by the School of Mathematics and Computational Science of the Xiangtan University and the Hunan Key Laboratory for Computation and Simulation in Science and Engineering and held in Zhanjiajie, China, August 17–22, 2009.

Garcke:2014:ASG

- [GK14] Jochen Garcke and Irene Klompaker. Adaptive sparse grids in reinforcement learning. In Dahlke et al. [DDG⁺14], pages 179–194. ISBN 3-319-08159-4. LCCN ???? URL http://link.springer.com/chapter/10.1007/978-3-319-08159-5_9/.

Gentile:2006:OIR

- [GKB06] N. A. Gentile, Malvin Kalos, and Thomas A. Brunner. Obtaining identical results on varying numbers of processors in domain decomposed particle Monte Carlo simulations. In Graziani [Gra06], pages 423–433. CODEN LNCSA6. ISBN 3-540-28122-3 (print), 3-540-28125-8 (e-book). ISSN 1439-7358

(print), 2197-7100 (electronic). LCCN MLCM 2006/40189 (Q); QC793.3.T7 C66 2006. URL http://link.springer.com/content/pdf/10.1007/3-540-28125-8_19.

Geller:2010:EMT

- [GKEK10] S. Geller, S. Kollmannsberger, M. El Bettah, and M. Krafczyk. An explicit model for three-dimensional fluid-structure interaction using LBM and p-FEM. In Bungartz et al. [BMS10], pages 285–325. CODEN LNCSA6. ISBN 3-642-14205-2 (print), 3-642-14206-0 (e-book). ISSN 1439-7358 (print), 2197-7100 (electronic). LCCN TA357.5.F58 F586b 2010. URL http://link.springer.com/content/pdf/10.1007/978-3-642-14206-2_11. Selected contributions from the *First International Workshop on Computational Engineering — special topic Fluid-Structure Interactions* held in Herrsching, Germany, in October 2009.

Gropp:2007:PIS

- [GKKS07] William D. Gropp, Dinesh K. Kaushik, David E. Keyes, and Barry F. Smith. Parallel implicit solution of diffusion-limited radiation transport. In Widlund and Keyes [WK07], pages 579–586. CODEN LNCSA6. ISBN 3-540-34468-3 (print), 3-540-34469-1 (e-book). ISSN 1439-7358 (print), 2197-7100 (electronic). LCCN QA402.2 .I55 2005. URL http://link.springer.com/content/pdf/10.1007/978-3-540-34469-8_72. Proceedings of the *Sixteenth International Conference on Domain Decomposition Methods*, New York City, January 11–15, 2005.

Gorobets:2011:ESC

- [GKS11] Andrey V. Gorobets, Tatiana K. Kozubskaya, and Sergey A. Soukov. On efficiency of supercomputers in CFD simulations. In Tromeur-Dervout et al. [TDBEE11], pages 347–354. CODEN LNCSA6. ISBN 3-642-14437-3 (print), 3-642-14438-1 (e-book). ISSN 1439-7358 (print), 2197-7100 (electronic). LCCN ????. URL http://link.springer.com/content/pdf/10.1007/978-3-642-14438-7_37. Proceedings of the twentieth meeting, Parallel CFD 2008, held May 19–22, 2008 in Lyon, France.

Gander:2014:COL

- [GKW14] Martin J. Gander, Felix Kwok, and Gerhard Wanner. Constrained optimization: From Lagrangian mechanics to optimal control and PDE constraints. In Hoppe [Hop14], pages

151–202. ISBN 3-319-08024-5 (paperback), 3-319-08025-3 (e-book). ISSN 1439-7358 (print), 2197-7100 (electronic). LCCN QA71-90; QA377. URL http://link.springer.com/chapter/10.1007/978-3-319-08025-3_5/.

Gorban:2008:PMD

- [GKWZ08] Alexander N. Gorban, Balázs Kégl, Donald C. Wunsch, and Andrei Y. Zinovyev, editors. *Principal Manifolds for Data Visualization and Dimension Reduction*, volume 58 of *Lecture Notes in Computational Science and Engineering*. Springer-Verlag Inc., New York, NY, USA, 2008. CODEN LNCSA6. ISBN 3-540-73749-9 (print), 3-540-73750-2 (e-book). ISSN 1439-7358 (print), 2197-7100 (electronic). LCCN QA278.5 .P75 2008. URL <http://link.springer.com/book/10.1007/978-3-540-73750-6>; <http://www.springerlink.com/content/978-3-540-73750-6>.

Gugercin:2005:STM

- [GL05] Serkan Gugercin and Jing-Rebecca Li. Smith-type methods for balanced truncation of large sparse systems. In Benner et al. [BMS05c], pages 49–82. CODEN LNCSA6. ISBN 3-540-24545-6 (print), 3-540-27909-1 (e-book). ISSN 1439-7358 (print), 2197-7100 (electronic). LCCN TA347.C68 D56 2005. URL http://link.springer.com/content/pdf/10.1007/3-540-27909-1_2.

Gomes:2006:ESF

- [GL06] Jorge Pereira Gomes and Hermann Lienhart. Experimental study on a fluid-structure interaction reference test case. In Bungartz and Schäfer [BS06], pages 356–370. CODEN LNCSA6. ISBN 3-540-34595-7 (print), 3-540-34596-5 (e-book). ISSN 1439-7358 (print), 2197-7100 (electronic). LCCN TA357.5.F58 F586 200. URL http://link.springer.com/content/pdf/10.1007/3-540-34596-5_14. Proceedings of a workshop on fluid-structure interactions held in Hohenwart, Germany, in October 2005.

Garbey:2007:FTD

- [GL07a] Marc Garbey and Hatem Ltaief. Fault tolerant domain decomposition for parabolic problems. In Widlund and Keyes [WK07], pages 565–572. CODEN LNCSA6. ISBN 3-540-34468-3 (print), 3-540-34469-1 (e-book). ISSN 1439-7358 (print), 2197-7100 (electronic). LCCN QA402.2 .I55

2005. URL http://link.springer.com/content/pdf/10.1007/978-3-540-34469-8_70. Proceedings of the *Sixteenth International Conference on Domain Decomposition Methods*, New York City, January 11–15, 2005.

Graham:2007:DDH

- [GL07b] Ivan G. Graham and Patrick O. Lechner. Domain decomposition for heterogeneous media. In Widlund and Keyes [WK07], pages 573–578. CODEN LNCSA6. ISBN 3-540-34468-3 (print), 3-540-34469-1 (e-book). ISSN 1439-7358 (print), 2197-7100 (electronic). LCCN QA402.2 .I55 2005. URL http://link.springer.com/content/pdf/10.1007/978-3-540-34469-8_71. Proceedings of the *Sixteenth International Conference on Domain Decomposition Methods*, New York City, January 11–15, 2005.

Gomes:2010:EBS

- [GL10] J. Pereira Gomes and H. Lienhart. Experimental benchmark: Self-excited fluid-structure interaction test cases. In Bungartz et al. [BMS10], pages 383–411. CODEN LNCSA6. ISBN 3-642-14205-2 (print), 3-642-14206-0 (e-book). ISSN 1439-7358 (print), 2197-7100 (electronic). LCCN TA357.5.F58 F586b 2010. URL http://link.springer.com/content/pdf/10.1007/978-3-642-14206-2_14. Selected contributions from the *First International Workshop on Computational Engineering — special topic Fluid-Structure Interactions* held in Herrsching, Germany, in October 2009.

Glicksman:2003:MKP

- [GLK03] M. E. Glicksman, A. Lupulescu, and M. B. Koss. Melting kinetics of prolate spheroidal crystals. In Emmerich et al. [ENS03], page ?? CODEN LNCSA6. ISBN 3-540-40367-1. ISSN 1439-7358 (print), 2197-7100 (electronic). LCCN QC173.4.I57 I57 2003. URL <http://www.loc.gov/catdir/enhancements/fy0818/2003060231-d.html>. Papers from the workshop on “Computational Physics of Transport and Interfacial Dynamics”, Dresden, February 25–March 8, 2002.

Gracia:2009:SSP

- [GLMTO09] J. L. Gracia, F. J. Lisbona, M. Madaune-Tort, and E. O’Riordan. A system of singularly perturbed semilinear equations. In Hegarty et al. [HKOS09], pages 163–172. CO-

DEN LNCSA6. ISBN 3-642-00604-3 (print), 3-642-00605-1 (e-book). ISSN 1439-7358 (print), 2197-7100 (electronic). LCCN ????. URL http://link.springer.com/content/pdf/10.1007/978-3-642-00605-0_12.

Gao:2007:PEM

- [GLYB07] Weiguo Gao, Xiaoye S. Li, Chao Yang, and Zhaojun Bai. Performance evaluation of a multilevel sub-structuring method for sparse eigenvalue problems. In Widlund and Keyes [WK07], pages 231–238. CODEN LNCSA6. ISBN 3-540-34468-3 (print), 3-540-34469-1 (e-book). ISSN 1439-7358 (print), 2197-7100 (electronic). LCCN QA402.2 .I55 2005. URL http://link.springer.com/content/pdf/10.1007/978-3-540-34469-8_25. Proceedings of the *Sixteenth International Conference on Domain Decomposition Methods*, New York City, January 11–15, 2005.

Gremaud:2000:SGF

- [GM00] Pierre A. Gremaud and John V. Matthews. Simulation of gravity flow of granular materials in silos. In Cockburn et al. [CKS00b], pages 125–134. CODEN LNCSA6. ISBN 3-540-66787-3, 3-642-64098-2 (print), 3-642-59721-1 (e-book). ISSN 1439-7358 (print), 2197-7100 (electronic). LCCN TA347.F5 D57 2000. URL http://link.springer.com/chapter/10.1007/978-3-642-59721-3_8/. Papers from the first international symposium on DGM Newport, Rhode Island, USA, May 24–26, 1999.

Grimich:2014:FVF

- [GMCL14] Karim Grimich, Bertrand Michel, Paola Cinnella, and Alain Lerat. Finite volume formulation of a third-order residual-based compact scheme for unsteady flow computations. In Abgrall et al. [ABC⁺14], pages 37–58. ISBN 3-319-05454-6 (paperback), 3-319-05455-4 (e-book). ISSN 1439-7358 (print), 2197-7100 (electronic). LCCN QA374 .A384 2014. URL http://link.springer.com/chapter/10.1007/978-3-319-05455-1_3/.

Gazaix:2011:LSM

- [GMM11] M. Gazaix, S. Mazet, and M. Montagnac. Large scale massively parallel computations with the block-structured elsA CFD software. In Tromeur-Dervout et al. [TDBEE11], pages 111–117. CODEN LNCSA6. ISBN 3-642-14437-3 (print),

3-642-14438-1 (e-book). ISSN 1439-7358 (print), 2197-7100 (electronic). LCCN ????. URL http://link.springer.com/content/pdf/10.1007/978-3-642-14438-7_11. Proceedings of the twentieth meeting, Parallel CFD 2008, held May 19–22, 2008 in Lyon, France.

Garbey:2011:FFA

- [GMS11] Marc Garbey, Cendrine Mony, and Malek Smaoui. Fluid flow-agent based hybrid model for the simulation of virtual prairies. In Tromeur-Dervout et al. [TDBEE11], pages 369–376. CODEN LNCSA6. ISBN 3-642-14437-3 (print), 3-642-14438-1 (e-book). ISSN 1439-7358 (print), 2197-7100 (electronic). LCCN ????. URL http://link.springer.com/content/pdf/10.1007/978-3-642-14438-7_39. Proceedings of the twentieth meeting, Parallel CFD 2008, held May 19–22, 2008 in Lyon, France.

Goncalves:2008:RPH

- [GMSS08] Etereldes Gonçalves, Tarek P. Mathew, Markus Sarkis, and Christian E. Schaerer. A robust preconditioner for the Hessian system in elliptic optimal control problems. In Langer et al. [LDK⁺08], pages 527–534. CODEN LNCSA6. ISBN 3-540-75198-X (print), 3-540-75199-8 (e-book). ISSN 1439-7358 (print), 2197-7100 (electronic). LCCN QA402.2 .I55 2006. URL http://link.springer.com/content/pdf/10.1007/978-3-540-75199-1_66. 17th International Conference on Domain Decomposition Methods held at St. Wolfgang/Strobl, Austria, July 3–7, 2006.

Gander:2007:MOS

- [GN07] Martin Gander and Frédéric Nataf. MINISYMPOSIUM 2: Optimized Schwarz methods. In Widlund and Keyes [WK07], page 163. CODEN LNCSA6. ISBN 3-540-34468-3 (print), 3-540-34469-1 (e-book). ISSN 1439-7358 (print), 2197-7100 (electronic). LCCN QA402.2 .I55 2005. URL http://link.springer.com/content/pdf/10.1007/978-3-540-34469-8_15. Proceedings of the *Sixteenth International Conference on Domain Decomposition Methods*, New York City, January 11–15, 2005.

Garcke:2003:PFM

- [GNS03] H. Garcke, B. Nestler, and B. Stinner. A phase-field model for the solidification process in multicomponent alloys. In

Emmerich et al. [ENS03], page ?? CODEN LNCSA6. ISBN 3-540-40367-1. ISSN 1439-7358 (print), 2197-7100 (electronic). LCCN QC173.4.I57 I57 2003. URL <http://www.loc.gov/catdir/enhancements/fy0818/2003060231-d.html>. Papers from the workshop on “Computational Physics of Transport and Interfacial Dynamics”, Dresden, February 25–March 8, 2002.

Griebel:2005:PPU

- [GO05] Michael Griebel and Peter Oswald. A particle-partition of unity method Part VI: a p-robust multilevel solver. In Griebel and Schweitzer [GS05], pages 71–92. CODEN LNCSA6. ISBN 3-540-23026-2 (print), 3-540-27099-X (e-book). ISSN 1439-7358 (print), 2197-7100 (electronic). LCCN QA377 .M452 2005. URL http://link.springer.com/content/pdf/10.1007/3-540-27099-X_5. Proceedings of the Second International Workshop on Meshfree Methods for Partial Differential Equations, Institut für Numerische Simulation Rheinische Friedrich–Wilhelms Universität Bonn, September 15–17, 2003.

Gracia:2011:SPC

- [GO11] J. L. Gracia and E. O’Riordan. A singularly perturbed convection diffusion parabolic problem with an interior layer. In Clavero et al. [CGL11], pages 139–146. CODEN LNCSA6. ISBN 3-642-19664-0 (print), 3-642-19665-9 (e-book). ISSN 1439-7358 (print), 2197-7100 (electronic). LCCN ????. URL http://link.springer.com/content/pdf/10.1007/978-3-642-19665-2_15. Selected papers from the proceedings of BAIL 2010 (Boundary and Interior Layers — Computational and Asymptotic Methods), held from 5 to 9 July 2010 at the University of Zaragoza, Spain.

Griebel:2014:DAS

- [GO14] Michael Griebel and Jens Oettershagen. Dimension-adaptive sparse grid quadrature for integrals with boundary singularities. In Garcke and Pflüger [GP14], pages 109–136. ISBN 3-319-04536-9 (paperback), 3-319-04537-7 (e-book). LCCN QA188 .S63 2013. URL http://link.springer.com/chapter/10.1007/978-3-319-04537-5_5/.

Gorban:2011:SSD

- [Gor11] Alexander N. Gorban. Self-simplification in Darwin’s systems. In Gorban and Roose [GR11b], pages 311–344. CO-

DEN LNCSA6. ISBN 3-642-14940-5 (print), 3-642-14941-3 (e-book). ISSN 1439-7358 (print), 2197-7100 (electronic). LCCN QA401 .C67 2011. URL http://link.springer.com/content/pdf/10.1007/978-3-642-14941-2_17. Extended versions of selected talks given at the international research workshop: *Coping with Complexity: Model Reduction and Data Analysis*, Ambleside, Lake District, UK, August 31–September 4, 2009 in conjunction with the A4A6, the 6th *Conference on Algorithms for Approximation*.

Gottlieb:2015:SSP

- [Got15] Sigal Gottlieb. Strong stability preserving time discretizations: a review. In Kirby et al. [KBH15], pages 17–30. ISBN 3-319-19799-1, 3-319-19800-9 (e-book). LCCN QA377. URL http://link.springer.com/chapter/10.1007/978-3-319-19800-2_2/.

Govorukhin:2013:MMA

- [Gov13] Vasily N. Govorukhin. A meshfree method for the analysis of planar flows of inviscid fluids. In Griebel and Schweitzer [GS13b], pages 171–180. CODEN LNCSA6. ISBN 3-642-32978-0 (print), 3-642-32979-9 (e-book). ISSN 1439-7358 (print), 2197-7100 (electronic). LCCN QA297 .I58 2011. URL http://link.springer.com/content/pdf/10.1007/978-3-642-32979-1_11. Proceedings of the Sixth International Workshop on Meshfree Methods for Partial Differential Equations, October 4–6, 2011, Bonn, Germany.

Gouache:2000:JCS

- [GP00a] S. Gouache and T. Priol. JACO3: a CORBA software infrastructure for distributed numerical simulation. In Engquist et al. [EJHS00], pages 33–45. CODEN LNCSA6. ISBN 3-540-67264-8 (print), 3-642-57313-4 (e-book). ISSN 1439-7358 (print), 2197-7100 (electronic). LCCN QA76.9.C65 S535 2000. URL <http://link.springer.com/book/10.1007/978-3-642-57313-2>; <http://www.pdc.kth.se/conference/2000/>; <http://www.springerlink.com/content/978-3-642-57313-2>.

Gouache:2000:CSI

- [GP00b] Stéphane Gouache and Thierry Priol. A CORBA software infrastructure for distributed numerical simulation. In Engquist et al. [EJHS00], pages 33–45. CODEN LNCSA6. ISBN

3-540-67264-8 (print), 3-642-57313-4 (e-book). ISSN 1439-7358 (print), 2197-7100 (electronic). LCCN QA76.9.C65 S535 2000. URL http://link.springer.com/chapter/10.1007/978-3-642-57313-2_3/.

Goldfeld:2002:BNN

- [GP02] Paulo Goldfeld and Luca F. Pavarino. Balancing Neumann–Neumann methods for mixed approximations of linear elasticity. In Pavarino and Toselli [PT02], pages 53–76. CODEN LNCSA6. ISBN 3-540-43413-5 (print), 3-642-56118-7 (e-book). ISSN 1439-7358 (print), 2197-7100 (electronic). LCCN QA402.2 .R43 2002. URL http://link.springer.com/content/pdf/10.1007/978-3-642-56118-4_4. Papers presented at the Workshop on Domain Decomposition held at ETH, Zurich, June 7–8, 2001.

Giles:2003:AEC

- [GP03] Michael B. Giles and Niles A. Pierce. Adjoint error correction for integral outputs. In Barth and Deconinck [BD03], page ?? CODEN LNCSA6. ISBN 3-540-43758-4. ISSN 1439-7358 (print), 2197-7100 (electronic). LCCN TA357 .E78 2003. URL <http://www.loc.gov/catdir/enhancements/fy0815/2002030472-d.html>; <http://www.loc.gov/catdir/toc/fy034/2002030472.html>.

Garbey:2008:MMS

- [GP08a] Marc Garbey and Christophe Picard. A multilevel method for solution verification. In Langer et al. [LDK⁺08], pages 517–525. CODEN LNCSA6. ISBN 3-540-75198-X (print), 3-540-75199-8 (e-book). ISSN 1439-7358 (print), 2197-7100 (electronic). LCCN QA402.2 .I55 2006. URL http://link.springer.com/content/pdf/10.1007/978-3-540-75199-1_65. 17th International Conference on Domain Decomposition Methods held at St. Wolfgang/Strobl, Austria, July 3–7, 2006.

Gebremedhin:2008:ESJ

- [GP08b] Assefaw H. Gebremedhin and Alex Pothén. Exploiting sparsity in Jacobian computation via coloring and automatic differentiation: a case study in a simulated moving bed process. In Bischof et al. [BBH⁺08], pages 327–338. CODEN LNCSA6. ISBN 3-540-68935-4 (print), 3-540-68942-7 (e-book). ISSN 1439-7358 (print), 2197-7100 (electronic). LCCN QA304 .I58

2008. URL http://link.springer.com/content/pdf/10.1007/978-3-540-68942-3_29.

Guermond:2011:EVM

- [GP11] J. L. Guermond and R. Pasquetti. Entropy viscosity method for high-order approximations of conservation laws. In Hesthaven and Rønquist [HR11], pages 411–418. CODEN LNCSA6. ISBN 3-642-15336-4 (print), 3-642-15337-2 (e-book). ISSN 1439-7358 (print), 2197-7100 (electronic). LCCN ????. URL http://link.springer.com/content/pdf/10.1007/978-3-642-15337-2_39.

Garcke:2014:SGA

- [GP14] Jochen Garcke and Dirk Pflüger, editors. *Sparse grids and applications: Munich 2012*, volume 97 of *Lecture Notes in Computational Science and Engineering*. Springer-Verlag Inc., New York, NY, USA, 2014. ISBN 3-319-04536-9 (paperback), 3-319-04537-7 (e-book). LCCN QA188 .S63 2013.

Grabner:2008:ADG

- [GPG08] Markus Grabner, Thomas Pock, and Tobias Gross. Automatic differentiation for GPU-accelerated 2D/ 3D registration. In Bischof et al. [BBH⁺08], pages 259–269. CODEN LNCSA6. ISBN 3-540-68935-4 (print), 3-540-68942-7 (e-book). ISSN 1439-7358 (print), 2197-7100 (electronic). LCCN QA304 .I58 2008. URL http://link.springer.com/content/pdf/10.1007/978-3-540-68942-3_23.

Gaudio:2011:SED

- [GQ11] Loredana Gaudio and Alfio Quarteroni. Spectral element discretization of optimal control problems. In Hesthaven and Rønquist [HR11], pages 393–401. CODEN LNCSA6. ISBN 3-642-15336-4 (print), 3-642-15337-2 (e-book). ISSN 1439-7358 (print), 2197-7100 (electronic). LCCN ????. URL http://link.springer.com/content/pdf/10.1007/978-3-642-15337-2_37.

Gander:2005:NAP

- [GR05] Martin J. Gander and Christian Rohde. Nonlinear advection problems and overlapping Schwarz waveform relaxation. In Kornhuber et al. [KHP⁺05], pages 251–258. CODEN LNCSA6. ISBN 3-540-22523-4 (print), 3-540-26825-1 (e-book). ISSN 1439-7358 (print), 2197-7100 (electronic). LCCN

QA402.2 .I55 2003. URL http://link.springer.com/content/pdf/10.1007/3-540-26825-1_23. Papers from the 15th International Conference on Domain Decomposition, Freie Universität Berlin (FU), Berlin, Germany, July 21–25, 2003.

Garcia:2011:NAC

- [GR11a] M. Benítez García and T. Chacón Rebollo. Numerical approximation of convection-diffusion problems through the PSI method and characteristics method. In Clavero et al. [CGL11], pages 21–28. CODEN LNCSA6. ISBN 3-642-19664-0 (print), 3-642-19665-9 (e-book). ISSN 1439-7358 (print), 2197-7100 (electronic). LCCN ???? URL http://link.springer.com/content/pdf/10.1007/978-3-642-19665-2_3. Selected papers from the proceedings of BAIL 2010 (Boundary and Interior Layers — Computational and Asymptotic Methods), held from 5 to 9 July 2010 at the University of Zaragoza, Spain.

Gorban:2011:CCM

- [GR11b] Alexander N. Gorban and Dirk Roose, editors. *Coping with Complexity: Model Reduction and Data Analysis*, volume 75 of *Lecture Notes in Computational Science and Engineering*. Springer-Verlag Inc., New York, NY, USA, 2011. CODEN LNCSA6. ISBN 3-642-14940-5 (print), 3-642-14941-3 (e-book). ISSN 1439-7358 (print), 2197-7100 (electronic). LCCN QA401 .C67 2011. URL <http://link.springer.com/book/10.1007/978-3-642-14941-2>; <http://www.springerlink.com/content/978-3-642-14941-2>. 2. Extended versions of selected talks given at the international research workshop: *Coping with Complexity: Model Reduction and Data Analysis*, Ambleside, Lake District, UK, August 31–September 4, 2009 in conjunction with the A4A6, the 6th Conference on Algorithms for Approximation.

Graziani:2006:CMT

- [Gra06] Frank Graziani, editor. *Computational Methods in Transport: Granlibakken 2004*, volume 48 of *Lecture Notes in Computational Science and Engineering*. Springer-Verlag Inc., New York, NY, USA, 2006. CODEN LNCSA6. ISBN 3-540-28122-3 (print), 3-540-28125-8 (e-book). ISSN 1439-7358 (print), 2197-7100 (electronic). LCCN MLCM 2006/40189 (Q); QC793.3.T7 C66 2006. URL <http://link.springer.com/book/10.1007/3-540-28125-8>.

Graziani:2008:PSR

- [Gra08a] F. Graziani. The prompt spectrum of a radiating sphere: Benchmark solutions for diffusion and transport. In Graziani [Gra08b], pages 151–167. CODEN LNCSA6. ISBN 3-540-77361-4 (print), 3-540-77362-2 (e-book). ISSN 1439-7358 (print), 2197-7100 (electronic). LCCN ???? URL http://link.springer.com/content/pdf/10.1007/978-3-540-77362-7_6. Proceedings of the 2006 Computational Methods in Transport (CMTW) conference.

Graziani:2008:CMT

- [Gra08b] Frank Graziani, editor. *Computational Methods in Transport: Verification and Validation*, volume 62 of *Lecture Notes in Computational Science and Engineering*. Springer-Verlag Inc., New York, NY, USA, 2008. CODEN LNCSA6. ISBN 3-540-77361-4 (print), 3-540-77362-2 (e-book). ISSN 1439-7358 (print), 2197-7100 (electronic). LCCN ???? URL <http://link.springer.com/book/10.1007/978-3-540-77362-7>; <http://www.springerlink.com/content/978-3-540-77362-7>. Proceedings of the 2006 Computational Methods in Transport (CMTW) conference.

Grabowski:2014:RWP

- [Gra14] Paul E. Grabowski. A review of wave packet molecular dynamics. In Graziani et al. [GDRT14b], pages 265–282. ISBN 3-319-04912-7. ISSN 1439-7358 (print), 2197-7100 (electronic). LCCN QA71-90. URL http://link.springer.com/chapter/10.1007/978-3-319-04912-0_10/.

Greenstadt:2000:AHC

- [Gre00] John Greenstadt. An abridged history of Cell discretization. In Cockburn et al. [CKS00b], pages 337–342. CODEN LNCSA6. ISBN 3-540-66787-3, 3-642-64098-2 (print), 3-642-59721-1 (e-book). ISSN 1439-7358 (print), 2197-7100 (electronic). LCCN TA347.F5 D57 2000. URL http://link.springer.com/chapter/10.1007/978-3-642-59721-3_30/. Papers from the first international symposium on DGM Newport, Rhode Island, USA, May 24–26, 1999.

Gunther:2001:COS

- [GRF01] M. Günther, P. Rentrop, and U. Feldmann. CHORAL — a one step method as numerical low pass filter in electrical network

analysis. In van Rienen et al. [vRGH01], pages 199–215. CODEN LNCSA6. ISBN 3-540-42173-4 (softcover), 3-642-56470-4 (e-book). ISSN 1439-7358 (print), 2197-7100 (electronic). LCCN TK5 .S35 2001. URL http://link.springer.com/content/pdf/10.1007/978-3-642-56470-3_20. Selected contributions presented at the 3rd International Workshop on Scientific Computing in Electrical Engineering.

Grimvall:2009:AM

- [Gri09a] Göran Grimvall. Accuracy of models. In Yip and Diaz de la Rubia [YD09], pages 41–57. CODEN LNCSA6. ISBN 1-4020-9740-9 (print), 1-4020-9741-7 (e-book). ISSN 1439-7358 (print), 2197-7100 (electronic). LCCN ????. URL http://link.springer.com/content/pdf/10.1007/978-1-4020-9741-6_5. Previously published in *Scientific Modeling and Simulations*, Volume 15, Issues 1–3, 2008.

Grimvall:2009:CQD

- [Gri09b] Göran Grimvall. Characteristic quantities and dimensional analysis. In Yip and Diaz de la Rubia [YD09], pages 21–39. CODEN LNCSA6. ISBN 1-4020-9740-9 (print), 1-4020-9741-7 (e-book). ISSN 1439-7358 (print), 2197-7100 (electronic). LCCN ????. URL http://link.springer.com/content/pdf/10.1007/978-1-4020-9741-6_4. Previously published in *Scientific Modeling and Simulations*, Volume 15, Issues 1–3, 2008.

Grimvall:2009:EPM

- [Gri09c] Göran Grimvall. Extrapolative procedures in modelling and simulations: the role of instabilities. In Yip and Diaz de la Rubia [YD09], pages 5–20. CODEN LNCSA6. ISBN 1-4020-9740-9 (print), 1-4020-9741-7 (e-book). ISSN 1439-7358 (print), 2197-7100 (electronic). LCCN ????. URL http://link.springer.com/content/pdf/10.1007/978-1-4020-9741-6_3. Previously published in *Scientific Modeling and Simulations*, Volume 15, Issues 1–3, 2008.

Grote:2008:LNN

- [Gro08] M. J. Grote. Local and nonlocal nonreflecting boundary conditions for electromagnetic scattering. In Ammari [Amm08], pages 105–127. CODEN LNCSA6. ISBN 3-540-73777-4 (print), 3-540-73778-2 (e-book). ISSN 1439-7358 (print), 2197-7100 (electronic). LCCN QC760.4.M37 M63

2008. URL http://link.springer.com/content/pdf/10.1007/978-3-540-73778-0_4.

Gross:2011:PXT

- [Gro11] Sven Gross. Pressure XFEM for two-phase incompressible flows with application to 3D droplet problems. In Griebel and Schweitzer [GS11c], pages 81–87. CODEN LNCSA6. ISBN 3-642-16228-2 (print), 3-642-16229-0 (e-book). ISSN 1439-7358 (print), 2197-7100 (electronic). LCCN ????. URL http://link.springer.com/content/pdf/10.1007/978-3-642-16229-9_5. Proceedings of the Fifth International Workshop on Meshfree Methods for Partial Differential Equations held from August 17 to August 19, 2009 in Bonn, Germany.

Glock:2003:CCE

- [GRvR03] H.-W. Glock, K. Rothemund, and U. van Rienen. Coupled calculation of eigenmodes. In Carstensen et al. [CFH⁺03], pages 85–101. CODEN LNCSA6. ISBN 3-540-44392-4 (print), 3-642-55745-7 (e-book). ISSN 1439-7358 (print), 2197-7100 (electronic). LCCN QC665.E4 G35 2001. URL http://link.springer.com/content/pdf/10.1007/978-3-642-55745-3_7.

Grigat:1999:FPO

- [GS99] E. Grigat and G. Sachs. Flight path optimization with a new homotopy method for reducing safety hazards in microbursts. In Bungartz et al. [BDZ99], pages 189–197. CODEN LNCSA6. ISBN 3-540-65730-4 (print), 3-642-60155-3 (e-book). ISSN 1439-7358 (print), 2197-7100 (electronic). LCCN Q183.9.I58 1998. URL http://link.springer.com/chapter/10.1007/978-3-642-60155-2_16/.

Gan:2002:MMM

- [GS02a] Hin Hark Gan and Tamar Schlick. Methods for macromolecular modeling (M^3): Assessment of progress and future perspectives. In Schlick and Gan [SG02], pages 3–27. CODEN LNCSA6. ISBN 3-540-43756-8 (print), 3-642-56080-6 (e-book). ISSN 1439-7358 (print), 2197-7100 (electronic). LCCN QP517.M3 A384 2000. URL http://link.springer.com/content/pdf/10.1007/978-3-642-56080-4_1.

Griebel:2002:MMP

- [GS02b] Michael Griebel and Marc Alexander Schweitzer, editors. *Meshfree Methods for Partial Differential Equations*, volume 26 of *Lecture Notes in Computational Science and Engineering*. Springer-Verlag Inc., New York, NY, USA, 2002. CODEN LNCSA6. ISBN 3-540-43891-2 (print), 3-642-56103-9 (e-book). ISSN 1439-7358 (print), 2197-7100 (electronic). LCCN QA377 .M45 2003. URL <http://link.springer.com/book/10.1007/978-3-642-56103-0>; <http://www.springerlink.com/content/978-3-642-56103-0>. Proceedings of a workshop on Meshfree Methods for Partial Differential Equations, Institut für Angewandte Mathematik, Rheinische Friedrich-Wilhelms Universität Bonn, September 11–14, 2001.

Griebel:2002:PPU

- [GS02c] Michael Griebel and Marc Alexander Schweitzer. A particle-partition of unity method — Part IV: Parallelization. In *Meshfree Methods for Partial Differential Equations* [GS02b], pages 161–192. CODEN LNCSA6. ISBN 3-540-43891-2 (print), 3-642-56103-9 (e-book). ISSN 1439-7358 (print), 2197-7100 (electronic). LCCN QA377 .M45 2003. URL http://link.springer.com/content/pdf/10.1007/978-3-642-56103-0_12. Proceedings of a workshop on Meshfree Methods for Partial Differential Equations, Institut für Angewandte Mathematik, Rheinische Friedrich-Wilhelms Universität Bonn, September 11–14, 2001.

Griebel:2005:MMP

- [GS05] Michael Griebel and Marc A. Schweitzer, editors. *Mesh-free Methods for Partial Differential Equations II*, volume 43 of *Lecture Notes in Computational Science and Engineering*. Springer-Verlag Inc., New York, NY, USA, 2005. CODEN LNCSA6. ISBN 3-540-23026-2 (print), 3-540-27099-X (e-book). ISSN 1439-7358 (print), 2197-7100 (electronic). LCCN QA377 .M452 2005. URL <http://link.springer.com/book/10.1007/b138605>. Proceedings of the Second International Workshop on Meshfree Methods for Partial Differential Equations, Institut für Numerische Simulation Rheinische Friedrich-Wilhelms Universität Bonn, September 15–17, 2003.

Galvis:2007:BDD

- [GS07a] Juan Galvis and Marcus Sarkis. Balancing domain decomposition methods for mortar coupling Stokes–Darcy systems. In Widlund and Keyes [WK07], pages 373–380. CODEN LNCSA6. ISBN 3-540-34468-3 (print), 3-540-34469-1 (e-book). ISSN 1439-7358 (print), 2197-7100 (electronic). LCCN QA402.2 .I55 2005. URL http://link.springer.com/content/pdf/10.1007/978-3-540-34469-8_46. Proceedings of the *Sixteenth International Conference on Domain Decomposition Methods*, New York City, January 11–15, 2005.

Griebel:2007:MMP

- [GS07b] Michael Griebel and Marc Alexander Schweitzer, editors. *Meshfree Methods for Partial Differential Equations III*, volume 57 of *Lecture Notes in Computational Science and Engineering*. Springer-Verlag Inc., New York, NY, USA, 2007. CODEN LNCSA6. ISBN 3-540-46214-7 (print), 3-540-46222-8 (e-book). ISSN 1439-7358 (print), 2197-7100 (electronic). LCCN QA377 .M45 2005. URL <http://link.springer.com/book/10.1007/978-3-540-46222-4>; <http://www.springerlink.com/content/978-3-540-46222-4>.
4. Third international workshop on Meshfree Methods for Partial Differential Equations held from September 12 to September 15, 2005 in Bonn, Germany.

Griebel:2007:PPU

- [GS07c] Michael Griebel and Marc Alexander Schweitzer. A particle-partition of unity method Part VII: Adaptivity. In *Meshfree Methods for Partial Differential Equations III* [GS07b], pages 121–147. CODEN LNCSA6. ISBN 3-540-46214-7 (print), 3-540-46222-8 (e-book). ISSN 1439-7358 (print), 2197-7100 (electronic). LCCN QA377 .M45 2005. URL http://link.springer.com/content/pdf/10.1007/978-3-540-46222-4_8. Third international workshop on Meshfree Methods for Partial Differential Equations held from September 12 to September 15, 2005 in Bonn, Germany.

Gorban:2008:BCM

- [GS08a] Alexander N. Gorban and Neil R. Sumner. Beyond the concept of manifolds: Principal trees, metro maps, and elastic cubic complexes. In Gorban et al. [GKWZ08], pages 219–237. CODEN LNCSA6. ISBN 3-540-73749-9 (print), 3-540-73750-2 (e-book). ISSN 1439-7358 (print), 2197-7100 (electronic).

LCCN QA278.5 .P75 2008. URL http://link.springer.com/content/pdf/10.1007/978-3-540-73750-6_9.

Graham:2008:CEC

- [GS08b] Ivan G. Graham and Rob Scheichl. Coefficient-explicit condition number bounds for overlapping additive Schwarz. In Langer et al. [LDK⁺08], pages 365–372. CODEN LNCSA6. ISBN 3-540-75198-X (print), 3-540-75199-8 (e-book). ISSN 1439-7358 (print), 2197-7100 (electronic). LCCN QA402.2 .I55 2006. URL http://link.springer.com/content/pdf/10.1007/978-3-540-75199-1_45. 17th International Conference on Domain Decomposition Methods held at St. Wolfgang/Strobl, Austria, July 3–7, 2006.

Graham:2008:MRM

- [GS08c] Ivan G. Graham and Rob Scheichl. MINISYMPOSIUM 8: Robust methods for multiscale PDE problems. In Langer et al. [LDK⁺08], page 355. CODEN LNCSA6. ISBN 3-540-75198-X (print), 3-540-75199-8 (e-book). ISSN 1439-7358 (print), 2197-7100 (electronic). LCCN QA402.2 .I55 2006. URL http://link.springer.com/content/pdf/10.1007/978-3-540-75199-1_43. 17th International Conference on Domain Decomposition Methods held at St. Wolfgang/Strobl, Austria, July 3–7, 2006.

Griebel:2008:MMP

- [GS08d] Michael Griebel and Marc Alexander Schweitzer, editors. *Meshfree Methods for Partial Differential Equations IV*, volume 65 of *Lecture Notes in Computational Science and Engineering*. Springer-Verlag Inc., New York, NY, USA, 2008. CODEN LNCSA6. ISBN 3-540-79993-1 (print), 3-540-79994-X (e-book). ISSN 1439-7358 (print), 2197-7100 (electronic). LCCN ???? URL <http://link.springer.com/book/10.1007/978-3-540-79994-8>; <http://www.springerlink.com/content/978-3-540-79994-8>. Fourth International Workshop on Meshfree Methods for Partial Differential Equations held from September 17 to September 20, 2007 in Bonn, Germany.

Galvis:2011:FDS

- [GS11a] Juan Galvis and Marcus Sarkis. FETI-DP for stokes-mortardarcy systems. In Huang et al. [HKWX11], pages 221–228.

CODEN LNCSA6. ISBN 3-642-11303-6 (print), 3-642-11304-4 (e-book). ISSN 1439-7358 (print), 2197-7100 (electronic). LCCN QA402.2 .I58 2011. URL http://link.springer.com/content/pdf/10.1007/978-3-642-11304-8_24. Papers presented at the 19th International Conference on Domain Decomposition, DD19, hosted by the School of Mathematics and Computational Science of the Xiangtan University and the Hunan Key Laboratory for Computation and Simulation in Science and Engineering and held in Zhanjiajie, China, August 17–22, 2009.

Gander:2011:PCP

[GS11b]

Martin J. Gander and Achim Schädle. The pole condition: a Padé approximation of the Dirichlet to Neumann operator. In Huang et al. [HKWX11], pages 125–132. CODEN LNCSA6. ISBN 3-642-11303-6 (print), 3-642-11304-4 (e-book). ISSN 1439-7358 (print), 2197-7100 (electronic). LCCN QA402.2 .I58 2011. URL http://link.springer.com/content/pdf/10.1007/978-3-642-11304-8_12. Papers presented at the 19th International Conference on Domain Decomposition, DD19, hosted by the School of Mathematics and Computational Science of the Xiangtan University and the Hunan Key Laboratory for Computation and Simulation in Science and Engineering and held in Zhanjiajie, China, August 17–22, 2009.

Griebel:2011:MMP

[GS11c]

Michael Griebel and Marc Alexander Schweitzer, editors. *Meshfree Methods for Partial Differential Equations V*, volume 79 of *Lecture Notes in Computational Science and Engineering*. Springer-Verlag Inc., New York, NY, USA, 2011. CODEN LNCSA6. ISBN 3-642-16228-2 (print), 3-642-16229-0 (e-book). ISSN 1439-7358 (print), 2197-7100 (electronic). LCCN ???? URL <http://link.springer.com/book/10.1007/978-3-642-16229-9>; <http://www.springerlink.com/content/978-3-642-16229-9>. Proceedings of the Fifth International Workshop on Meshfree Methods for Partial Differential Equations held from August 17 to August 19, 2009 in Bonn, Germany.

Goncalves:2013:RPF

[GS13a]

Etereldes Gonçalves and Marcus Sarkis. Robust parameter-free multilevel methods for Neumann boundary control prob-

lems. In Bank [Ban13], pages 111–118. ISBN 3-642-35274-X (hardcover), 3-642-35275-8 (e-book). ISSN 1439-7358 (print), 2197-7100 (electronic). LCCN QA402.2 .I58 2011. URL http://link.springer.com/chapter/10.1007/978-3-642-35275-1_11/.

Griebel:2013:MMP

- [GS13b] Michael Griebel and Marc Alexander Schweitzer, editors. *Meshfree Methods for Partial Differential Equations VI*, volume 89 of *Lecture Notes in Computational Science and Engineering*. Springer-Verlag Inc., New York, NY, USA, 2013. CODEN LNCSA6. ISBN 3-642-32978-0 (print), 3-642-32979-9 (e-book). ISSN 1439-7358 (print), 2197-7100 (electronic). LCCN QA297 .I58 2011. URL <http://link.springer.com/book/10.1007/978-3-642-32979-1>; <http://www.springerlink.com/content/978-3-642-32979-1> 1. Proceedings of the Sixth International Workshop on Mesh-free Methods for Partial Differential Equations, October 4–6, 2011, Bonn, Germany.

Griebel:2014:MMP

- [GS14] Michael Griebel and Marc Alexander Schweitzer, editors. *Meshfree Methods for Partial Differential Equations VII*, volume 100 of *Lecture Notes in Computational Science and Engineering*. Springer-Verlag Inc., New York, NY, USA, 2014. ISBN 3-319-06898-9. 323 pp. LCCN QA71 .G75 2015; QA377.

Garbey:2009:CTM

- [GSDP09] M. Garbey, M. Smaoui, N. De Brye, and C. Picard. Computational tool for a mini-windmill study with SOFT. In Bercovier et al. [BGKW09], pages 291–297. CODEN LNCSA6. ISBN 3-642-02676-1 (print), 3-642-02677-X (e-book). ISSN 1439-7358 (print), 2197-7100 (electronic). LCCN QA402.2 .I584 2009. URL http://link.springer.com/content/pdf/10.1007/978-3-642-02677-5_32.

Gartner:1999:PMM

- [GSF99] K. Gärtner, O. Schenk, and W. Fichtner. Parallel multigrid methods for the continuity equations in semiconductor device simulation. In Bungartz et al. [BDZ99], pages 325–342. CODEN LNCSA6. ISBN 3-540-65730-4 (print), 3-642-60155-3 (e-book). ISSN 1439-7358 (print), 2197-7100 (electronic). LCCN Q183.9.I58 1998. URL http://link.springer.com/chapter/10.1007/978-3-642-60155-2_27/.

Graser:2009:TNN

- [GSS09] Carsten Gräser, Uli Sack, and Oliver Sander. Truncated non-smooth Newton multigrid methods for convex minimization problems. In Bercovier et al. [BGKW09], pages 129–136. CODEN LNCSA6. ISBN 3-642-02676-1 (print), 3-642-02677-X (e-book). ISSN 1439-7358 (print), 2197-7100 (electronic). LCCN QA402.2 .I584 2009. URL http://link.springer.com/content/pdf/10.1007/978-3-642-02677-5_12.

Giusti:2014:TDE

- [GSS14] S. M. Giusti, Jan Sokolowski, and Jan Stebel. Topology design of elastic structures for a contact model. In Hoppe [Hop14], pages 203–220. ISBN 3-319-08024-5 (paperback), 3-319-08025-3 (e-book). ISSN 1439-7358 (print), 2197-7100 (electronic). LCCN QA71-90; QA377. URL http://link.springer.com/chapter/10.1007/978-3-319-08025-3_6/.

Gamba:2008:SSN

- [GT08] I. M. Gamba and S. H. Tharkabhushanam. Spectral solvers to non-conservative transport for non-linear interactive systems of Boltzmann type. In Graziani [Gra08b], pages 75–104. CODEN LNCSA6. ISBN 3-540-77361-4 (print), 3-540-77362-2 (e-book). ISSN 1439-7358 (print), 2197-7100 (electronic). LCCN ????. URL http://link.springer.com/content/pdf/10.1007/978-3-540-77362-7_3. Proceedings of the 2006 Computational Methods in Transport (CMTW) conference.

Gonzalez:2011:AHO

- [GT11] Leo M. González and Vassilis Theofilis. Applications of high order methods to vortex instability calculations. In Hesthaven and Rønquist [HR11], pages 403–410. CODEN LNCSA6. ISBN 3-642-15336-4 (print), 3-642-15337-2 (e-book). ISSN 1439-7358 (print), 2197-7100 (electronic). LCCN ????. URL http://link.springer.com/content/pdf/10.1007/978-3-642-15337-2_38.

Guibert:2007:APS

- [GTD07] David Guibert and Damien Tromeur-Dervout. Adaptive Parareal for systems of ODEs. In Widlund and Keyes [WK07], pages 587–594. CODEN LNCSA6. ISBN 3-540-34468-3 (print), 3-540-34469-1 (e-book). ISSN 1439-7358 (print), 2197-7100 (electronic). LCCN QA402.2 .I55

2005. URL http://link.springer.com/content/pdf/10.1007/978-3-540-34469-8_73. Proceedings of the *Sixteenth International Conference on Domain Decomposition Methods*, New York City, January 11–15, 2005.

Guibert:2008:SCM

- [GTD08] David Guibert and Damien Tromeur-Dervout. A Schur complement method for DAE/ ODE systems in multi-domain mechanical design. In Langer et al. [LDK⁺08], pages 535–541. CODEN LNCSA6. ISBN 3-540-75198-X (print), 3-540-75199-8 (e-book). ISSN 1439-7358 (print), 2197-7100 (electronic). LCCN QA402.2 .I55 2006. URL http://link.springer.com/content/pdf/10.1007/978-3-540-75199-1_67. 17th International Conference on Domain Decomposition Methods held at St. Wolfgang/Strobl, Austria, July 3–7, 2006.

Guibert:2009:CDP

- [GTD09] D. Guibert and D. Tromeur-Dervout. Cyclic distribution of pipelined parallel deferred correction method for ODE/ DAE. In Tuncer et al. [TGEM09], pages 171–178. CODEN LNCSA6. ISBN 3-540-92743-3 (print), 3-540-92744-1 (e-book). ISSN 1439-7358 (print), 2197-7100 (electronic). LCCN ????. URL http://link.springer.com/content/pdf/10.1007/978-3-540-92744-0_21. Parallel CFD 2007 was held in Antalya, Turkey, from May 21 to 24, 2007.

Geller:2006:LBM

- [GTK06] Sebastian Geller, Jonas Tölke, and Manfred Krafczyk. Lattice-Boltzmann method on quadtree-type grids for fluid-structure interaction. In Bungartz and Schäfer [BS06], pages 270–293. CODEN LNCSA6. ISBN 3-540-34595-7 (print), 3-540-34596-5 (e-book). ISSN 1439-7358 (print), 2197-7100 (electronic). LCCN TA357.5.F58 F586 200. URL http://link.springer.com/content/pdf/10.1007/3-540-34596-5_11. Proceedings of a workshop on fluid-structure interactions held in Hohenwart, Germany, in October 2005.

Gorobets:2011:EFG

- [GTS⁺11] A. Gorobets, F. X. Trias, M. Soria, C. D. Pérez-Segarra, and A. Oliva. From extruded-2D to fully-3D geometries for DNS: a multigrid-based extension of the Poisson solver. In Tromeur-Dervout et al. [TDBEE11], pages 219–226. CODEN LNCSA6. ISBN 3-642-14437-3 (print), 3-642-14438-1 (e-

book). ISSN 1439-7358 (print), 2197-7100 (electronic). LCCN ???? URL http://link.springer.com/content/pdf/10.1007/978-3-642-14438-7_23. Proceedings of the twentieth meeting, Parallel CFD 2008, held May 19–22, 2008 in Lyon, France.

Gusken:2000:SET

- [Güs00a] Stephan Güsken. Stochastic estimator techniques for disconnected diagrams. In Frommer et al. [FLMS00], pages 115–126. CODEN LNCSA6. ISBN 3-540-67732-1 (print), 3-642-58333-4 (e-book). ISSN 1439-7358 (print), 2197-7100 (electronic). LCCN QC793.3.G38 N86 2000. URL http://link.springer.com/chapter/10.1007/978-3-642-58333-9_9/.

Gustavson:2000:NGD

- [Gus00b] F. G. Gustavson. New generalized data structures for matrices lead to a variety of high-performance algorithms. In Engquist et al. [EJHS00], pages 46–61. CODEN LNCSA6. ISBN 3-540-67264-8 (print), 3-642-57313-4 (e-book). ISSN 1439-7358 (print), 2197-7100 (electronic). LCCN QA76.9.C65 S535 2000. URL <http://link.springer.com/book/10.1007/978-3-642-57313-2>; <http://www.pdc.kth.se/conference/2000/>; <http://www.springerlink.com/content/978-3-642-57313-2>.

Gustayson:2000:NGD

- [Gus00c] Fred G. Gustayson. New generalized data structures for matrices lead to a variety of high-performance algorithms. In Engquist et al. [EJHS00], pages 46–61. CODEN LNCSA6. ISBN 3-540-67264-8 (print), 3-642-57313-4 (e-book). ISSN 1439-7358 (print), 2197-7100 (electronic). LCCN QA76.9.C65 S535 2000. URL http://link.springer.com/chapter/10.1007/978-3-642-57313-2_4/.

Gutknecht:2000:LTM

- [Gut00] Martin H. Gutknecht. On Lanczos-type methods for Wilson fermions. In Frommer et al. [FLMS00], pages 48–65. CODEN LNCSA6. ISBN 3-540-67732-1 (print), 3-642-58333-4 (e-book). ISSN 1439-7358 (print), 2197-7100 (electronic). LCCN QC793.3.G38 N86 2000. URL http://link.springer.com/chapter/10.1007/978-3-642-58333-9_5/.

Gander:2007:SLC

- [GV07] Martin J. Gander and Stefan Vandewalle. On the superlinear and linear convergence of the Parareal algorithm. In Widlund and Keyes [WK07], pages 291–298. CODEN LNCSA6. ISBN 3-540-34468-3 (print), 3-540-34469-1 (e-book). ISSN 1439-7358 (print), 2197-7100 (electronic). LCCN QA402.2 .I55 2005. URL http://link.springer.com/content/pdf/10.1007/978-3-540-34469-8_34. Proceedings of the *Sixteenth International Conference on Domain Decomposition Methods*, New York City, January 11–15, 2005.

Giering:2012:IML

- [GV12] Ralf Giering and Michael Voßbeck. Increasing memory locality by executing several model instances simultaneously. In Forth et al. [FHP⁺12], pages 93–101. CODEN LNCSA6. ISBN 3-642-30022-7 (print), 3-642-30023-5 (e-book). ISSN 1439-7358 (print), 2197-7100 (electronic). LCCN ???? URL http://link.springer.com/content/pdf/10.1007/978-3-642-30023-3_9. Proceedings of the Sixth International Conference on Automatic Differentiation (AD2012) held July 23–27, 2012, in Fort Collins, Colorado, USA.

Gerstenmaier:2002:HCE

- [GW02] Y. C. Gerstenmaier and G. Wachutka. Heat conduction as eigenvalue problem. In Breuer et al. [BDZ02], pages 401–408. CODEN LNCSA6. ISBN 3-540-42946-8 (print), 3-642-55919-0 (e-book). ISSN 1439-7358 (print), 2197-7100 (electronic). LCCN Q183.9 .I58 2001. URL http://link.springer.com/content/pdf/10.1007/978-3-642-55919-8_44.

Godel:2011:MEE

- [GWC11] N. Gödel, T. Warburton, and M. Clemens. Modeling effects of electromagnetic waves on thin wires with a high-order discontinuous Galerkin method. In Hesthaven and Rønquist [HR11], pages 209–218. CODEN LNCSA6. ISBN 3-642-15336-4 (print), 3-642-15337-2 (e-book). ISSN 1439-7358 (print), 2197-7100 (electronic). LCCN ???? URL http://link.springer.com/content/pdf/10.1007/978-3-642-15337-2_18.

Gath:2002:RIT

- [GWMW02] P. Gath, A. Wiegand, A. Markl, and K. H. Well. Recent improvements in the trajectory optimization software ASTOS.

In Breuer et al. [BDZ02], pages 305–312. CODEN LNCSA6. ISBN 3-540-42946-8 (print), 3-642-55919-0 (e-book). ISSN 1439-7358 (print), 2197-7100 (electronic). LCCN Q183.9 .I58 2001. URL http://link.springer.com/content/pdf/10.1007/978-3-642-55919-8_34.

Gorke:2012:DP

[GWTW12] Uwe-Jens Görke, Norihiro Watanabe, Joshua Taron, and Wenqing Wang. Deformation processes. In Kolditz et al. [KGSW12], pages 161–199. CODEN LNCSA6. ISBN 3-642-27176-6 (print), 3-642-27177-4 (e-book). ISSN 1439-7358 (print), 2197-7100 (electronic). LCCN ???? URL http://link.springer.com/content/pdf/10.1007/978-3-642-27177-9_9.

Gunzburger:2014:AWS

[GWZ14] Max Gunzburger, Clayton G. Webster, and Guannan Zhang. An adaptive wavelet stochastic collocation method for irregular solutions of partial differential equations with random input data. In Garcke and Pflüger [GP14], pages 137–170. ISBN 3-319-04536-9 (paperback), 3-319-04537-7 (e-book). LCCN QA188 .S63 2013. URL http://link.springer.com/chapter/10.1007/978-3-319-04537-5_6/.

Gillman:2012:NHA

[GY12] Adrianna Gillman and Patrick Young. Numerical homogenization via approximation of the solution operator. In Engquist et al. [ERT12], pages 187–216. CODEN LNCSA6. ISBN 3-642-21942-X (print), 3-642-21943-8 (e-book). ISSN 1439-7358 (print), 2197-7100 (electronic). LCCN ???? URL http://link.springer.com/content/pdf/10.1007/978-3-642-21943-6_9.

Gorban:2008:EMN

[GZ08a] Alexander N. Gorban and Andrei Y. Zinovyev. Elastic maps and nets for approximating principal manifolds and their application to microarray data visualization. In Gorban et al. [GKWZ08], pages 96–130. CODEN LNCSA6. ISBN 3-540-73749-9 (print), 3-540-73750-2 (e-book). ISSN 1439-7358 (print), 2197-7100 (electronic). LCCN QA278.5 .P75 2008. URL http://link.springer.com/content/pdf/10.1007/978-3-540-73750-6_4.

Gorban:2008:PKM

- [GZ08b] Alexander N. Gorban and Andrei Y. Zinovyev. PCA and K-means decipher genome. In Gorban et al. [GKWZ08], pages 309–323. CODEN LNCSA6. ISBN 3-540-73749-9 (print), 3-540-73750-2 (e-book). ISSN 1439-7358 (print), 2197-7100 (electronic). LCCN QA278.5 .P75 2008. URL http://link.springer.com/content/pdf/10.1007/978-3-540-73750-6_14.

Gander:2014:OSM

- [GZ14] Martin J. Gander and Hui Zhang. Optimized Schwarz methods with overlap for the Helmholtz equation. In Erhel et al. [EGH⁺14], pages 207–215. ISBN 3-319-05788-X (paperback), 3-319-05789-8 (e-book). ISSN 1439-7358 (print), 2197-7100 (electronic). LCCN QA71-90. URL http://link.springer.com/chapter/10.1007/978-3-319-05789-7_17/.

Gao:2007:MBD

- [GZS07] Xiaowei Gao, Chuanzeng Zhang, and Jan Sladek. A meshless BEM for 2-D stress analysis in linear elastic FGMs. In Griebel and Schweitzer [GS07b], pages 105–119. CODEN LNCSA6. ISBN 3-540-46214-7 (print), 3-540-46222-8 (e-book). ISSN 1439-7358 (print), 2197-7100 (electronic). LCCN QA377 .M45 2005. URL http://link.springer.com/content/pdf/10.1007/978-3-540-46222-4_7. Third international workshop on Meshfree Methods for Partial Differential Equations held from September 12 to September 15, 2005 in Bonn, Germany.

Haakan:2009:QMC

- [HÅ09] Hugosson W. Håkan and Hans Ågren. Quantum Mechanics/classical mechanics modeling of biological systems. In Engquist et al. [ELR09], pages 291–294. CODEN LNCSA6. ISBN 3-540-88856-X (paperback), 3-540-88857-8 (e-book). ISSN 1439-7358 (print), 2197-7100 (electronic). LCCN Q183.9 .M86 2009. URL http://link.springer.com/content/pdf/10.1007/978-3-540-88857-4_6. Summer School on Multiscale Modeling and Simulation in Science, Bosön, Lidingö outside Stockholm, Sweden, June 2007.

Hagstrom:2015:SPH

- [HA15] Thomas Hagstrom and Daniel Appelö. Solving PDEs with Hermite interpolation. In Kirby et al. [KBH15], pages 31–49. ISBN 3-319-19799-1, 3-319-19800-9 (e-book). LCCN

QA377. URL http://link.springer.com/chapter/10.1007/978-3-319-19800-2_3/.

Hackbusch:2013:USG

- [Hac13] Wolfgang Hackbusch. The use of sparse grid approximation for the r -term tensor representation. In Garcke and Griebel [GG13], pages 151–159. CODEN LNCSA6. ISBN 3-642-31702-2 (print), 3-642-31703-0 (e-book). ISSN 1439-7358 (print), 2197-7100 (electronic). LCCN ???? URL http://link.springer.com/content/pdf/10.1007/978-3-642-31703-3_7. Proceedings of workshop in Bonn, Germany, from May 16–20, 2011.

Hagstrom:2003:NRA

- [Hag03] Thomas Hagstrom. New results on absorbing layers and radiation boundary conditions. In Ainsworth et al. [ADD⁺03], pages 1–42. CODEN LNCSA6. ISBN 3-540-00744-X (print), 3-642-55483-0 (e-book). ISSN 1439-7358 (print), 2197-7100 (electronic). LCCN QC661 .T67 2003. URL http://link.springer.com/content/pdf/10.1007/978-3-642-55483-4_1. Proceedings of the LMS Durham Symposium on Computational Methods for Wave Propagation in Direct Scattering University of Durham, 15–25 July 2002.

Hake:2012:CSD

- [Hak12] Johan Hake. A coupled stochastic and deterministic model of Ca^{2+} dynamics in the dyadic cleft. In Logg et al. [LMW12a], pages 611–627. CODEN LNCSA6. ISBN 3-642-23098-9 (print), 3-642-23099-7 (e-book). ISSN 1439-7358 (print), 2197-7100 (electronic). LCCN ???? URL http://link.springer.com/content/pdf/10.1007/978-3-642-23099-8_33. The software developed by the FEniCS Project is free for all to use and modify (licensed under the GNU (L)GPL), and so is this book.

Hale:2004:STB

- [Hal04] Jack K. Hale. Synchronization through boundary interaction. In Niculescu and Gu [NG04], pages 225–232. CODEN LNCSA6. ISBN 3-540-20890-9 (print), 3-642-18482-0 (e-book). ISSN 1439-7358 (print), 2197-7100 (electronic). LCCN TJ213 .A253 2004. URL http://link.springer.com/content/pdf/10.1007/978-3-642-18482-6_16. Most of the chapters are based on the materials presented in the

CNRS-NSF Workshop *Advances in Time-Delay Systems* held in Paris in January 22–24, 2003.

Halpern:2007:OSL

- [Hal07] Laurence Halpern. Optimized sponge layers, optimized Schwarz waveform relaxation algorithms for convection-diffusion problems and best approximation. In Widlund and Keyes [WK07], pages 299–306. CODEN LNCSA6. ISBN 3-540-34468-3 (print), 3-540-34469-1 (e-book). ISSN 1439-7358 (print), 2197-7100 (electronic). LCCN QA402.2 .I55 2005. URL http://link.springer.com/content/pdf/10.1007/978-3-540-34469-8_35. Proceedings of the *Sixteenth International Conference on Domain Decomposition Methods*, New York City, January 11–15, 2005.

Halpern:2008:SWR

- [Hal08] Laurence Halpern. Schwarz waveform relaxation algorithms. In Langer et al. [LDK⁺08], pages 57–68. CODEN LNCSA6. ISBN 3-540-75198-X (print), 3-540-75199-8 (e-book). ISSN 1439-7358 (print), 2197-7100 (electronic). LCCN QA402.2 .I55 2006. URL http://link.springer.com/content/pdf/10.1007/978-3-540-75199-1_5. 17th International Conference on Domain Decomposition Methods held at St. Wolfgang/Strobl, Austria, July 3–7, 2006.

Halpern:2009:OSW

- [Hal09] Laurence Halpern. Optimized Schwarz waveform relaxation: Roots, blossoms and fruits. In Bercovier et al. [BGKW09], pages 225–232. CODEN LNCSA6. ISBN 3-642-02676-1 (print), 3-642-02677-X (e-book). ISSN 1439-7358 (print), 2197-7100 (electronic). LCCN QA402.2 .I584 2009. URL http://link.springer.com/content/pdf/10.1007/978-3-642-02677-5_24.

Hascoeet:2006:ADF

- [HAP06] Laurent Hascoëet and Mauricio Araya-Polo. The adjoint data-flow analyses: Formalization, properties, and applications. In Bücker et al. [BCH⁺06], pages 135–146. CODEN LNCSA6. ISBN 3-540-28403-6 (print), 3-540-28438-9 (e-book). ISSN 1439-7358 (print), 2197-7100 (electronic). LCCN QA304 .I58 2006. URL http://link.springer.com/content/pdf/10.1007/3-540-28438-9_12. Proceedings of the Fourth Interna-

tional Conference on Automatic Differentiation, July 20–23, Chicago, Illinois.

Haynes:2011:RAS

- [Hay11] Ronald D. Haynes. Recent advances in Schwarz waveform moving mesh methods- a new moving subdomain method. In Huang et al. [HKWX11], pages 253–260. CODEN LNCSA6. ISBN 3-642-11303-6 (print), 3-642-11304-4 (e-book). ISSN 1439-7358 (print), 2197-7100 (electronic). LCCN QA402.2 .I58 2011. URL http://link.springer.com/content/pdf/10.1007/978-3-642-11304-8_28. Papers presented at the 19th International Conference on Domain Decomposition, DD19, hosted by the School of Mathematics and Computational Science of the Xiangtan University and the Hunan Key Laboratory for Computation and Simulation in Science and Engineering and held in Zhanjiajie, China, August 17–22, 2009.

Haider:2014:PIE

- [HBCC14] Florian Haider, Pierre Brenner, Bernard Courbet, and Jean-Pierre Croisille. Parallel implementation of k -exact finite volume reconstruction on unstructured grids. In Abgrall et al. [ABC⁺14], pages 59–75. ISBN 3-319-05454-6 (paperback), 3-319-05455-4 (e-book). ISSN 1439-7358 (print), 2197-7100 (electronic). LCCN QA374 .A384 2014. URL http://link.springer.com/chapter/10.1007/978-3-319-05455-1_4/.

Hildenbrand:2005:MGS

- [HBW05] Jürgen Hildenbrand, Tamara Bechtold, and Jürgen Wöllenstein. Microhotplate gas sensor. In Benner et al. [BMS05c], pages 333–336. CODEN LNCSA6. ISBN 3-540-24545-6 (print), 3-540-27909-1 (e-book). ISSN 1439-7358 (print), 2197-7100 (electronic). LCCN TA347.C68 D56 2005. URL http://link.springer.com/content/pdf/10.1007/3-540-27909-1_14.

Hampton:2006:BSA

- [HBW⁺06] Scott S. Hampton, Paul Brenner, Aaron Wenger, Santanu Chatterjee, and Jesús A. Izaguirre. Biomolecular sampling: Algorithms, test molecules, and metrics. In Leimkuhler et al. [LCE⁺06], pages 103–123. CODEN LNCSA6. ISBN 3-540-25542-7 (print), 3-540-31618-3 (e-book). ISSN 1439-7358 (print), 2197-7100 (electronic). LCCN QP517.M3 N49

2006. URL http://link.springer.com/content/pdf/10.1007/3-540-31618-3_7. Papers from the fourth edition of *Algorithms for Macromolecular Modelling*, Leicester, UK August 2004.

Hohlfeld:2005:TOF

- [HBZ05] Dennis Hohlfeld, Tamara Bechtold, and Hans Zappe. Tunable optical filter. In Benner et al. [BMS05c], pages 337–340. CODEN LNCSA6. ISBN 3-540-24545-6 (print), 3-540-27909-1 (e-book). ISSN 1439-7358 (print), 2197-7100 (electronic). LCCN TA347.C68 D56 2005. URL http://link.springer.com/content/pdf/10.1007/3-540-27909-1_15.

Hnat:2000:VMS

- [HC00] Bogdan Hnat and Sandra C. Chapman. Visualization of multi-scale data sets in a self-organized criticality sandpile model. In Engquist et al. [EJHS00], pages 235–241. CODEN LNCSA6. ISBN 3-540-67264-8 (print), 3-642-57313-4 (e-book). ISSN 1439-7358 (print), 2197-7100 (electronic). LCCN QA76.9.C65 S535 2000. URL http://link.springer.com/chapter/10.1007/978-3-642-57313-2_23/.

Haddad:2004:SDT

- [HC04] Wassim M. Haddad and VijaySekhar Chellaboina. Stability and dissipativity theory for nonnegative and compartmental dynamical systems with time delay. In Niculescu and Gu [NG04], pages 421–435. CODEN LNCSA6. ISBN 3-540-20890-9 (print), 3-642-18482-0 (e-book). ISSN 1439-7358 (print), 2197-7100 (electronic). LCCN TJ213 .A253 2004. URL http://link.springer.com/content/pdf/10.1007/978-3-642-18482-6_29. Most of the chapters are based on the materials presented in the CNRS-NSF Workshop *Advances in Time-Delay Systems* held in Paris in January 22–24, 2003.

Hwang:2005:IRP

- [HC05] Feng-Nan Hwang and Xiao-Chuan Cai. Improving robustness and parallel scalability of Newton method through nonlinear preconditioning. In Kornhuber et al. [KHP⁺05], pages 201–208. CODEN LNCSA6. ISBN 3-540-22523-4 (print), 3-540-26825-1 (e-book). ISSN 1439-7358 (print), 2197-7100 (electronic). LCCN QA402.2 .I55 2003. URL <http://link.springer.com/content/pdf/10.1007/3-540-26825->

1_17. Papers from the 15th International Conference on Domain Decomposition, Freie Universität Berlin (FU), Berlin, Germany, July 21–25, 2003.

He:2008:AT

- [HC08a] B. He and W. C. Chew. Addition theorem. In Ammari [Amm08], pages 203–226. CODEN LNCSA6. ISBN 3-540-73777-4 (print), 3-540-73778-2 (e-book). ISSN 1439-7358 (print), 2197-7100 (electronic). LCCN QC760.4.M37 M63 2008. URL http://link.springer.com/content/pdf/10.1007/978-3-540-73778-0_8.

Hu:2008:MAQ

- [HC08b] Wei Hu and Jiun-Shyan Chen. Multiscale approach for quantum systems. In Griebel and Schweitzer [GS08d], pages 121–139. CODEN LNCSA6. ISBN 3-540-79993-1 (print), 3-540-79994-X (e-book). ISSN 1439-7358 (print), 2197-7100 (electronic). LCCN ???? URL http://link.springer.com/content/pdf/10.1007/978-3-540-79994-8_8. Fourth International Workshop on Meshfree Methods for Partial Differential Equations held from September 17 to September 20, 2007 in Bonn, Germany.

Ha-Duong:2003:RPB

- [HD03] Tuong Ha-Duong. On retarded potential boundary integral equations and their discretisation. In Ainsworth et al. [ADD⁺03], pages 301–336. CODEN LNCSA6. ISBN 3-540-00744-X (print), 3-642-55483-0 (e-book). ISSN 1439-7358 (print), 2197-7100 (electronic). LCCN QC661 .T67 2003. URL http://link.springer.com/content/pdf/10.1007/978-3-642-55483-4_8. Proceedings of the LMS Durham Symposium on Computational Methods for Wave Propagation in Direct Scattering University of Durham, 15–25 July 2002.

Hayat:2004:DTD

- [HDA⁺04] Majeed M. Hayat, Sagar Dhakal, Chaouki T. Abdallah, J. Douglas Birdwell, and John Chiasson. Dynamic time delay models for load balancing. Part II: a stochastic analysis of the effect of delay uncertainty. In Niculescu and Gu [NG04], pages 371–385. CODEN LNCSA6. ISBN 3-540-20890-9 (print), 3-642-18482-0 (e-book). ISSN 1439-7358 (print), 2197-7100 (electronic). LCCN TJ213 .A253

2004. URL http://link.springer.com/content/pdf/10.1007/978-3-642-18482-6_27. Most of the chapters are based on the materials presented in the CNRS-NSF Workshop *Advances in Time-Delay Systems* held in Paris in January 22–24, 2003.

Hauke:2011:MAU

- [HDF11] G. Hauke, M. H. Doweidar, and S. Fuentes. Mesh adaptivity using VMS error estimators: Application to the transport equation. In Clavero et al. [CGL11], pages 147–155. CODEN LNCSA6. ISBN 3-642-19664-0 (print), 3-642-19665-9 (e-book). ISSN 1439-7358 (print), 2197-7100 (electronic). LCCN ????. URL http://link.springer.com/content/pdf/10.1007/978-3-642-19665-2_16. Selected papers from the proceedings of BAIL 2010 (Boundary and Interior Layers — Computational and Asymptotic Methods), held from 5 to 9 July 2010 at the University of Zaragoza, Spain.

Herrera:2005:MGV

- [HDY05] Ismael Herrera, Martin Diaz, and Robert Yates. A more general version of the hybrid-Trefftz finite element model by application of TH-domain decomposition. In Kornhuber et al. [KHP⁺05], pages 301–308. CODEN LNCSA6. ISBN 3-540-22523-4 (print), 3-540-26825-1 (e-book). ISSN 1439-7358 (print), 2197-7100 (electronic). LCCN QA402.2.I55 2003. URL http://link.springer.com/content/pdf/10.1007/3-540-26825-1_29. Papers from the 15th International Conference on Domain Decomposition, Freie Universität Berlin (FU), Berlin, Germany, July 21–25, 2003.

Helton:2008:USA

- [Hel08] J. C. Helton. Uncertainty and sensitivity analysis for models of complex systems. In Graziani [Gra08b], pages 207–228. CODEN LNCSA6. ISBN 3-540-77361-4 (print), 3-540-77362-2 (e-book). ISSN 1439-7358 (print), 2197-7100 (electronic). LCCN ????. URL http://link.springer.com/content/pdf/10.1007/978-3-540-77362-7_9. Proceedings of the 2006 Computational Methods in Transport (CMTW) conference.

Hughes:2000:CDC

- [HEML00] Thomas J. R. Hughes, Gerald Engel, Luca Mazzei, and Mats G. Larson. A comparison of discontinuous and continuous Galerkin methods based on error estimates, conservation, robustness and efficiency. In Cockburn et al. [CKS00b],

pages 135–146. CODEN LNCSA6. ISBN 3-540-66787-3, 3-642-64098-2 (print), 3-642-59721-1 (e-book). ISSN 1439-7358 (print), 2197-7100 (electronic). LCCN TA347.F5 D57 2000. URL http://link.springer.com/chapter/10.1007/978-3-642-59721-3_9/. Papers from the first international symposium on DGM Newport, Rhode Island, USA, May 24–26, 1999.

Henderson:1999:ASE

- [Hen99] Ronald D. Henderson. Adaptive spectral element methods for turbulence and transition. In *High order methods for computational physics* [BD99], pages 225–324 (??). CODEN LNCSA6. ISBN 3-540-65893-9 (paperback). ISSN 1439-7358 (print), 2197-7100 (electronic). LCCN QA911 .H46 1999.

Henshaw:2005:AMR

- [Hen05] William D. Henshaw. Adaptive mesh refinement on overlapping grids. In Plewa et al. [PLW05], pages 59–71. CODEN LNCSA6. ISBN 3-540-21147-0 (print), 3-540-27039-6 (e-book). ISSN 1439-7358 (print), 2197-7100 (electronic). LCCN QA377 .C46 2003. URL http://link.springer.com/content/pdf/10.1007/3-540-27039-6_3.

Herlach:2003:GDD

- [Her03] Dieter Herlach. Growth dynamics during solidification of undercooled melts. In Emmerich et al. [ENS03], page ?? CODEN LNCSA6. ISBN 3-540-40367-1. ISSN 1439-7358 (print), 2197-7100 (electronic). LCCN QC173.4.I57 I57 2003. URL <http://www.loc.gov/catdir/enhancements/fy0818/2003060231-d.html>. Papers from the workshop on “Computational Physics of Transport and Interfacial Dynamics”, Dresden, February 25–March 8, 2002.

Hetmaniuk:2002:BFR

- [HF02] Ulrich Hetmaniuk and Charbel Farhat. A blended Fictitious/real domain decomposition method for partially axisymmetric exterior Helmholtz problems with Dirichlet boundary conditions. In Pavarino and Toselli [PT02], pages 1–26. CODEN LNCSA6. ISBN 3-540-43413-5 (print), 3-642-56118-7 (e-book). ISSN 1439-7358 (print), 2197-7100 (electronic). LCCN QA402.2 .R43 2002. URL http://link.springer.com/content/pdf/10.1007/978-3-642-56118-4_1. Papers

presented at the Workshop on Domain Decomposition held at ETH, Zurich, June 7–8, 2001.

Hadrava:2015:STD

- [HFHK15] Martin Hadrava, Miloslav Feistauer, Jaromír Horáček, and Adam Kosík. Space–time discontinuous Galerkin method for the problem of linear elasticity. In Abdulle et al. [ADK⁺15], pages 115–123. ISBN 3-319-10704-6 (paperback), 3-319-10705-4 (e-book). ISSN 1439-7358 (print), 2197-7100 (electronic). LCCN QA76.9.M35 .E976 2015. URL http://link.springer.com/chapter/10.1007/978-3-319-10705-9_11/.

Hoffmann:2006:MAE

- [HFSS06] Karl Heinz Hoffmann, Andreas Fischer, Sven Schubert, and Thomas Streibert. Modelling aging experiments in spin glasses. In Hoffmann and Meyer [HM06], pages 281–302. CODEN LNCSA6. ISBN 3-540-33539-0 (print), 3-540-33541-2 (e-book). ISSN 1439-7358 (print), 2197-7100 (electronic). LCCN QA76.58 .P358 2006. URL http://link.springer.com/content/pdf/10.1007/3-540-33541-2_16.

Hadri:2009:FPB

- [HG09] B. Hadri and M. Garbey. A fast parallel blood flow simulator. In Tuncer et al. [TGEM09], pages 363–370. CODEN LNCSA6. ISBN 3-540-92743-3 (print), 3-540-92744-1 (e-book). ISSN 1439-7358 (print), 2197-7100 (electronic). LCCN ???? URL http://link.springer.com/content/pdf/10.1007/978-3-540-92744-0_45. Parallel CFD 2007 was held in Antalya, Turkey, from May 21 to 24, 2007.

Halbwachs:2000:GMG

- [HH00] Yvon Halbwachs and Øyvind Hjelle. Generalized maps in geological modeling: Object-oriented design of topological kernels. In Langtangen et al. [LBQ00], pages 339–356. CODEN LNCSA6. ISBN 3-540-66557-9 (softcover), 3-642-57172-7 (e-book). ISSN 1439-7358 (print), 2197-7100 (electronic). LCCN QA76.6 .A336 2000. URL http://link.springer.com/chapter/10.1007/978-3-642-57172-5_11/. Papers from an International Workshop on Modern Software Tools for Scientific Computing (SciTools'98), Oslo, Norway, September 14–16, 1998.

Henrotte:2001:MFF

- [HH01] F. Henrotte and K. Hameyer. A mathematical framework for the finite element modelling of electromechanical problems. In van Rienen et al. [vRGH01], pages 359–365. CODEN LNCSA6. ISBN 3-540-42173-4 (softcover), 3-642-56470-4 (e-book). ISSN 1439-7358 (print), 2197-7100 (electronic). LCCN TK5 .S35 2001. URL http://link.springer.com/content/pdf/10.1007/978-3-642-56470-3_36. Selected contributions presented at the 3rd International Workshop on Scientific Computing in Electrical Engineering.

Hebermehl:2003:SMS

- [HH03] Georg Hebermehl and Friedrich Karl Hübner. Simulation of microwave and semiconductor laser structures including absorbing boundary conditions. In Bänsch [Bän03], pages 131–159. CODEN LNCSA6. ISBN 3-642-62406-5 (print), 3-642-19014-6 (e-book). ISSN 1439-7358 (print), 2197-7100 (electronic). LCCN ????. URL http://link.springer.com/content/pdf/10.1007/978-3-642-19014-8_7.

Heil:2006:OLO

- [HH06] Matthias Heil and Andrew L. Hazel. `oomph-lib` — an OBJECT-ORIENTED MULTI-PHYSICS FINITE-ELEMENT LIBRARY. In Bungartz and Schäfer [BS06], pages 19–49. CODEN LNCSA6. ISBN 3-540-34595-7 (print), 3-540-34596-5 (e-book). ISSN 1439-7358 (print), 2197-7100 (electronic). LCCN TA357.5.F58 F586 200. URL http://link.springer.com/content/pdf/10.1007/3-540-34596-5_2. Proceedings of a workshop on fluid-structure interactions held in Hohenwart, Germany, in October 2005.

Haberlein:2014:OSW

- [HH14a] Florian Häberlein and Laurence Halpern. Optimized Schwarz waveform relaxation for nonlinear systems of parabolic type. In Erhel et al. [EGH⁺14], pages 29–42. ISBN 3-319-05788-X (paperback), 3-319-05789-8 (e-book). ISSN 1439-7358 (print), 2197-7100 (electronic). LCCN QA71-90. URL http://link.springer.com/chapter/10.1007/978-3-319-05789-7_3/.

Harding:2014:RSP

- [HH14b] Brendan Harding and Markus Hegland. Robust solutions to PDEs with multiple grids. In Garcke and Pflüger [GP14],

pages 171–193. ISBN 3-319-04536-9 (paperback), 3-319-04537-7 (e-book). LCCN QA188 .S63 2013. URL http://link.springer.com/chapter/10.1007/978-3-319-04537-5_7/.

Haynes:2014:GEM

- [HH14c] Ronald D. Haynes and Alexander J. M. Howse. Generating equidistributed meshes in 2D via domain decomposition. In Erhel et al. [EGH⁺14], pages 167–177. ISBN 3-319-05788-X (paperback), 3-319-05789-8 (e-book). ISSN 1439-7358 (print), 2197-7100 (electronic). LCCN QA71-90. URL http://link.springer.com/chapter/10.1007/978-3-319-05789-7_13/.

Heumann:2015:SGL

- [HH15] Holger Heumann and Ralf Hiptmair. Stabilized Galerkin for linear advection of vector fields. In Abdulle et al. [ADK⁺15], pages 37–45. ISBN 3-319-10704-6 (paperback), 3-319-10705-4 (e-book). ISSN 1439-7358 (print), 2197-7100 (electronic). LCCN QA76.9.M35 .E976 2015. URL http://link.springer.com/chapter/10.1007/978-3-319-10705-9_3/.

Hawlitzky:2004:CSS

- [HHB04] Michael Hawlitzky, Jürgen Horbach, and Kurt Binder. Computer simulations of SiO₂ and GeO₂. In Attinger and Koumoutsakos [AK04], pages 187–193. CODEN LNCSA6. ISBN 3-540-21180-2 (print), 3-642-18756-0 (e-book). ISSN 1439-7358 (print), 2197-7100 (electronic). LCCN TA342 .M85 2004. URL http://link.springer.com/content/pdf/10.1007/978-3-642-18756-8_13. Proceedings of a Summer Program in Multi-Scale Modelling and Simulation held in Lugano, Switzerland, between August 4th and 30th, 2003.

Hsu:2011:SFS

- [HHLL11] Hsin-Wei Hsu, Jian-Bin Hsu, Wei Lo, and Chao-An Lin. Secondary flow structure of turbulent Couette–Poiseuille and Couette flows inside a square duct. In Tromeur-Dervout et al. [TDBEE11], pages 425–432. CODEN LNCSA6. ISBN 3-642-14437-3 (print), 3-642-14438-1 (e-book). ISSN 1439-7358 (print), 2197-7100 (electronic). LCCN ????? URL http://link.springer.com/content/pdf/10.1007/978-3-642-14438-7_45. Proceedings of the twentieth meeting, Parallel CFD 2008, held May 19–22, 2008 in Lyon, France.

Haynes:2008:MMM

- [HHR08] Ronald D. Haynes, Weizhang Huang, and Robert D. Russell. A moving mesh method for time-dependent problems based on Schwarz waveform relaxation. In Langer et al. [LDK⁺08], pages 229–236. CODEN LNCSA6. ISBN 3-540-75198-X (print), 3-540-75199-8 (e-book). ISSN 1439-7358 (print), 2197-7100 (electronic). LCCN QA402.2 .I55 2006. URL http://link.springer.com/content/pdf/10.1007/978-3-540-75199-1_25. 17th International Conference on Domain Decomposition Methods held at St. Wolfgang/Strobl, Austria, July 3–7, 2006.

Horger:2015:ECF

- [HHR⁺15] Thomas Horger, Markus Huber, Ulrich Rde, Christia Waluga, and Barbara Wohlmuth. Energy-corrected finite element methods for scalar elliptic problems. In Abdulle et al. [ADK⁺15], pages 19–36. ISBN 3-319-10704-6 (paperback), 3-319-10705-4 (e-book). ISSN 1439-7358 (print), 2197-7100 (electronic). LCCN QA76.9.M35 .E976 2015. URL http://link.springer.com/chapter/10.1007/978-3-319-10705-9_2/.

Hebermehl:2001:NSL

- [HHS⁺01] G. Hebermehl, F. Hubner, R. Schlundt, T. Tischler, H. Zscheile, and W. Heinrich. Numerical simulation for lossy microwave transmission lines including PML. In van Rienen et al. [vRGH01], pages 267–275. CODEN LNCSA6. ISBN 3-540-42173-4 (softcover), 3-642-56470-4 (e-book). ISSN 1439-7358 (print), 2197-7100 (electronic). LCCN TK5 .S35 2001. URL http://link.springer.com/content/pdf/10.1007/978-3-642-56470-3_27. Selected contributions presented at the 3rd International Workshop on Scientific Computing in Electrical Engineering.

Heemink:2010:DAA

- [HHS10] A. W. Heemink, R. G. Hanea, and J. Sumihar. Data assimilation algorithms for numerical models. In Koren and Vuik [KV10], pages 107–142. CODEN LNCSA6. ISBN 3-642-03343-1 (print), 3-642-03344-X (e-book). ISSN 1439-7358 (print), 2197-7100 (electronic). LCCN Q183.9 .A35 2010. URL http://link.springer.com/content/pdf/10.1007/978-3-642-03344-5_5.

Hientzsch:2005:DDP

- [Hie05] Bernhard Hientzsch. Domain decomposition preconditioners for spectral Nédélec elements in two and three dimensions. In Kornhuber et al. [KHP⁺05], pages 597–604. CODEN LNCSA6. ISBN 3-540-22523-4 (print), 3-540-26825-1 (e-book). ISSN 1439-7358 (print), 2197-7100 (electronic). LCCN QA402.2 .I55 2003. URL http://link.springer.com/content/pdf/10.1007/3-540-26825-1_63. Papers from the 15th International Conference on Domain Decomposition, Freie Universität Berlin (FU), Berlin, Germany, July 21–25, 2003.

Hiptmair:2003:BEM

- [Hip03] Ralf Hiptmair. Boundary element methods for eddy current computation. In Carstensen et al. [CFH⁺03], pages 103–126. CODEN LNCSA6. ISBN 3-540-44392-4 (print), 3-642-55745-7 (e-book). ISSN 1439-7358 (print), 2197-7100 (electronic). LCCN QC665.E4 G35 2001. URL http://link.springer.com/content/pdf/10.1007/978-3-642-55745-3_8.

Hoppe:2005:DDM

- [HIRW05] Ronald H. W. Hoppe, Yuri Iliash, Siegfried Ramminger, and Gerhard Wachutka. Domain decomposition methods in electrothermomechanical coupling problems. In Kornhuber et al. [KHP⁺05], pages 387–394. CODEN LNCSA6. ISBN 3-540-22523-4 (print), 3-540-26825-1 (e-book). ISSN 1439-7358 (print), 2197-7100 (electronic). LCCN QA402.2 .I55 2003. URL http://link.springer.com/content/pdf/10.1007/3-540-26825-1_39. Papers from the 15th International Conference on Domain Decomposition, Freie Universität Berlin (FU), Berlin, Germany, July 21–25, 2003.

Huynh:2007:FHS

- [HIT07] Quyen Huynh, Kazufumi Ito, and Jari Toivanen. A fast Helmholtz solver for scattering by a sound-soft target in sediment. In Widlund and Keyes [WK07], pages 595–602. CODEN LNCSA6. ISBN 3-540-34468-3 (print), 3-540-34469-1 (e-book). ISSN 1439-7358 (print), 2197-7100 (electronic). LCCN QA402.2 .I55 2005. URL http://link.springer.com/content/pdf/10.1007/978-3-540-34469-8_74. Proceedings of the *Sixteenth International Conference on Domain Decomposition Methods*, New York City, January 11–15, 2005.

Hoffman:2003:AFE

- [HJ03] Johan Hoffman and Claes Johnson. Adaptive finite element methods for incompressible fluid flow. In Barth and Deconinck [BD03], page ?? CODEN LNCSA6. ISBN 3-540-43758-4. ISSN 1439-7358 (print), 2197-7100 (electronic). LCCN TA357 .E78 2003. URL <http://www.loc.gov/catdir/enhancements/fy0815/2002030472-d.html>; <http://www.loc.gov/catdir/toc/fy034/2002030472.html>.

Halpern:2008:DGN

- [HJ08] Laurence Halpern and Caroline Japhet. Discontinuous Galerkin and nonconforming in time optimized Schwarz wave-form relaxation for heterogeneous problems. In Langer et al. [LDK⁺08], pages 211–219. CODEN LNCSA6. ISBN 3-540-75198-X (print), 3-540-75199-8 (e-book). ISSN 1439-7358 (print), 2197-7100 (electronic). LCCN QA402.2 .I55 2006. URL http://link.springer.com/content/pdf/10.1007/978-3-540-75199-1_23. 17th International Conference on Domain Decomposition Methods held at St. Wolfgang/Strobl, Austria, July 3–7, 2006.

Hoffman:2012:UUC

- [HJD⁺12] Johan Hoffman, Johan Jansson, Cem Degirmenci, Niclas Jansson, and Murtazo Nazarov. Unicorn: a unified continuum mechanics solver. In Logg et al. [LMW12a], pages 339–361. CODEN LNCSA6. ISBN 3-642-23098-9 (print), 3-642-23099-7 (e-book). ISSN 1439-7358 (print), 2197-7100 (electronic). LCCN ???? URL http://link.springer.com/content/pdf/10.1007/978-3-642-23099-8_18. The software developed by the FEniCS Project is free for all to use and modify (licensed under the GNU (L)GPL), and so is this book.

Hiptmair:2014:DDB

- [HJHLP14] Ralf Hiptmair, Carlos Jerez-Hanckes, Jin-Fa Lee, and Zhen Peng. Domain decomposition for boundary integral equations via local multi-trace formulations. In Erhel et al. [EGH⁺14], pages 43–57. ISBN 3-319-05788-X (paperback), 3-319-05789-8 (e-book). ISSN 1439-7358 (print), 2197-7100 (electronic). LCCN QA71-90. URL http://link.springer.com/chapter/10.1007/978-3-319-05789-7_4/.

Hoffman:2012:TFF

- [HJJ⁺12] Johan Hoffman, Johan Jansson, Niclas Jansson, Claes Johnson, and Rodrigo Vilela De Abreu. Turbulent flow and fluid-structure interaction. In Logg et al. [LMW12a], pages 543–552. CODEN LNCSA6. ISBN 3-642-23098-9 (print), 3-642-23099-7 (e-book). ISSN 1439-7358 (print), 2197-7100 (electronic). LCCN ????. URL http://link.springer.com/content/pdf/10.1007/978-3-642-23099-8_28. The software developed by the FEniCS Project is free for all to use and modify (licensed under the GNU (L)GPL), and so is this book.

Hernandez:2000:NTN

- [HJL00] Pilar Hernández, Karl Jansen, and Laurent Lellouche. A numerical treatment of Neuberger’s lattice Dirac operator. In Frommer et al. [FLMS00], pages 29–39. CODEN LNCSA6. ISBN 3-540-67732-1 (print), 3-642-58333-4 (e-book). ISSN 1439-7358 (print), 2197-7100 (electronic). LCCN QC793.3.G38 N86 2000. URL http://link.springer.com/chapter/10.1007/978-3-642-58333-9_3/.

Hoefler:2006:PAA

- [HJR06] Torsten Hoefler, Rebecca Janisch, and Wolfgang Rehm. A performance analysis of ABINIT on a cluster system. In Hoffmann and Meyer [HM06], pages 37–51. CODEN LNCSA6. ISBN 3-540-33539-0 (print), 3-540-33541-2 (e-book). ISSN 1439-7358 (print), 2197-7100 (electronic). LCCN QA76.58 .P358 2006. URL http://link.springer.com/content/pdf/10.1007/3-540-33541-2_3.

Halpern:2011:DGN

- [HJS11a] Laurence Halpern, Caroline Japhet, and Jérémie Szeftel. Discontinuous Galerkin and nonconforming in time optimized Schwarz waveform relaxation. In Huang et al. [HKWX11], pages 133–140. CODEN LNCSA6. ISBN 3-642-11303-6 (print), 3-642-11304-4 (e-book). ISSN 1439-7358 (print), 2197-7100 (electronic). LCCN QA402.2 .I58 2011. URL http://link.springer.com/content/pdf/10.1007/978-3-642-11304-8_13. Papers presented at the 19th International Conference on Domain Decomposition, DD19, hosted by the School of Mathematics and Computational Science of the Xiangtan University and the Hunan Key Labo-

ratory for Computation and Simulation in Science and Engineering and held in Zhanjiajie, China, August 17–22, 2009.

Halpern:2011:STN

- [HJS11b] Laurence Halpern, Caroline Japhet, and Jérémie Szeftel. Space-time nonconforming optimized Schwarz waveform relaxation for heterogeneous problems and general geometries. In Huang et al. [HKWX11], pages 75–86. CODEN LNCSA6. ISBN 3-642-11303-6 (print), 3-642-11304-4 (e-book). ISSN 1439-7358 (print), 2197-7100 (electronic). LCCN QA402.2 .I58 2011. URL http://link.springer.com/content/pdf/10.1007/978-3-642-11304-8_7. Papers presented at the 19th International Conference on Domain Decomposition, DD19, hosted by the School of Mathematics and Computational Science of the Xiangtan University and the Hunan Key Laboratory for Computation and Simulation in Science and Engineering and held in Zhanjiajie, China, August 17–22, 2009.

Hietel:2002:CCC

- [HK02] Dietmar Hietel and Rainer Keck. Consistency by coefficient-correction in the finite-volume-particle method. In Griebel and Schweitzer [GS02b], pages 211–221. CODEN LNCSA6. ISBN 3-540-43891-2 (print), 3-642-56103-9 (e-book). ISSN 1439-7358 (print), 2197-7100 (electronic). LCCN QA377 .M45 2003. URL http://link.springer.com/content/pdf/10.1007/978-3-642-56103-0_14. Proceedings of a workshop on Meshfree Methods for Partial Differential Equations, Institut für Angewandte Mathematik, Rheinische Friedrich-Wilhelms Universität Bonn, September 11–14, 2001.

Hart:2006:SCD

- [HK06] Frank P. Hart and Nikhil Kriplani. Streamlined circuit device model development with fREEDAR(R) and ADOL-C. In Bücker et al. [BCH⁺06], pages 295–307. CODEN LNCSA6. ISBN 3-540-28403-6 (print), 3-540-28438-9 (e-book). ISSN 1439-7358 (print), 2197-7100 (electronic). LCCN QA304 .I58 2006. URL http://link.springer.com/content/pdf/10.1007/3-540-28438-9_26. Proceedings of the Fourth International Conference on Automatic Differentiation, July 20–23, Chicago, Illinois.

He:2008:PBP

- [HK08a] Yuan He and David E. Keyes. PDE-based parameter reconstruction through Schur and Schwarz decompositions. In Langer et al. [LDK⁺08], pages 543–550. CODEN LNCSA6. ISBN 3-540-75198-X (print), 3-540-75199-8 (e-book). ISSN 1439-7358 (print), 2197-7100 (electronic). LCCN QA402.2 .I55 2006. URL http://link.springer.com/content/pdf/10.1007/978-3-540-75199-1_68. 17th International Conference on Domain Decomposition Methods held at St. Wolfgang/Strobl, Austria, July 3–7, 2006.

Hemez:2008:BOS

- [HK08b] F. M. Hemez and J. R. Kamm. A brief overview of the state-of-the-practice and current challenges of solution verification. In Graziani [Gra08b], pages 229–250. CODEN LNCSA6. ISBN 3-540-77361-4 (print), 3-540-77362-2 (e-book). ISSN 1439-7358 (print), 2197-7100 (electronic). LCCN ????? URL http://link.springer.com/content/pdf/10.1007/978-3-540-77362-7_10. Proceedings of the 2006 Computational Methods in Transport (CMTW) conference.

Hoppe:2008:MMP

- [HK08c] Ronald H. W. Hoppe and Ralf Kornhuber. MINISYMPOSIUM 6: Multiphysics problems. In Langer et al. [LDK⁺08], page 303. CODEN LNCSA6. ISBN 3-540-75198-X (print), 3-540-75199-8 (e-book). ISSN 1439-7358 (print), 2197-7100 (electronic). LCCN QA402.2 .I55 2006. URL http://link.springer.com/content/pdf/10.1007/978-3-540-75199-1_35. 17th International Conference on Domain Decomposition Methods held at St. Wolfgang/Strobl, Austria, July 3–7, 2006.

Hassen:2010:FVD

- [HK10] Yunus Hassen and Barry Koren. Finite-volume discretizations and immersed boundaries. In Koren and Vuik [KV10], pages 229–268. CODEN LNCSA6. ISBN 3-642-03343-1 (print), 3-642-03344-X (e-book). ISSN 1439-7358 (print), 2197-7100 (electronic). LCCN Q183.9 .A35 2010. URL http://link.springer.com/content/pdf/10.1007/978-3-642-03344-5_8.

Hinojosa:2015:TFT

- [HKH⁺15] Alfredo Parra Hinojosa, C. Kowitz, M. Heene, D. Pflüger, and H.-J. Bungartz. Towards a fault-tolerant, scalable implementation of GENE. In Mehl et al. [MBS15], pages 47–65. ISBN 3-319-22996-6, 3-319-22997-4 (e-book). LCCN QA71-90; TA329. URL http://link.springer.com/chapter/10.1007/978-3-319-22997-3_3/.

Hackbusch:2005:DSC

- [HKK05] Wolfgang Hackbusch, Boris N. Khoromskij, and Ronald Kriemann. Direct Schur complement method by hierarchical matrix techniques. In Kornhuber et al. [KHP⁺05], pages 581–588. CODEN LNCSA6. ISBN 3-540-22523-4 (print), 3-540-26825-1 (e-book). ISSN 1439-7358 (print), 2197-7100 (electronic). LCCN QA402.2 .I55 2003. URL http://link.springer.com/content/pdf/10.1007/3-540-26825-1_61. Papers from the 15th International Conference on Domain Decomposition, Freie Universität Berlin (FU), Berlin, Germany, July 21–25, 2003.

Haslinger:2014:CPS

- [HKK14] Jaroslav Haslinger, Radek Kucera, and Tomás Kozubek. Convex programming with separable ellipsoidal constraints: Application in contact problems with orthotropic friction. In Hoppe [Hop14], pages 221–242. ISBN 3-319-08024-5 (paperback), 3-319-08025-3 (e-book). ISSN 1439-7358 (print), 2197-7100 (electronic). LCCN QA71-90; QA377. URL http://link.springer.com/chapter/10.1007/978-3-319-08025-3_7/.

Haase:2001:PMS

- [HKL⁺01] G. Haase, M. Kuhn, U. Langer, S. Reitzinger, and J. Schoberl. Parallel Maxwell solvers. In van Rienen et al. [vRGH01], pages 71–78. CODEN LNCSA6. ISBN 3-540-42173-4 (softcover), 3-642-56470-4 (e-book). ISSN 1439-7358 (print), 2197-7100 (electronic). LCCN TK5 .S35 2001. URL http://link.springer.com/content/pdf/10.1007/978-3-642-56470-3_6. Selected contributions presented at the 3rd International Workshop on Scientific Computing in Electrical Engineering.

Huang:2015:SER

- [HKL15] Weizhang Huang, Lennard Kamenski, and Jens Lang. Stability of explicit Runge–Kutta methods for high order finite element approximation of linear parabolic equations. In Abdulle et al. [ADK⁺15], pages 165–173. ISBN 3-319-10704-6 (paperback), 3-319-10705-4 (e-book). ISSN 1439-7358 (print), 2197-7100 (electronic). LCCN QA76.9.M35 .E976 2015. URL http://link.springer.com/chapter/10.1007/978-3-319-10705-9_16/.

Hülsemann:2006:PGM

- [HKMR06] Frank Hülsemann, Markus Kowarschik, Marcus Mohr, and Ulrich Rude. Parallel geometric multigrid. In Bruaset and Tveito [BT06], pages 165–208. CODEN LNCSA6. ISBN 3-540-29076-1 (print), 3-540-31619-1 (e-book). ISSN 1439-7358 (print), 2197-7100 (electronic). LCCN QA377 .N87 2006. URL http://link.springer.com/content/pdf/10.1007/3-540-31619-1_5.

Hemker:1998:MPO

- [HKN98] P. W. Hemker, B. Koren, and J. Noordmans. 3D multigrid on partially ordered sets of grids. In Hackbusch and Witum [HW98], pages 105–124. CODEN LNCSA6. ISBN 3-540-63133-X (softcover), 3-642-58734-8 (e-book). ISSN 1439-7358 (print), 2197-7100 (electronic). LCCN QA377 .E94 1996. URL http://link.springer.com/chapter/10.1007/978-3-642-58734-4_6/.

Hegarty:2009:BBI

- [HKOS09] Alan Hegarty, Natalia Kopteva, Eugene O’Riordan, and Martin Stynes, editors. *BAIL 2008 — Boundary and Interior Layers: Proceedings of the International Conference on Boundary and Interior Layers — Computational and Asymptotic Methods, Limerick, July 2008*, volume 69 of *Lecture Notes in Computational Science and Engineering*. Springer-Verlag Inc., New York, NY, USA, 2009. CODEN LNCSA6. ISBN 3-642-00604-3 (print), 3-642-00605-1 (e-book). ISSN 1439-7358 (print), 2197-7100 (electronic). LCCN ????? URL <http://link.springer.com/book/10.1007/978-3-642-00605-0>; <http://www.springerlink.com/content/978-3-642-00605-0>.

Harbrecht:2006:WMC

- [HKS06] Helmut Harbrecht, Ulf Kähler, and Reinhold Schneider. Wavelet matrix compression for boundary integral equations. In Hoffmann and Meyer [HM06], pages 129–149. CODEN LNCSA6. ISBN 3-540-33539-0 (print), 3-540-33541-2 (e-book). ISSN 1439-7358 (print), 2197-7100 (electronic). LCCN QA76.58 .P358 2006. URL http://link.springer.com/content/pdf/10.1007/3-540-33541-2_8.

Huang:2011:DDM

- [HKWX11] Yunqing Huang, Ralf Kornhuber, Olof Widlund, and Jinchao Xu, editors. *Domain Decomposition Methods in Science and Engineering XIX*, volume 78 of *Lecture Notes in Computational Science and Engineering*. Springer-Verlag Inc., New York, NY, USA, 2011. CODEN LNCSA6. ISBN 3-642-11303-6 (print), 3-642-11304-4 (e-book). ISSN 1439-7358 (print), 2197-7100 (electronic). LCCN QA402.2 .I58 2011. URL <http://link.springer.com/book/10.1007/978-3-642-11304-8>; <http://www.springerlink.com/content/978-3-642-11304-8>. Papers presented at the 19th International Conference on Domain Decomposition, DD19, hosted by the School of Mathematics and Computational Science of the Xiangtan University and the Hunan Key Laboratory for Computation and Simulation in Science and Engineering and held in Zhanjiajie, China, August 17–22, 2009.

Hiptmair:2008:MSC

- [HKX08] Ralf Hiptmair, Ralf Kornhuber, and Jinchao Xu. MIN-ISYMPIUM 9: Subspace correction methods. In Langer et al. [LDK⁺08], page 381. CODEN LNCSA6. ISBN 3-540-75198-X (print), 3-540-75199-8 (e-book). ISSN 1439-7358 (print), 2197-7100 (electronic). LCCN QA402.2 .I55 2006. URL http://link.springer.com/content/pdf/10.1007/978-3-540-75199-1_47. 17th International Conference on Domain Decomposition Methods held at St. Wolfgang/Strobl, Austria, July 3–7, 2006.

Hochbruck:1999:BTI

- [HL99] Marlis Hochbruck and Christian Lubich. A bunch of time integrators for quantum/classical molecular dynamics. In Deuffhard et al. [DHL⁺99], pages 421–432. CODEN LNCSA6. ISBN 3-540-63242-5 (print), 3-642-58360-1 (e-book). ISSN

1439-7358 (print), 2197-7100 (electronic). LCCN QP517.M65 I56 1999. URL http://link.springer.com/chapter/10.1007/978-3-642-58360-5_24/.

Hauret:2007:TSD

- [HL07a] Patrice Hauret and Patrick Le Tallec. Two-scale Dirichlet–Neumann preconditioners for boundary refinements. In Widlund and Keyes [WK07], pages 447–454. CODEN LNCSA6. ISBN 3-540-34468-3 (print), 3-540-34469-1 (e-book). ISSN 1439-7358 (print), 2197-7100 (electronic). LCCN QA402.2 .I55 2005. URL http://link.springer.com/content/pdf/10.1007/978-3-540-34469-8_56. Proceedings of the *Sixteenth International Conference on Domain Decomposition Methods*, New York City, January 11–15, 2005.

Hetmaniuk:2007:MME

- [HL07b] Ulrich L. Hetmaniuk and Richard B. Lehoucq. Multilevel methods for eigenspace computations in structural dynamics. In Widlund and Keyes [WK07], pages 103–113. CODEN LNCSA6. ISBN 3-540-34468-3 (print), 3-540-34469-1 (e-book). ISSN 1439-7358 (print), 2197-7100 (electronic). LCCN QA402.2 .I55 2005. URL http://link.springer.com/content/pdf/10.1007/978-3-540-34469-8_9. Proceedings of the *Sixteenth International Conference on Domain Decomposition Methods*, New York City, January 11–15, 2005.

Hoppe:2007:MDD

- [HL07c] Ronald H. W. Hoppe and Jin-Fa Lee. MINISYMPOSIUM 4: Domain decomposition methods for electromagnetic field problems. In Widlund and Keyes [WK07], page 255. CODEN LNCSA6. ISBN 3-540-34468-3 (print), 3-540-34469-1 (e-book). ISSN 1439-7358 (print), 2197-7100 (electronic). LCCN QA402.2 .I55 2005. URL http://link.springer.com/content/pdf/10.1007/978-3-540-34469-8_28. Proceedings of the *Sixteenth International Conference on Domain Decomposition Methods*, New York City, January 11–15, 2005.

Hovland:2003:COU

- [HLM⁺03] Paul Hovland, Steven Lee, Lois McInnes, Boyana Norris, and Barry Smith. Challenges and opportunities in using automatic differentiation with object-oriented toolkits for scientific computing. In Biegler et al. [BGHvBW03a], pages 133–147.

CODEN LNCSA6. ISBN 3-540-05045-0 (print), 3-642-55508-X (e-book). ISSN 1439-7358 (print), 2197-7100 (electronic). LCCN QA402.5 .L358 2003. URL http://link.springer.com/content/pdf/10.1007/978-3-642-55508-4_8.

Hecht:2009:NZS

- [HLP09] Frédéric Hecht, Alexei Lozinski, and Olivier Pironneau. Numerical zoom and the Schwarz algorithm. In Bercovier et al. [BGKW09], pages 63–73. CODEN LNCSA6. ISBN 3-642-02676-1 (print), 3-642-02677-X (e-book). ISSN 1439-7358 (print), 2197-7100 (electronic). LCCN QA402.2 .I584 2009. URL http://link.springer.com/content/pdf/10.1007/978-3-642-02677-5_6.

Hu:2000:ELS

- [HLS00] Changqing Hu, Olga Lepsky, and Chi-Wang Shu. The effect of the least square procedure for discontinuous Galerkin methods for Hamilton–Jacobi equations. In Cockburn et al. [CKS00b], pages 343–348. CODEN LNCSA6. ISBN 3-540-66787-3, 3-642-64098-2 (print), 3-642-59721-1 (e-book). ISSN 1439-7358 (print), 2197-7100 (electronic). LCCN TA347.F5 D57 2000. URL http://link.springer.com/chapter/10.1007/978-3-642-59721-3_31/. Papers from the first international symposium on DGM Newport, Rhode Island, USA, May 24–26, 1999.

Herrholz:2014:SCS

- [HLTT14] Evelyn Herrholz, Dirk Lorenz, Gerd Teschke, and Dennis Trede. Sparsity and compressed sensing in inverse problems. In Dahlke et al. [DDG⁺14], pages 365–379. ISBN 3-319-08159-4. LCCN ????. URL http://link.springer.com/chapter/10.1007/978-3-319-08159-5_18/.

Helms:1999:CTP

- [HM99] Volkhard Helms and J. Andrew McCammon. Conformational transitions of proteins from atomistic simulations. In Deuffhard et al. [DHL⁺99], pages 66–77. CODEN LNCSA6. ISBN 3-540-63242-5 (print), 3-642-58360-1 (e-book). ISSN 1439-7358 (print), 2197-7100 (electronic). LCCN QP517.M65 I56 1999. URL http://link.springer.com/chapter/10.1007/978-3-642-58360-5_3/.

Houben:2001:PSS

- [HM01] S. H. M. J. Houben and J. M. Maubach. Periodic steady-state analysis of free-running oscillators. In van Rienen et al. [vRGH01], pages 217–224. CODEN LNCSA6. ISBN 3-540-42173-4 (softcover), 3-642-56470-4 (e-book). ISSN 1439-7358 (print), 2197-7100 (electronic). LCCN TK5 .S35 2001. URL http://link.springer.com/content/pdf/10.1007/978-3-642-56470-3_21. Selected contributions presented at the 3rd International Workshop on Scientific Computing in Electrical Engineering.

Han:2002:SSR

- [HM02] Weimin Han and Xueping Meng. Some studies of the reproducing kernel particle method. In Griebel and Schweitzer [GS02b], pages 193–210. CODEN LNCSA6. ISBN 3-540-43891-2 (print), 3-642-56103-9 (e-book). ISSN 1439-7358 (print), 2197-7100 (electronic). LCCN QA377 .M45 2003. URL http://link.springer.com/content/pdf/10.1007/978-3-642-56103-0_13. Proceedings of a workshop on Meshfree Methods for Partial Differential Equations, Institut für Angewandte Mathematik, Rheinische Friedrich-Wilhelms Universität Bonn, September 11–14, 2001.

Hoffmann:2006:PAC

- [HM06] Karl Heinz Hoffmann and Arnd Meyer, editors. *Parallel Algorithms and Cluster Computing: Implementations, Algorithms and Applications*, volume 52 of *Lecture Notes in Computational Science and Engineering*. Springer-Verlag Inc., New York, NY, USA, 2006. CODEN LNCSA6. ISBN 3-540-33539-0 (print), 3-540-33541-2 (e-book). ISSN 1439-7358 (print), 2197-7100 (electronic). x + 362 pp. LCCN QA76.58 .P358 2006. URL <http://link.springer.com/book/10.1007/3-540-33541-2>.

Hiptmair:2008:SFB

- [HM08] R. Hiptmair and P. Meury. Stabilized FEM-BEM coupling for Maxwell transmission problems. In Ammari [Amm08], pages 1–38. CODEN LNCSA6. ISBN 3-540-73777-4 (print), 3-540-73778-2 (e-book). ISSN 1439-7358 (print), 2197-7100 (electronic). LCCN QC760.4.M37 M63 2008. URL http://link.springer.com/content/pdf/10.1007/978-3-540-73778-0_1.

- Hejranfar:2011:HOA**
- [HM11] Kazem Hejranfar and Mir Hamed Mohafez. High-order accurate numerical solution of incompressible slip flow and heat transfer in microchannels. In Hesthaven and Rønquist [HR11], pages 419–427. CODEN LNCSA6. ISBN 3-642-15336-4 (print), 3-642-15337-2 (e-book). ISSN 1439-7358 (print), 2197-7100 (electronic). LCCN ???? URL http://link.springer.com/content/pdf/10.1007/978-3-642-15337-2_40.
- Hake:2012:LLM**
- [HM12] Johan Hake and Kent-Andre Mardal. Lessons learned in mixed language programming. In Logg et al. [LMW12a], pages 363–381. CODEN LNCSA6. ISBN 3-642-23098-9 (print), 3-642-23099-7 (e-book). ISSN 1439-7358 (print), 2197-7100 (electronic). LCCN ???? URL http://link.springer.com/content/pdf/10.1007/978-3-642-23099-8_19. The software developed by the FEniCS Project is free for all to use and modify (licensed under the GNU (L)GPL), and so is this book.
- Ham:2007:TTS**
- [HMI07] Frank Ham, K. Mattsson, and Gianluca Iaccarino. Towards time-stable and accurate LES on unstructured grids. In Kassinis et al. [KLIM07], pages 235–249. CODEN LNCSA6. ISBN 3-540-34233-8 (print), 3-540-34234-6 (e-book). ISSN 1439-7358 (print), 2197-7100 (electronic). LCCN TA357.5.T87 C66 2007. URL http://link.springer.com/content/pdf/10.1007/978-3-540-34234-2_17. Proceedings of the symposium on *Complex Effects in Large Eddy Simulation* held in Lemesos (Limassol), Cyprus, September 21–24, 2005.
- Henning:2015:MPU**
- [HMP15] Patrick Henning, Philipp Morgenstern, and Daniel Peterseim. Multiscale partition of unity. In Griebel and Schweitzer [GS14], pages 185–204. ISBN 3-319-06898-9. LCCN QA71 .G75 2015; QA377. URL http://link.springer.com/chapter/10.1007/978-3-319-06898-5_10/.
- Hassan:2002:SCP**
- [HMW02] Sergio A. Hassan, Ernest L. Mehler, and Harel Weinstein. Structure calculation of protein segments connecting domains with defined secondary structure: a simulated annealing

Monte Carlo combined with biased scaled collective variables technique. In Schlick and Gan [SG02], pages 197–231. CODEN LNCSA6. ISBN 3-540-43756-8 (print), 3-642-56080-6 (e-book). ISSN 1439-7358 (print), 2197-7100 (electronic). LCCN QP517.M3 A384 2000. URL http://link.springer.com/content/pdf/10.1007/978-3-642-56080-4_9.

Hermans:1999:SSP

- [HMWZ99] Jan Hermans, Geoffrey Mann, Lu Wang, and Li Zhang. Simulation studies of protein-ligand interactions. In Deuffhard et al. [DHL⁺99], pages 129–148. CODEN LNCSA6. ISBN 3-540-63242-5 (print), 3-642-58360-1 (e-book). ISSN 1439-7358 (print), 2197-7100 (electronic). LCCN QP517.M65 I56 1999. URL http://link.springer.com/chapter/10.1007/978-3-642-58360-5_7/.

Heinkenschloss:2005:BNN

- [HN05] Matthias Heinkenschloss and Hoang Nguyen. Balancing Neumann–Neumann methods for elliptic optimal control problems. In Kornhuber et al. [KHP⁺05], pages 589–596. CODEN LNCSA6. ISBN 3-540-22523-4 (print), 3-540-26825-1 (e-book). ISSN 1439-7358 (print), 2197-7100 (electronic). LCCN QA402.2 .I55 2003. URL http://link.springer.com/content/pdf/10.1007/3-540-26825-1_62. Papers from the 15th International Conference on Domain Decomposition, Freie Universität Berlin (FU), Berlin, Germany, July 21–25, 2003.

Huurdeman:1999:MSI

- [HNR99] B. Huurdeman, S. Nagele, V. Reichenberger, and H. Rentz-Reichert. Multigrid solution of the incompressible Navier–Stokes equations and its application to parallel computers. In Bungartz et al. [BDZ99], pages 51–60. CODEN LNCSA6. ISBN 3-540-65730-4 (print), 3-642-60155-3 (e-book). ISSN 1439-7358 (print), 2197-7100 (electronic). LCCN Q183.9.I58 1998. URL http://link.springer.com/chapter/10.1007/978-3-642-60155-2_5/.

Hron:2003:CCT

- [HO03] Jaroslav Hron and Abderrahim Ouazzi. A computational comparison of two FEM solvers for nonlinear incompressible flow. In Bänsch [Bän03], pages 87–109. CODEN LNCSA6. ISBN 3-642-62406-5 (print), 3-642-19014-6 (e-book). ISSN 1439-7358 (print), 2197-7100 (electronic). LCCN

???? URL http://link.springer.com/content/pdf/10.1007/978-3-642-19014-8_5.

Haynes:2014:MOA

- [HO14] Ronald D. Haynes and Benjamin W. Ong. MPI–OpenMP algorithms for the parallel space–time solution of time dependent PDEs. In Erhel et al. [EGH⁺14], pages 179–187. ISBN 3-319-05788-X (paperback), 3-319-05789-8 (e-book). ISSN 1439-7358 (print), 2197-7100 (electronic). LCCN QA71-90. URL http://link.springer.com/chapter/10.1007/978-3-319-05789-7_14/.

Hoffman:2002:DSM

- [Hof02] Johan Hoffman. Dynamic subgrid modeling for scalar convection-diffusion-reaction equations with fractal coefficients. In Barth et al. [BCH02], pages 319–330. CODEN LNCSA6. ISBN 3-540-42420-2 (print), 3-642-56205-1 (e-book). ISSN 1439-7358 (print), 2197-7100 (electronic). LCCN QA403.3 .M85 2002. URL http://link.springer.com/content/pdf/10.1007/978-3-642-56205-1_9. Papers from the Yosemite Educational Symposium (YES), Yosemite valley, California, Fall 2000.

Holtz:2011:DRS

- [Hol11a] Markus Holtz. Dimension reduction and smoothing. In *Sparse Grid Quadrature in High Dimensions with Applications in Finance and Insurance* [Hol11g], pages 77–100. CODEN LNCSA6. ISBN 3-642-16003-4 (print), 3-642-16004-2 (e-book). ISSN 1439-7358 (print), 2197-7100 (electronic). LCCN QA297 .H5886 2011. URL http://link.springer.com/content/pdf/10.1007/978-3-642-16004-2_5.

Holtz:2011:DWD

- [Hol11b] Markus Holtz. Dimension-wise decompositions. In *Sparse Grid Quadrature in High Dimensions with Applications in Finance and Insurance* [Hol11g], pages 11–27. CODEN LNCSA6. ISBN 3-642-16003-4 (print), 3-642-16004-2 (e-book). ISSN 1439-7358 (print), 2197-7100 (electronic). LCCN QA297 .H5886 2011. URL http://link.springer.com/content/pdf/10.1007/978-3-642-16004-2_2.

Holtz:2011:DWQ

- [Hol11c] Markus Holtz. Dimension-wise quadrature. In *Sparse Grid Quadrature in High Dimensions with Applications in Finance*

and Insurance [Hol11g], pages 29–50. CODEN LNCSA6. ISBN 3-642-16003-4 (print), 3-642-16004-2 (e-book). ISSN 1439-7358 (print), 2197-7100 (electronic). LCCN QA297 .H5886 2011. URL http://link.springer.com/content/pdf/10.1007/978-3-642-16004-2_3.

Holtz:2011:FM

- [Hol11d] Markus Holtz. Front matter. In *Sparse Grid Quadrature in High Dimensions with Applications in Finance and Insurance* [Hol11g], pages i–viii. CODEN LNCSA6. ISBN 3-642-16003-4 (print), 3-642-16004-2 (e-book). ISSN 1439-7358 (print), 2197-7100 (electronic). LCCN QA297 .H5886 2011. URL <http://link.springer.com/content/pdf/bfm:978-3-642-16004-2/1>.

Holtz:2011:I

- [Hol11e] Markus Holtz. Introduction. In *Sparse Grid Quadrature in High Dimensions with Applications in Finance and Insurance* [Hol11g], pages 1–9. CODEN LNCSA6. ISBN 3-642-16003-4 (print), 3-642-16004-2 (e-book). ISSN 1439-7358 (print), 2197-7100 (electronic). LCCN QA297 .H5886 2011. URL http://link.springer.com/content/pdf/10.1007/978-3-642-16004-2_1.

Holtz:2011:SGQa

- [Hol11f] Markus Holtz. Sparse grid quadrature. In *Sparse Grid Quadrature in High Dimensions with Applications in Finance and Insurance* [Hol11g], pages 51–76. CODEN LNCSA6. ISBN 3-642-16003-4 (print), 3-642-16004-2 (e-book). ISSN 1439-7358 (print), 2197-7100 (electronic). LCCN QA297 .H5886 2011. URL http://link.springer.com/content/pdf/10.1007/978-3-642-16004-2_4.

Holtz:2011:SGQ

- [Hol11g] Markus Holtz. *Sparse Grid Quadrature in High Dimensions with Applications in Finance and Insurance*, volume 77 of *Lecture Notes in Computational Science and Engineering*. Springer-Verlag Inc., New York, NY, USA, 2011. CODEN LNCSA6. ISBN 3-642-16003-4 (print), 3-642-16004-2 (e-book). ISSN 1439-7358 (print), 2197-7100 (electronic). viii + 182 pp. LCCN QA297 .H5886 2011. URL <http://link.springer.com/book/10.1007/978-3-642-16004-2>; <http://www.springerlink.com/content/978-3-642-16004-2>.

Holtz:2011:SC

- [Hol11h] Markus Holtz. Summary and conclusions. In *Sparse Grid Quadrature in High Dimensions with Applications in Finance and Insurance* [Hol11g], pages 153–156. CODEN LNCSA6. ISBN 3-642-16003-4 (print), 3-642-16004-2 (e-book). ISSN 1439-7358 (print), 2197-7100 (electronic). LCCN QA297.H5886 2011. URL http://link.springer.com/content/pdf/10.1007/978-3-642-16004-2_7.

Holtz:2011:VA

- [Hol11i] Markus Holtz. Validation and applications. In *Sparse Grid Quadrature in High Dimensions with Applications in Finance and Insurance* [Hol11g], pages 101–151. CODEN LNCSA6. ISBN 3-642-16003-4 (print), 3-642-16004-2 (e-book). ISSN 1439-7358 (print), 2197-7100 (electronic). LCCN QA297.H5886 2011. URL http://link.springer.com/content/pdf/10.1007/978-3-642-16004-2_6.

Hoogendoorn:2003:WBM

- [Hoo03] Serge P. Hoogendoorn. Walker behaviour modelling by differential games. In Emmerich et al. [ENS03], page ?? CODEN LNCSA6. ISBN 3-540-40367-1. ISSN 1439-7358 (print), 2197-7100 (electronic). LCCN QC173.4.I57 I57 2003. URL <http://www.loc.gov/catdir/enhancements/fy0818/2003060231-d.html>. Papers from the workshop on “Computational Physics of Transport and Interfacial Dynamics”, Dresden, February 25–March 8, 2002.

Hoppe:2014:OPC

- [Hop14] Ronald Hoppe, editor. *Optimization with PDE Constraints: ESF Networking Program 'OPTPDE'*, volume 101 of *Lecture Notes in Computational Science and Engineering*. Springer-Verlag Inc., New York, NY, USA, 2014. ISBN 3-319-08024-5 (paperback), 3-319-08025-3 (e-book). ISSN 1439-7358 (print), 2197-7100 (electronic). xii + 402 + 115 pp. LCCN QA71-90; QA377. URL <http://www.springerlink.com/content/978-3-319-08025-3>.

Howell:2005:PAI

- [How05] Louis H. Howell. A parallel AMR implementation of the discrete ordinates method for radiation transport. In Plewa et al. [PLW05], pages 255–270. CODEN LNCSA6. ISBN

3-540-21147-0 (print), 3-540-27039-6 (e-book). ISSN 1439-7358 (print), 2197-7100 (electronic). LCCN QA377 .C46 2003. URL http://link.springer.com/content/pdf/10.1007/3-540-27039-6_17.

Heinrich:2006:NFE

- [HP06] Bernd Heinrich and Kornelia Pönitz. Nitsche finite element method for elliptic problems with complicated data. In Hoffmann and Meyer [HM06], pages 87–104. CODEN LNCSA6. ISBN 3-540-33539-0 (print), 3-540-33541-2 (e-book). ISSN 1439-7358 (print), 2197-7100 (electronic). LCCN QA76.58 .P358 2006. URL http://link.springer.com/content/pdf/10.1007/3-540-33541-2_6.

Hiptmair:2009:MPW

- [HP09] Ralf Hiptmair and Ilaria Perugia. Mixed plane wave discontinuous Galerkin methods. In Bercovier et al. [BGKW09], pages 51–62. CODEN LNCSA6. ISBN 3-642-02676-1 (print), 3-642-02677-X (e-book). ISSN 1439-7358 (print), 2197-7100 (electronic). LCCN QA402.2 .I584 2009. URL http://link.springer.com/content/pdf/10.1007/978-3-642-02677-5_5.

Hill:2007:LES

- [HPP07] D. J. Hill, C. Pantano, and D. I. Pullin. Large-eddy simulation of Richtmyer–Meshkov instability. In Kassinos et al. [KLIM07], pages 263–271. CODEN LNCSA6. ISBN 3-540-34233-8 (print), 3-540-34234-6 (e-book). ISSN 1439-7358 (print), 2197-7100 (electronic). LCCN TA357.5.T87 C66 2007. URL http://link.springer.com/content/pdf/10.1007/978-3-540-34234-2_19. Proceedings of the symposium on *Complex Effects in Large Eddy Simulation* held in Lemesos (Limassol), Cyprus, September 21–24, 2005.

Harbrecht:2013:MQE

- [HPS13] Helmut Harbrecht, Michael Peters, and Markus Siebenmorgen. On multilevel quadrature for elliptic stochastic partial differential equations. In Garcke and Griebel [GG13], pages 161–179. CODEN LNCSA6. ISBN 3-642-31702-2 (print), 3-642-31703-0 (e-book). ISSN 1439-7358 (print), 2197-7100 (electronic). LCCN ???? URL http://link.springer.com/content/pdf/10.1007/978-3-642-31703-3_8. Proceedings of workshop in Bonn, Germany, from May 16–20, 2011.

Heinkenschloss:2008:ISQ

- [HR08] Matthias Heinkenschloss and Denis Ridzal. Integration of sequential quadratic programming and domain decomposition methods for nonlinear optimal control problems. In Langer et al. [LDK⁺08], pages 69–80. CODEN LNCSA6. ISBN 3-540-75198-X (print), 3-540-75199-8 (e-book). ISSN 1439-7358 (print), 2197-7100 (electronic). LCCN QA402.2 .I55 2006. URL http://link.springer.com/content/pdf/10.1007/978-3-540-75199-1_6. 17th International Conference on Domain Decomposition Methods held at St. Wolfgang/Strobl, Austria, July 3–7, 2006.

Hannot:2010:NME

- [HR10] S. D. A. Hannot and D. J. Rixen. Numerical modeling of the electromechanical interaction in MEMS. In Koren and Vuik [KV10], pages 315–342. CODEN LNCSA6. ISBN 3-642-03343-1 (print), 3-642-03344-X (e-book). ISSN 1439-7358 (print), 2197-7100 (electronic). LCCN Q183.9 .A35 2010. URL http://link.springer.com/content/pdf/10.1007/978-3-642-03344-5_11.

Hesthaven:2011:SHO

- [HR11] Jan S. Hesthaven and Einar M. Rønquist, editors. *Spectral and High Order Methods for Partial Differential Equations: Selected papers from the ICOSAHOM '09 conference, June 22–26, Trondheim, Norway*, volume 76 of *Lecture Notes in Computational Science and Engineering*. Springer-Verlag Inc., New York, NY, USA, 2011. CODEN LNCSA6. ISBN 3-642-15336-4 (print), 3-642-15337-2 (e-book). ISSN 1439-7358 (print), 2197-7100 (electronic). LCCN ????? URL <http://link.springer.com/book/10.1007/978-3-642-15337-2>; <http://www.springerlink.com/content/978-3-642-15337-2>.

Haxhimali:2014:DMW

- [HR14] Tomorr Haxhimali and Robert E. Rudd. Diffusivity of mixtures in warm dense matter regime. In Graziani et al. [GDRT14b], pages 235–263. ISBN 3-319-04912-7. ISSN 1439-7358 (print), 2197-7100 (electronic). LCCN QA71-90. URL http://link.springer.com/chapter/10.1007/978-3-319-04912-0_9/.

Halfmann:2002:CEW

- [HRGD02] A. Halfmann, E. Rank, M. Glück, and M. Durst. Computational engineering for wind-exposed thin-walled structures. In Breuer et al. [BDZ02], pages 63–70. CODEN LNCSA6. ISBN 3-540-42946-8 (print), 3-642-55919-0 (e-book). ISSN 1439-7358 (print), 2197-7100 (electronic). LCCN Q183.9 .I58 2001. URL http://link.springer.com/content/pdf/10.1007/978-3-642-55919-8_7.

Herrmann:2003:ESD

- [HS03] Hans J. Herrmann and Gerd Sauermann. Evolution and shapes of dunes. In Emmerich et al. [ENS03], page ?? CODEN LNCSA6. ISBN 3-540-40367-1. ISSN 1439-7358 (print), 2197-7100 (electronic). LCCN QC173.4.I57 I57 2003. URL <http://www.loc.gov/catdir/enhancements/fy0818/2003060231-d.html>. Papers from the workshop on “Computational Physics of Transport and Interfacial Dynamics”, Dresden, February 25–March 8, 2002.

Hossain:2006:CSJ

- [HS06a] Shahadat Hossain and Trond Steihaug. Computing sparse Jacobian matrices optimally. In Bücker et al. [BCH⁺06], pages 77–87. CODEN LNCSA6. ISBN 3-540-28403-6 (print), 3-540-28438-9 (e-book). ISSN 1439-7358 (print), 2197-7100 (electronic). LCCN QA304 .I58 2006. URL http://link.springer.com/content/pdf/10.1007/3-540-28438-9_7. Proceedings of the Fourth International Conference on Automatic Differentiation, July 20–23, Chicago, Illinois.

Huisinga:2006:MDE

- [HS06b] Wilhelm Huisinga and Bernd Schmidt. Metastability and dominant eigenvalues of transfer operators. In Leimkuhler et al. [LCE⁺06], pages 167–182. CODEN LNCSA6. ISBN 3-540-25542-7 (print), 3-540-31618-3 (e-book). ISSN 1439-7358 (print), 2197-7100 (electronic). LCCN QP517.M3 N49 2006. URL http://link.springer.com/content/pdf/10.1007/3-540-31618-3_11. Papers from the fourth edition of *Algorithms for Macromolecular Modelling*, Leicester, UK August 2004.

Halpern:2008:OQO

- [HS08] Laurence Halpern and Jérémie Szeftel. Optimized and quasi-optimal Schwarz waveform relaxation for the one dimen-

sional Schrödinger equation. In Langer et al. [LDK⁺08], pages 221–228. CODEN LNCSA6. ISBN 3-540-75198-X (print), 3-540-75199-8 (e-book). ISSN 1439-7358 (print), 2197-7100 (electronic). LCCN QA402.2 .I55 2006. URL http://link.springer.com/content/pdf/10.1007/978-3-540-75199-1_24. 17th International Conference on Domain Decomposition Methods held at St. Wolfgang/Strobl, Austria, July 3–7, 2006.

Hackbusch:2014:TSH

- [HS14] Wolfgang Hackbusch and Reinhold Schneider. Tensor spaces and hierarchical tensor representations. In Dahlke et al. [DDG⁺14], pages 237–261. ISBN 3-319-08159-4. LCCN ???? URL http://link.springer.com/chapter/10.1007/978-3-319-08159-5_12/.

Hojjat:2010:FSI

- [HSGI10] M. Hojjat, E. Stavropoulou, T. Gallinger, and U. Israel. Fluid-structure interaction in the context of shape optimization and computational wind engineering. In Bungartz et al. [BMS10], pages 351–381. CODEN LNCSA6. ISBN 3-642-14205-2 (print), 3-642-14206-0 (e-book). ISSN 1439-7358 (print), 2197-7100 (electronic). LCCN TA357.5.F58 F586b 2010. URL http://link.springer.com/content/pdf/10.1007/978-3-642-14206-2_13. Selected contributions from the *First International Workshop on Computational Engineering — special topic Fluid-Structure Interactions* held in Herrsching, Germany, in October 2009.

Henze:2002:CFA

- [HSM02] A. Henze, W. Schröder, and M. Meinke. Computation of flows around space configurations. In Breuer et al. [BDZ02], pages 131–138. CODEN LNCSA6. ISBN 3-540-42946-8 (print), 3-642-55919-0 (e-book). ISSN 1439-7358 (print), 2197-7100 (electronic). LCCN Q183.9 .I58 2001. URL http://link.springer.com/content/pdf/10.1007/978-3-642-55919-8_15.

Hashimoto:2011:CTP

- [HSMS11] Tomohisa Hashimoto, Keiichi Saito, Koji Morinishi, and Nobuyuki Satofuka. Computation of two-phase flow in flip-chip packaging using level set method. In Tromeur-Dervout et al. [TDBEE11], pages 145–152. CODEN LNCSA6. ISBN 3-642-14437-3 (print), 3-642-14438-1 (e-book). ISSN 1439-7358

(print), 2197-7100 (electronic). LCCN ???? URL http://link.springer.com/content/pdf/10.1007/978-3-642-14438-7_15. Proceedings of the twentieth meeting, Parallel CFD 2008, held May 19–22, 2008 in Lyon, France.

Holst:2013:AFE

- [HSZ13a] Michael Holst, Ryan Szypowski, and Yunrong Zhu. Adaptive finite element methods with inexact solvers for the nonlinear Poisson–Boltzmann equation. In Bank [Ban13], pages 167–174. ISBN 3-642-35274-X (hardcover), 3-642-35275-8 (e-book). ISSN 1439-7358 (print), 2197-7100 (electronic). LCCN QA402.2 .I58 2011. URL http://link.springer.com/chapter/10.1007/978-3-642-35275-1_18/.

Hu:2013:SPT

- [HSZ13b] Qiya Hu, Shi Shu, and Jun Zou. A substructuring preconditioner for three-dimensional Maxwell’s equations. In Bank [Ban13], pages 73–84. ISBN 3-642-35274-X (hardcover), 3-642-35275-8 (e-book). ISSN 1439-7358 (print), 2197-7100 (electronic). LCCN QA402.2 .I58 2011. URL http://link.springer.com/chapter/10.1007/978-3-642-35275-1_7/.

Hron:2006:MFM

- [HT06] Jaroslav Hron and Stefan Turek. A monolithic FEM/ multi-grid solver for an ALE formulation of fluid-structure interaction with applications in biomechanics. In Bungartz and Schäfer [BS06], pages 146–170. CODEN LNCSA6. ISBN 3-540-34595-7 (print), 3-540-34596-5 (e-book). ISSN 1439-7358 (print), 2197-7100 (electronic). LCCN TA357.5.F58 F586 200. URL http://link.springer.com/content/pdf/10.1007/3-540-34596-5_7. Proceedings of a workshop on fluid-structure interactions held in Hohenwart, Germany, in October 2005.

Hu:2008:NKM

- [Hu08] Qiya Hu. A new kind of multilevel solver for second order Steklov–Poincaré operators. In Langer et al. [LDK⁺08], pages 391–398. CODEN LNCSA6. ISBN 3-540-75198-X (print), 3-540-75199-8 (e-book). ISSN 1439-7358 (print), 2197-7100 (electronic). LCCN QA402.2 .I55 2006. URL http://link.springer.com/content/pdf/10.1007/978-3-540-75199-1_49. 17th International Conference on Domain Decomposition Methods held at St. Wolfgang/Strobl, Austria, July 3–7, 2006.

Hubeny:2006:RTA

- [Hub06] I. Hubeny. Radiative transfer in astrophysical applications. In Graziani [Gra06], pages 15–33. CODEN LNCSA6. ISBN 3-540-28122-3 (print), 3-540-28125-8 (e-book). ISSN 1439-7358 (print), 2197-7100 (electronic). LCCN MLCM 2006/40189 (Q); QC793.3.T7 C66 2006. URL http://link.springer.com/content/pdf/10.1007/3-540-28125-8_2.

Hutter:2004:LSD

- [Hut04] Jürg Hutter. Large scale density functional calculations. In Attinger and Koumoutsakos [AK04], pages 195–204. CODEN LNCSA6. ISBN 3-540-21180-2 (print), 3-642-18756-0 (e-book). ISSN 1439-7358 (print), 2197-7100 (electronic). LCCN TA342 .M85 2004. URL http://link.springer.com/content/pdf/10.1007/978-3-642-18756-8_14. Proceedings of a Summer Program in Multi-Scale Modelling and Simulation held in Lugano, Switzerland, between August 4th and 30th, 2003.

Hinze:2005:POD

- [HV05] Michael Hinze and Stefan Volkwein. Proper orthogonal decomposition surrogate models for nonlinear dynamical systems: Error estimates and suboptimal control. In Benner et al. [BMS05c], pages 261–306. CODEN LNCSA6. ISBN 3-540-24545-6 (print), 3-540-27909-1 (e-book). ISSN 1439-7358 (print), 2197-7100 (electronic). LCCN TA347.C68 D56 2005. URL http://link.springer.com/content/pdf/10.1007/3-540-27909-1_10.

Houzeaux:2009:EPC

- [HVG09] G. Houzeaux, M. Vazquez, R. Grima, and H. Calmet. Experience in parallel computational mechanics on MareNostrum. In Tuncer et al. [TGEM09], pages 19–28. CODEN LNCSA6. ISBN 3-540-92743-3 (print), 3-540-92744-1 (e-book). ISSN 1439-7358 (print), 2197-7100 (electronic). LCCN ????. URL http://link.springer.com/content/pdf/10.1007/978-3-540-92744-0_3. Parallel CFD 2007 was held in Antalya, Turkey, from May 21 to 24, 2007.

Hoel:2012:AMM

- [HvS12] Håkon Hoel and Erik von Schwerin. Adaptive multilevel Monte Carlo simulation. In Engquist et al. [ERT12], pages

217–234. CODEN LNCSA6. ISBN 3-642-21942-X (print), 3-642-21943-8 (e-book). ISSN 1439-7358 (print), 2197-7100 (electronic). LCCN ???? URL http://link.springer.com/content/pdf/10.1007/978-3-642-21943-6_10.

Houzeaux:2011:HMO

- [HVSC11] G. Houzeaux, M. Vázquez, X. Sáez, and J. M. Cela. Hybrid MPI–OpenMP performance in massively parallel computational fluid dynamics. In Tromeur-Dervout et al. [TDBEE11], pages 293–297. CODEN LNCSA6. ISBN 3-642-14437-3 (print), 3-642-14438-1 (e-book). ISSN 1439-7358 (print), 2197-7100 (electronic). LCCN ???? URL http://link.springer.com/content/pdf/10.1007/978-3-642-14438-7_31. Proceedings of the twentieth meeting, Parallel CFD 2008, held May 19–22, 2008 in Lyon, France.

Hackbusch:1998:MMV

- [HW98] Wolfgang Hackbusch and Gabriel Wittum, editors. *Multi-grid Methods V: Proceedings of the Fifth European Multi-grid Conference held in Stuttgart, Germany, October 1–4, 1996*, volume 3 of *Lecture Notes in Computational Science and Engineering*. Springer-Verlag Inc., New York, NY, USA, 1998. CODEN LNCSA6. ISBN 3-540-63133-X (soft-cover), 3-642-58734-8 (e-book). ISSN 1439-7358 (print), 2197-7100 (electronic). LCCN QA377 .E94 1996. URL <http://link.springer.com/book/10.1007/978-3-642-58734-4>; <http://www.springerlink.com/content/978-3-642-58734-4>.

Horn:2002:RSF

- [HW02] A. Horn and G. Wachutka. Realistic step flow model for orientation-dependent wet etching. In Breuer et al. [BDZ02], pages 369–376. CODEN LNCSA6. ISBN 3-540-42946-8 (print), 3-642-55919-0 (e-book). ISSN 1439-7358 (print), 2197-7100 (electronic). LCCN Q183.9 .I58 2001. URL http://link.springer.com/content/pdf/10.1007/978-3-642-55919-8_40.

Huck:2015:STO

- [HWB15] Alexander Hück, Johannes Willkomm, and Christian Bischof. Source transformation for the optimized utilization of the Matlab runtime system for automatic differentiation. In Mehl et al. [MBS15], pages 115–131. ISBN 3-319-22996-6, 3-319-

22997-4 (e-book). LCCN QA71-90; TA329. URL http://link.springer.com/chapter/10.1007/978-3-319-22997-3_7/.

Hoffmann:1999:GSF

- [HWM99] K.-H. Hoffmann, B. Wagner, and A. Münch. On the generation and spreading of finger' instabilities in film coating processes. In Bungartz et al. [BDZ99], pages 245–254. CODEN LNCSA6. ISBN 3-540-65730-4 (print), 3-642-60155-3 (e-book). ISSN 1439-7358 (print), 2197-7100 (electronic). LCCN Q183.9.I58 1998. URL http://link.springer.com/chapter/10.1007/978-3-642-60155-2_21/.

Huang:2011:NPE

- [HWYY11] Yunqing Huang, Huayi Wei, Wei Yang, and Nianyu Yi. A new a posteriori error estimate for adaptive finite element methods. In Huang et al. [HKWX11], pages 63–74. CODEN LNCSA6. ISBN 3-642-11303-6 (print), 3-642-11304-4 (e-book). ISSN 1439-7358 (print), 2197-7100 (electronic). LCCN QA402.2 .I58 2011. URL http://link.springer.com/content/pdf/10.1007/978-3-642-11304-8_6. Papers presented at the 19th International Conference on Domain Decomposition, DD19, hosted by the School of Mathematics and Computational Science of the Xiangtan University and the Hunan Key Laboratory for Computation and Simulation in Science and Engineering and held in Zhanjiajie, China, August 17–22, 2009.

iceta:2009:MDD

- [IAD09] Damien Iceta, Pierre Alart, and David Dureisseix. A multi-level domain decomposition solver suited to nonsmooth mechanical problems. In Bercovier et al. [BGKW09], pages 113–120. CODEN LNCSA6. ISBN 3-642-02676-1 (print), 3-642-02677-X (e-book). ISSN 1439-7358 (print), 2197-7100 (electronic). LCCN QA402.2 .I584 2009. URL http://link.springer.com/content/pdf/10.1007/978-3-642-02677-5_10.

Issa:2011:HHI

- [IDR+11] Réza Issa, Fabien Decung, Emile Razafindrakoto, Eun-Sug Lee, and Charles Moulinec. HPC for hydraulics and industrial environmental flow simulations. In Tromeur-Dervout et al. [TDBEE11], pages 377–387. CODEN LNCSA6. ISBN 3-642-14437-3 (print), 3-642-14438-1 (e-book). ISSN 1439-7358

(print), 2197-7100 (electronic). LCCN ???? URL http://link.springer.com/content/pdf/10.1007/978-3-642-14438-7_40. Proceedings of the twentieth meeting, Parallel CFD 2008, held May 19–22, 2008 in Lyon, France.

Iso:2002:NCI

- [IF02] Yuusuke Iso and Hiroshi Fujiwara. Numerical computations for ill-conditioned problems by multiple-precision systems. In Babuška et al. [BCM02], pages 185–194. CODEN LNCSA6. ISBN 3-540-42399-0 (print), 3-642-56288-4 (e-book). ISSN 1439-7358 (print), 2197-7100 (electronic). LCCN QA808.2 .I59 2000. URL http://link.springer.com/content/pdf/10.1007/978-3-642-56288-4_13.

Iaccarino:2007:CGA

- [IH07] Gianluca Iaccarino and Frank Ham. LES on Cartesian grids with anisotropic refinement. In Kassinos et al. [KLIM07], pages 219–233. CODEN LNCSA6. ISBN 3-540-34233-8 (print), 3-540-34234-6 (e-book). ISSN 1439-7358 (print), 2197-7100 (electronic). LCCN TA357.5.T87 C66 2007. URL http://link.springer.com/content/pdf/10.1007/978-3-540-34234-2_16. Proceedings of the symposium on *Complex Effects in Large Eddy Simulation* held in Lemesos (Limassol), Cyprus, September 21–24, 2005.

Izaguirre:2002:OIV

- [IMM⁺02] Jesús A. Izaguirre, Qun Ma, Thierry Matthey, Jeremiah Willcock, and Thomas Slabach. Overcoming instabilities in Verlet-I/r-RESPA with the mollified impulse method. In Schlick and Gan [SG02], pages 146–174. CODEN LNCSA6. ISBN 3-540-43756-8 (print), 3-642-56080-6 (e-book). ISSN 1439-7358 (print), 2197-7100 (electronic). LCCN QP517.M3 A384 2000. URL http://link.springer.com/content/pdf/10.1007/978-3-642-56080-4_7.

Ipopa:2009:RDD

- [IS09] Mohamed Ipopa and Taoufik Sassi. A Robin domain decomposition algorithm for contact problems: Convergence results. In Bercovier et al. [BGKW09], pages 145–152. CODEN LNCSA6. ISBN 3-642-02676-1 (print), 3-642-02677-X (e-book). ISSN 1439-7358 (print), 2197-7100 (electronic). LCCN QA402.2 .I584 2009. URL http://link.springer.com/content/pdf/10.1007/978-3-642-02677-5_14.

Izrailev:1999:SMD

- [ISI⁺99] Sergei Izrailev, Sergey Stepaniants, Barry Isralewitz, Dorina Kosztin, and Hui Lu. Steered molecular dynamics. In Deuffhard et al. [DHL⁺99], pages 39–65. CODEN LNCSA6. ISBN 3-540-63242-5 (print), 3-642-58360-1 (e-book). ISSN 1439-7358 (print), 2197-7100 (electronic). LCCN QP517.M65 I56 1999. URL http://link.springer.com/chapter/10.1007/978-3-642-58360-5_2/.

Iske:2004:ADS

- [Isk04a] Armin Iske. Algorithms and data structures. In *Multiresolution Methods in Scattered Data Modelling* [Isk04f], pages 7–30. CODEN LNCSA6. ISBN 3-540-20479-2 (print), 3-642-18754-4 (e-book). ISSN 1439-7358 (print), 2197-7100 (electronic). LCCN QA76.9.D35 I85 2004. URL http://link.springer.com/content/pdf/10.1007/978-3-642-18754-4_2.

Iske:2004:FM

- [Isk04b] Armin Iske. Front matter. In *Multiresolution Methods in Scattered Data Modelling* [Isk04f], pages i–xii. CODEN LNCSA6. ISBN 3-540-20479-2 (print), 3-642-18754-4 (e-book). ISSN 1439-7358 (print), 2197-7100 (electronic). LCCN QA76.9.D35 I85 2004. URL <http://link.springer.com/content/pdf/bfm:978-3-642-18754-4/1>.

Iske:2004:I

- [Isk04c] Armin Iske. Introduction. In *Multiresolution Methods in Scattered Data Modelling* [Isk04f], pages 1–6. CODEN LNCSA6. ISBN 3-540-20479-2 (print), 3-642-18754-4 (e-book). ISSN 1439-7358 (print), 2197-7100 (electronic). LCCN QA76.9.D35 I85 2004. URL http://link.springer.com/content/pdf/10.1007/978-3-642-18754-4_1.

Iske:2004:MMT

- [Isk04d] Armin Iske. Meshfree methods for transport equations. In *Multiresolution Methods in Scattered Data Modelling* [Isk04f], pages 143–169. CODEN LNCSA6. ISBN 3-540-20479-2 (print), 3-642-18754-4 (e-book). ISSN 1439-7358 (print), 2197-7100 (electronic). LCCN QA76.9.D35 I85 2004. URL http://link.springer.com/content/pdf/10.1007/978-3-642-18754-4_6.

Iske:2004:MAS

- [Isk04e] Armin Iske. Multilevel approximation schemes. In *Multiresolution Methods in Scattered Data Modelling* [Isk04f], pages 127–141. CODEN LNCSA6. ISBN 3-540-20479-2 (print), 3-642-18754-4 (e-book). ISSN 1439-7358 (print), 2197-7100 (electronic). LCCN QA76.9.D35 I85 2004. URL http://link.springer.com/content/pdf/10.1007/978-3-642-18754-4_5.

Iske:2004:MMS

- [Isk04f] Armin Iske. *Multiresolution Methods in Scattered Data Modelling*, volume 37 of *Lecture Notes in Computational Science and Engineering*. Springer-Verlag Inc., New York, NY, USA, 2004. CODEN LNCSA6. ISBN 3-540-20479-2 (print), 3-642-18754-4 (e-book). ISSN 1439-7358 (print), 2197-7100 (electronic). xii + 182 pp. LCCN QA76.9.D35 I85 2004. URL <http://link.springer.com/book/10.1007/978-3-642-18754-4>; <http://www.springerlink.com/content/978-3-642-18754-4>.

Iske:2004:RBF

- [Isk04g] Armin Iske. Radial basis functions. In *Multiresolution Methods in Scattered Data Modelling* [Isk04f], pages 31–65. CODEN LNCSA6. ISBN 3-540-20479-2 (print), 3-642-18754-4 (e-book). ISSN 1439-7358 (print), 2197-7100 (electronic). LCCN QA76.9.D35 I85 2004. URL http://link.springer.com/content/pdf/10.1007/978-3-642-18754-4_3.

Iske:2004:TA

- [Isk04h] Armin Iske. Thinning algorithms. In *Multiresolution Methods in Scattered Data Modelling* [Isk04f], pages 67–125. CODEN LNCSA6. ISBN 3-540-20479-2 (print), 3-642-18754-4 (e-book). ISSN 1439-7358 (print), 2197-7100 (electronic). LCCN QA76.9.D35 I85 2004. URL http://link.springer.com/content/pdf/10.1007/978-3-642-18754-4_4.

Ilgaz:2009:PCD

- [IT09a] Murat Ilgaz and Ismail H. Tuncer. Parallel computation of 3-D viscous flows on hybrid grids. In Tuncer et al. [TGEM09], pages 67–74. CODEN LNCSA6. ISBN 3-540-92743-3 (print), 3-540-92744-1 (e-book). ISSN 1439-7358 (print), 2197-7100 (electronic). LCCN ????. URL <http://link.springer.com/>

content/pdf/10.1007/978-3-540-92744-0_8. Parallel CFD 2007 was held in Antalya, Turkey, from May 21 to 24, 2007.

Ilgaz:2009:PIG

- [IT09b] Murat Ilgaz and Ismail H. Tuncer. Parallel implementation of a gas-kinetic BGK method on unstructured grids for 3-D inviscid missile flows. In Tuncer et al. [TGEM09], pages 449–456. CODEN LNCSA6. ISBN 3-540-92743-3 (print), 3-540-92744-1 (e-book). ISSN 1439-7358 (print), 2197-7100 (electronic). LCCN ????. URL http://link.springer.com/content/pdf/10.1007/978-3-540-92744-0_56. Parallel CFD 2007 was held in Antalya, Turkey, from May 21 to 24, 2007.

Im:2011:AAR

- [IWK⁺11] Dong-Kyun Im, Seong-Yong Wie, Eugene Kim, Jang-Hyuk Kwon, Duck-Joo Lee, and Ki-Hoon Chung. Aerodynamic analysis of rotor blades using overset grid with parallel computation. In Tromeur-Dervout et al. [TDBEE11], pages 101–110. CODEN LNCSA6. ISBN 3-642-14437-3 (print), 3-642-14438-1 (e-book). ISSN 1439-7358 (print), 2197-7100 (electronic). LCCN ????. URL http://link.springer.com/content/pdf/10.1007/978-3-642-14438-7_10. Proceedings of the twentieth meeting, Parallel CFD 2008, held May 19–22, 2008 in Lyon, France.

Yoshida:2002:NFM

- [iYN02] Ken ichi Yoshida and Naoshi Nishimura. A new fast multipole boundary integral equation method in elastostatic crack problems in 3D. In Babuška et al. [BCM02], pages 271–287. CODEN LNCSA6. ISBN 3-540-42399-0 (print), 3-642-56288-4 (e-book). ISSN 1439-7358 (print), 2197-7100 (electronic). LCCN QA808.2 .I59 2000. URL http://link.springer.com/content/pdf/10.1007/978-3-642-56288-4_19.

Izvekov:1999:PMC

- [Izv99] Sergiy V. Izvekov. Polarons of molecular crystal model by nonlocal dynamical coherent potential method. In Deuffhard et al. [DHL⁺99], pages 442–458. CODEN LNCSA6. ISBN 3-540-63242-5 (print), 3-642-58360-1 (e-book). ISSN 1439-7358 (print), 2197-7100 (electronic). LCCN QP517.M65 I56 1999. URL http://link.springer.com/chapter/10.1007/978-3-642-58360-5_26/.

Jacob:2014:ERS

- [Jac14] Riko Jacob. Efficient regular sparse grid hierarchization by a dynamic memory layout. In Garcke and Pflüger [GP14], pages 195–219. ISBN 3-319-04536-9 (paperback), 3-319-04537-7 (e-book). LCCN QA188 .S63 2013. URL http://link.springer.com/chapter/10.1007/978-3-319-04537-5_8/.

Jarzynski:2002:ENF

- [Jar02] C. Jarzynski. Equilibrium and nonequilibrium foundations of free energy computational methods. In Schlick and Gan [SG02], pages 287–303. CODEN LNCSA6. ISBN 3-540-43756-8 (print), 3-642-56080-6 (e-book). ISSN 1439-7358 (print), 2197-7100 (electronic). LCCN QP517.M3 A384 2000. URL http://link.springer.com/content/pdf/10.1007/978-3-642-56080-4_12.

Jiang:2007:NSF

- [JB07] Bin Jiang and John C. Bruch, Jr. Numerical simulation of free seepage flow on non-matching grids. In Widlund and Keyes [WK07], pages 603–610. CODEN LNCSA6. ISBN 3-540-34468-3 (print), 3-540-34469-1 (e-book). ISSN 1439-7358 (print), 2197-7100 (electronic). LCCN QA402.2 .I55 2005. URL http://link.springer.com/content/pdf/10.1007/978-3-540-34469-8_75. Proceedings of the *Sixteenth International Conference on Domain Decomposition Methods*, New York City, January 11–15, 2005.

Jiang:2011:MMF

- [JE11] Lijian Jiang and Yalchin Efendiev. Mixed multiscale finite element analysis for wave equations using global information. In Huang et al. [HKWX11], pages 181–188. CODEN LNCSA6. ISBN 3-642-11303-6 (print), 3-642-11304-4 (e-book). ISSN 1439-7358 (print), 2197-7100 (electronic). LCCN QA402.2 .I58 2011. URL http://link.springer.com/content/pdf/10.1007/978-3-642-11304-8_19. Papers presented at the 19th International Conference on Domain Decomposition, DD19, hosted by the School of Mathematics and Computational Science of the Xiangtan University and the Hunan Key Laboratory for Computation and Simulation in Science and Engineering and held in Zhanjiajie, China, August 17–22, 2009.

Jungwirth:1999:NMQ

- [JG99] Pavel Jungwirth and R. Benny Gerber. New methods in quantum molecular dynamics of large polyatomic systems. In Deuffhard et al. [DHL⁺99], pages 365–379. CODEN LNCSA6. ISBN 3-540-63242-5 (print), 3-642-58360-1 (e-book). ISSN 1439-7358 (print), 2197-7100 (electronic). LCCN QP517.M65 I56 1999. URL http://link.springer.com/chapter/10.1007/978-3-642-58360-5_20/.

Joachims:2006:LAS

- [JGE06] Thorsten Joachims, Tamara Galor, and Ron Elber. Learning to align sequences: a maximum-margin approach. In Leimkuhler et al. [LCE⁺06], pages 57–69. CODEN LNCSA6. ISBN 3-540-25542-7 (print), 3-540-31618-3 (e-book). ISSN 1439-7358 (print), 2197-7100 (electronic). LCCN QP517.M3 N49 2006. URL http://link.springer.com/content/pdf/10.1007/3-540-31618-3_4. Papers from the fourth edition of *Algorithms for Macromolecular Modelling*, Leicester, UK August 2004.

Jefferies:2015:FPM

- [JKAG15] Anthony Jefferies, Jörg Kuhnert, Lars Aschenbrenner, and Uwe Giffhorn. Finite pointset method for the simulation of a vehicle travelling through a body of water. In Griebel and Schweitzer [GS14], pages 205–221. ISBN 3-319-06898-9. LCCN QA71 .G75 2015; QA377. URL http://link.springer.com/chapter/10.1007/978-3-319-06898-5_11/.

Jourdain:2005:CPS

- [JL05] Benjamin Jourdain and Claude Le Bris. Coupling PDEs and SDEs: The illustrative example of the multiscale simulation of viscoelastic flows. In Engquist et al. [ERL05], pages 149–168. CODEN LNCSA6. ISBN 3-540-25335-1 (print), 3-540-26444-2 (e-book). ISSN 1439-7358 (print), 2197-7100 (electronic). LCCN TA347.F5 M85 2005. URL http://link.springer.com/content/pdf/10.1007/3-540-26444-2_7. Proceedings of *Multiscale Methods in Science and Engineering*, Uppsala, Sweden, January 26–28, 2004.

Janezic:1999:LTS

- [JM99] Dusanka Janezic and Franci Merzel. Long time step MD simulations using split integration symplectic method. In Deuffhard et al. [DHL⁺99], pages 332–348. CODEN LNCSA6.

ISBN 3-540-63242-5 (print), 3-642-58360-1 (e-book). ISSN 1439-7358 (print), 2197-7100 (electronic). LCCN QP517.M65 I56 1999. URL http://link.springer.com/chapter/10.1007/978-3-642-58360-5_18/.

Jee:2006:IAD

- [JM06] Kyung-Wook Jee and Daniel L. McShan. Implementation of automatic differentiation tools for multicriteria IMRT optimization. In Bücker et al. [BCH⁺06], pages 225–234. CODEN LNCSA6. ISBN 3-540-28403-6 (print), 3-540-28438-9 (e-book). ISSN 1439-7358 (print), 2197-7100 (electronic). LCCN QA304 .I58 2006. URL http://link.springer.com/content/pdf/10.1007/3-540-28438-9_20. Proceedings of the Fourth International Conference on Automatic Differentiation, July 20–23, Chicago, Illinois.

Jaworski:2008:TMM

- [JM08] Armen Jaworski and Jens-Dominik Müller. Toward modular multigrid design optimisation. In Bischof et al. [BBH⁺08], pages 281–291. CODEN LNCSA6. ISBN 3-540-68935-4 (print), 3-540-68942-7 (e-book). ISSN 1439-7358 (print), 2197-7100 (electronic). LCCN QA304 .I58 2008. URL http://link.springer.com/content/pdf/10.1007/978-3-540-68942-3_25.

Jenny:2012:TPM

- [JM12] Patrick Jenny and Daniel W. Meyer. Transported probability and mass density function (PDF/MDF) methods for uncertainty assessment and multi-scale problems. In Graham et al. [GHLS12], pages 35–65. CODEN LNCSA6. ISBN 3-642-22060-6 (print), 3-642-22061-4 (e-book). ISSN 1439-7358 (print), 2197-7100 (electronic). LCCN QA297 .N844 2012. URL http://link.springer.com/content/pdf/10.1007/978-3-642-22061-6_2. Ten invited expository articles from the 91st LMS Durham Symposium on *Numerical Analysis of Multiscale Problems*, Durham, UK, 5–15 July 2010.

Johnson:2002:MMI

- [JMR⁺02] C. R. Johnson, M. Mohr, U. Rüde, A. Samsonov, and K. Zyp. Multilevel methods for inverse bioelectric field problems. In Barth et al. [BCH02], pages 331–346. CODEN LNCSA6. ISBN 3-540-42420-2 (print), 3-642-56205-1 (e-book). ISSN 1439-7358 (print), 2197-7100 (electronic). LCCN QA403.3

.M85 2002. URL http://link.springer.com/content/pdf/10.1007/978-3-642-56205-1_10. Papers from the Yosemite Educational Symposium (YES), Yosemite valley, California, Fall 2000.

John:2004:DM

- [Joh04a] Volker John. Discretisation of the LES models. In *Large Eddy Simulation of Turbulent Incompressible Flows: Analytical and Numerical Results for a Class of LES Models* [Joh04f], pages 99–124. CODEN LNCSA6. ISBN 3-540-40643-3 (print), 3-642-18682-3 (e-book). ISSN 1439-7358 (print), 2197-7100 (electronic). LCCN TA357.5.T87 J64 2004. URL http://link.springer.com/content/pdf/10.1007/978-3-642-18682-0_7.

John:2004:EAF

- [Joh04b] Volker John. Error analysis of finite element discretisations of the LES models. In *Large Eddy Simulation of Turbulent Incompressible Flows: Analytical and Numerical Results for a Class of LES Models* [Joh04f], pages 125–161. CODEN LNCSA6. ISBN 3-540-40643-3 (print), 3-642-18682-3 (e-book). ISSN 1439-7358 (print), 2197-7100 (electronic). LCCN TA357.5.T87 J64 2004. URL http://link.springer.com/content/pdf/10.1007/978-3-642-18682-0_8.

John:2004:EUS

- [Joh04c] Volker John. Existence and uniqueness of solutions of the LES models. In *Large Eddy Simulation of Turbulent Incompressible Flows: Analytical and Numerical Results for a Class of LES Models* [Joh04f], pages 73–98. CODEN LNCSA6. ISBN 3-540-40643-3 (print), 3-642-18682-3 (e-book). ISSN 1439-7358 (print), 2197-7100 (electronic). LCCN TA357.5.T87 J64 2004. URL http://link.springer.com/content/pdf/10.1007/978-3-642-18682-0_6.

John:2004:FM

- [Joh04d] Volker John. Front matter. In *Large Eddy Simulation of Turbulent Incompressible Flows: Analytical and Numerical Results for a Class of LES Models* [Joh04f], pages i–xii. CODEN LNCSA6. ISBN 3-540-40643-3 (print), 3-642-18682-3 (e-book). ISSN 1439-7358 (print), 2197-7100 (electronic). LCCN TA357.5.T87 J64 2004. URL <http://link.springer.com/content/pdf/bfm:978-3-642-18682-0/1>.

John:2004:I

- [Joh04e] Volker John. Introduction. In *Large Eddy Simulation of Turbulent Incompressible Flows: Analytical and Numerical Results for a Class of LES Models* [Joh04f], pages 1–9. CODEN LNCSA6. ISBN 3-540-40643-3 (print), 3-642-18682-3 (e-book). ISSN 1439-7358 (print), 2197-7100 (electronic). LCCN TA357.5.T87 J64 2004. URL http://link.springer.com/content/pdf/10.1007/978-3-642-18682-0_1.

John:2004:LES

- [Joh04f] Volker John. *Large Eddy Simulation of Turbulent Incompressible Flows: Analytical and Numerical Results for a Class of LES Models*, volume 34 of *Lecture Notes in Computational Science and Engineering*. Springer-Verlag Inc., New York, NY, USA, 2004. CODEN LNCSA6. ISBN 3-540-40643-3 (print), 3-642-18682-3 (e-book). ISSN 1439-7358 (print), 2197-7100 (electronic). xii + 261 pp. LCCN TA357.5.T87 J64 2004. URL <http://link.springer.com/book/10.1007/978-3-642-18682-0>; <http://www.springerlink.com/content/978-3-642-18682-0>.

John:2004:MWB

- [Joh04g] Volker John. LES models which are based on approximations in wave number space. In *Large Eddy Simulation of Turbulent Incompressible Flows: Analytical and Numerical Results for a Class of LES Models* [Joh04f], pages 47–62. CODEN LNCSA6. ISBN 3-540-40643-3 (print), 3-642-18682-3 (e-book). ISSN 1439-7358 (print), 2197-7100 (electronic). LCCN TA357.5.T87 J64 2004. URL http://link.springer.com/content/pdf/10.1007/978-3-642-18682-0_4.

John:2004:MTB

- [Joh04h] Volker John. Mathematical tools and basic notations. In *Large Eddy Simulation of Turbulent Incompressible Flows: Analytical and Numerical Results for a Class of LES Models* [Joh04f], pages 11–19. CODEN LNCSA6. ISBN 3-540-40643-3 (print), 3-642-18682-3 (e-book). ISSN 1439-7358 (print), 2197-7100 (electronic). LCCN TA357.5.T87 J64 2004. URL http://link.springer.com/content/pdf/10.1007/978-3-642-18682-0_2.

John:2004:N

- [Joh04i] Volker John. Notations. In *Large Eddy Simulation of Turbulent Incompressible Flows: Analytical and Numerical Results for a Class of LES Models* [Joh04f], pages 245–249. CODEN LNCSA6. ISBN 3-540-40643-3 (print), 3-642-18682-3 (e-book). ISSN 1439-7358 (print), 2197-7100 (electronic). LCCN TA357.5.T87 J64 2004. URL http://link.springer.com/content/pdf/10.1007/978-3-642-18682-0_13.

John:2004:NSN

- [Joh04j] Volker John. A numerical study of a necessary condition for the acceptability of LES models. In *Large Eddy Simulation of Turbulent Incompressible Flows: Analytical and Numerical Results for a Class of LES Models* [Joh04f], pages 189–198. CODEN LNCSA6. ISBN 3-540-40643-3 (print), 3-642-18682-3 (e-book). ISSN 1439-7358 (print), 2197-7100 (electronic). LCCN TA357.5.T87 J64 2004. URL http://link.springer.com/content/pdf/10.1007/978-3-642-18682-0_10.

John:2004:NSA

- [Joh04k] Volker John. A numerical study of the approximation of space averaged flow fields by the considered LES models. In *Large Eddy Simulation of Turbulent Incompressible Flows: Analytical and Numerical Results for a Class of LES Models* [Joh04f], pages 199–239. CODEN LNCSA6. ISBN 3-540-40643-3 (print), 3-642-18682-3 (e-book). ISSN 1439-7358 (print), 2197-7100 (electronic). LCCN TA357.5.T87 J64 2004. URL http://link.springer.com/content/pdf/10.1007/978-3-642-18682-0_11.

John:2004:PFI

- [Joh04l] Volker John. Problems for further investigations. In *Large Eddy Simulation of Turbulent Incompressible Flows: Analytical and Numerical Results for a Class of LES Models* [Joh04f], pages 241–244. CODEN LNCSA6. ISBN 3-540-40643-3 (print), 3-642-18682-3 (e-book). ISSN 1439-7358 (print), 2197-7100 (electronic). LCCN TA357.5.T87 J64 2004. URL http://link.springer.com/content/pdf/10.1007/978-3-642-18682-0_12.

John:2004:SLS

- [Joh04m] Volker John. The solution of the linear systems. In *Large Eddy Simulation of Turbulent Incompressible Flows: Ana-*

lytical and Numerical Results for a Class of LES Models [Joh04f], pages 163–187. CODEN LNCSA6. ISBN 3-540-40643-3 (print), 3-642-18682-3 (e-book). ISSN 1439-7358 (print), 2197-7100 (electronic). LCCN TA357.5.T87 J64 2004. URL http://link.springer.com/content/pdf/10.1007/978-3-642-18682-0_9.

John:2004:SAN

- [Joh04n] Volker John. The space averaged Navier–Stokes equations and the commutation error. In *Large Eddy Simulation of Turbulent Incompressible Flows: Analytical and Numerical Results for a Class of LES Models* [Joh04f], pages 21–46. CODEN LNCSA6. ISBN 3-540-40643-3 (print), 3-642-18682-3 (e-book). ISSN 1439-7358 (print), 2197-7100 (electronic). LCCN TA357.5.T87 J64 2004. URL http://link.springer.com/content/pdf/10.1007/978-3-642-18682-0_3.

John:2004:VFM

- [Joh04o] Volker John. The variational formulation of the LES models. In *Large Eddy Simulation of Turbulent Incompressible Flows: Analytical and Numerical Results for a Class of LES Models* [Joh04f], pages 63–71. CODEN LNCSA6. ISBN 3-540-40643-3 (print), 3-642-18682-3 (e-book). ISSN 1439-7358 (print), 2197-7100 (electronic). LCCN TA357.5.T87 J64 2004. URL http://link.springer.com/content/pdf/10.1007/978-3-642-18682-0_5.

Joly:2003:VMT

- [Jol03] Patrick Joly. Variational methods for time-dependent wave propagation problems. In Ainsworth et al. [ADD⁺03], pages 201–264. CODEN LNCSA6. ISBN 3-540-00744-X (print), 3-642-55483-0 (e-book). ISSN 1439-7358 (print), 2197-7100 (electronic). LCCN QC661 .T67 2003. URL http://link.springer.com/content/pdf/10.1007/978-3-642-55483-4_6. Proceedings of the LMS Durham Symposium on Computational Methods for Wave Propagation in Direct Scattering University of Durham, 15–25 July 2002.

Joo:2005:RIH

- [Joó05] Bálint Joó. Reversibility and instabilities in hybrid Monte Carlo simulations. In Boriçi et al. [BFJ⁺05], pages 91–99. CODEN LNCSA6. ISBN 3-540-21257-4 (print), 3-540-28504-0 (e-book). ISSN 1439-7358 (print), 2197-7100 (electronic).

LCCN QC793.3.Q35 I56 2003. URL http://link.springer.com/content/pdf/10.1007/3-540-28504-0_9.

Jourdren:2005:HHA

- [Jou05] Hervé Jourdren. HERA: a hydrodynamic AMR platform for multi-physics simulations. In Plewa et al. [PLW05], pages 283–294. CODEN LNCSA6. ISBN 3-540-21147-0 (print), 3-540-27039-6 (e-book). ISSN 1439-7358 (print), 2197-7100 (electronic). LCCN QA377 .C46 2003. URL http://link.springer.com/content/pdf/10.1007/3-540-27039-6_19.

Jakeman:2013:LDA

- [JR13] John D. Jakeman and Stephen G. Roberts. Local and dimension adaptive stochastic collocation for uncertainty quantification. In Garcke and Griebel [GG13], pages 181–203. CODEN LNCSA6. ISBN 3-642-31702-2 (print), 3-642-31703-0 (e-book). ISSN 1439-7358 (print), 2197-7100 (electronic). LCCN ???? URL http://link.springer.com/content/pdf/10.1007/978-3-642-31703-3_9. Proceedings of workshop in Bonn, Germany, from May 16–20, 2011.

Ju:2011:VTT

- [JRG11] Lili Ju, Todd Ringler, and Max Gunzburger. Voronoi tessellations and their application to climate and global modeling. In Lauritzen et al. [LJTN11], pages 313–342. CODEN LNCSA6. ISBN 3-642-11639-6 (print), 3-642-11640-X (e-book). ISSN 1439-7358 (print), 2197-7100 (electronic). LCCN QC861.3 .N86 2011. URL http://link.springer.com/content/pdf/10.1007/978-3-642-11640-7_10. Proceedings of the colloquium *Numerical Techniques for Global Atmospheric Models* held at the National Center for Atmospheric Research (NCAR) in Boulder, Colorado, 1–13 June 2008.

John:2009:FEM

- [JS09] Volker John and Ellen Schmeier. On finite element methods for 3D time-dependent convection-diffusion-reaction equations with small diffusion. In Hegarty et al. [HKOS09], pages 173–181. CODEN LNCSA6. ISBN 3-642-00604-3 (print), 3-642-00605-1 (e-book). ISSN 1439-7358 (print), 2197-7100 (electronic). LCCN ???? URL http://link.springer.com/content/pdf/10.1007/978-3-642-00605-0_13.

Jahnke:2014:EBH

- [JS14] Tobias Jahnke and Vikram Sunkara. Error bound for hybrid models of two-scaled stochastic reaction systems. In Dahlke et al. [DDG⁺14], pages 303–319. ISBN 3-319-08159-4. LCCN ????. URL http://link.springer.com/chapter/10.1007/978-3-319-08159-5_15/.

Jost:2014:NED

- [JSH14] Leonardo Jost, Simon Setzer, and Matthias Hein. Nonlinear eigenproblems in data analysis: Balanced graph cuts and the RatioDCA-Prox. In Dahlke et al. [DDG⁺14], pages 263–279. ISBN 3-319-08159-4. LCCN ????. URL http://link.springer.com/chapter/10.1007/978-3-319-08159-5_13/.

Joyot:2005:ERK

- [JT05] Pierre Joyot and Jean Trunzler. Enriched reproducing kernel approximation: Reproducing functions with discontinuous derivatives. In Griebel and Schweitzer [GS05], pages 93–107. CODEN LNCSA6. ISBN 3-540-23026-2 (print), 3-540-27099-X (e-book). ISSN 1439-7358 (print), 2197-7100 (electronic). LCCN QA377 .M452 2005. URL http://link.springer.com/content/pdf/10.1007/3-540-27099-X_6. Proceedings of the Second International Workshop on Meshfree Methods for Partial Differential Equations, Institut für Numerische Simulation Rheinische Friedrich-Wilhelms Universität Bonn, September 15–17, 2003.

Joyot:2007:ERK

- [JT07] Pierre Joyot and Jean Trunzler. Enriched reproducing kernel particle approximation for simulating problems involving moving interfaces. In Griebel and Schweitzer [GS07b], pages 149–164. CODEN LNCSA6. ISBN 3-540-46214-7 (print), 3-540-46222-8 (e-book). ISSN 1439-7358 (print), 2197-7100 (electronic). LCCN QA377 .M45 2005. URL http://link.springer.com/content/pdf/10.1007/978-3-540-46222-4_9. Third international workshop on Meshfree Methods for Partial Differential Equations held from September 12 to September 15, 2005 in Bonn, Germany.

Journee:2008:GOM

- [JT08] Michel Journée and Andrew E. Teschendorff. Geometric optimization methods for the analysis of gene expression data. In

Gorban et al. [GKWZ08], pages 271–292. CODEN LNCSA6. ISBN 3-540-73749-9 (print), 3-540-73750-2 (e-book). ISSN 1439-7358 (print), 2197-7100 (electronic). LCCN QA278.5 .P75 2008. URL http://link.springer.com/content/pdf/10.1007/978-3-540-73750-6_12.

Jung:1998:PML

- [Jun98] Michael Jung. Parallel multi-level solvers for elliptic boundary value problems in three-dimensional domains. In Hackbusch and Wittum [HW98], pages 125–139. CODEN LNCSA6. ISBN 3-540-63133-X (softcover), 3-642-58734-8 (e-book). ISSN 1439-7358 (print), 2197-7100 (electronic). LCCN QA377 .E94 1996. URL http://link.springer.com/chapter/10.1007/978-3-642-58734-4_7/.

Junk:2002:DFV

- [Jun02] Michael Junk. Do finite volume methods need a mesh? In Griebel and Schweitzer [GS02b], pages 223–238. CODEN LNCSA6. ISBN 3-540-43891-2 (print), 3-642-56103-9 (e-book). ISSN 1439-7358 (print), 2197-7100 (electronic). LCCN QA377 .M45 2003. URL http://link.springer.com/content/pdf/10.1007/978-3-642-56103-0_15. Proceedings of a workshop on Meshfree Methods for Partial Differential Equations, Institut für Angewandte Mathematik, Rheinische Friedrich-Wilhelms Universität Bonn, September 11–14, 2001.

Jung:2011:HMR

- [Jun11] Jae-Hun Jung. A hybrid method for the resolution of the Gibbs phenomenon. In Hesthaven and Rønquist [HR11], pages 219–227. CODEN LNCSA6. ISBN 3-642-15336-4 (print), 3-642-15337-2 (e-book). ISSN 1439-7358 (print), 2197-7100 (electronic). LCCN ???? URL http://link.springer.com/content/pdf/10.1007/978-3-642-15337-2_19.

Juntunen:2015:LMS

- [Jun15] Mika Juntunen. On the local mesh size of Nitsche's method for discontinuous material parameters. In Abdulle et al. [ADK⁺15], pages 57–63. ISBN 3-319-10704-6 (paperback), 3-319-10705-4 (e-book). ISSN 1439-7358 (print), 2197-7100 (electronic). LCCN QA76.9.M35 .E976 2015. URL http://link.springer.com/chapter/10.1007/978-3-319-10705-9_5/.

Junk:2007:DPM

- [JV07] M. Junk and G. Venkiteswaran. Deterministic particle methods for high dimensional Fokker–Planck equations. In Griebel and Schweitzer [GS07b], pages 165–183. CODEN LNCSA6. ISBN 3-540-46214-7 (print), 3-540-46222-8 (e-book). ISSN 1439-7358 (print), 2197-7100 (electronic). LCCN QA377 .M45 2005. URL http://link.springer.com/content/pdf/10.1007/978-3-540-46222-4_10. Third international workshop on Meshfree Methods for Partial Differential Equations held from September 12 to September 15, 2005 in Bonn, Germany.

Jablonowski:2011:PCD

- [JW11] Christiane Jablonowski and David L. Williamson. The pros and cons of diffusion, filters and fixers in atmospheric general circulation models. In Lauritzen et al. [LJTN11], pages 381–493. CODEN LNCSA6. ISBN 3-642-11639-6 (print), 3-642-11640-X (e-book). ISSN 1439-7358 (print), 2197-7100 (electronic). LCCN QC861.3 .N86 2011. URL http://link.springer.com/content/pdf/10.1007/978-3-642-11640-7_13. Proceedings of the colloquium *Numerical Techniques for Global Atmospheric Models* held at the National Center for Atmospheric Research (NCAR) in Boulder, Colorado, 1–13 June 2008.

Janssen:2015:CCC

- [JW15] Bärbel Janssen and Thomas P. Wihler. Computational comparison of continuous and discontinuous Galerkin time-stepping methods for nonlinear initial value problems. In Kirby et al. [KBH15], pages 103–114. ISBN 3-319-19799-1, 3-319-19800-9 (e-book). LCCN QA377. URL http://link.springer.com/chapter/10.1007/978-3-319-19800-2_7/.

Kraja:2013:DSH

- [KAB13] Fisnik Kraja, Georg Acher, and Arndt Bode. Designing spacecraft high performance computing architectures. In Bader et al. [BBW13], pages 137–156. ISBN 3-642-38761-6, 3-642-38762-4 (e-book). ISSN 1439-7358 (print), 2197-7100 (electronic). LCCN ????. URL http://link.springer.com/chapter/10.1007/978-3-642-38762-3_7/.

Kalligiannaki:2012:CCG

- [Kal12] Evangelia Kalligiannaki. Coupled coarse graining and Markov chain Monte Carlo for lattice systems. In Engquist et al.

[ERT12], pages 235–257. CODEN LNCSA6. ISBN 3-642-21942-X (print), 3-642-21943-8 (e-book). ISSN 1439-7358 (print), 2197-7100 (electronic). LCCN ????? URL http://link.springer.com/content/pdf/10.1007/978-3-642-21943-6_11.

Kaminishi:2002:PFC

- [Kam02] Ken Kaminishi. Prediction of the fatigue crack growth life in microelectronics solder joints. In Babuška et al. [BCM02], pages 23–38. CODEN LNCSA6. ISBN 3-540-42399-0 (print), 3-642-56288-4 (e-book). ISSN 1439-7358 (print), 2197-7100 (electronic). LCCN QA808.2 .I59 2000. URL http://link.springer.com/content/pdf/10.1007/978-3-642-56288-4_3.

Kanschat:1999:PCM

- [Kan99] G. Kanschat. Parallel computation of multi-dimensional neutron and photon transport in inhomogeneous media. In Bungartz et al. [BDZ99], pages 431–440. CODEN LNCSA6. ISBN 3-540-65730-4 (print), 3-642-60155-3 (e-book). ISSN 1439-7358 (print), 2197-7100 (electronic). LCCN Q183.9.I58 1998. URL http://link.springer.com/chapter/10.1007/978-3-642-60155-2_36/.

Kang:2007:NSA

- [Kan07] Kab Seok Kang. New streamfunction approach for magnetohydrodynamics. In Widlund and Keyes [WK07], pages 619–626. CODEN LNCSA6. ISBN 3-540-34468-3 (print), 3-540-34469-1 (e-book). ISSN 1439-7358 (print), 2197-7100 (electronic). LCCN QA402.2 .I55 2005. URL http://link.springer.com/content/pdf/10.1007/978-3-540-34469-8_77. Proceedings of the *Sixteenth International Conference on Domain Decomposition Methods*, New York City, January 11–15, 2005.

Kassianov:2006:MSR

- [Kas06] Evgueni I. Kassianov. Mathematical simulation of the radiative transfer in statistically inhomogeneous clouds. In Graziani [Gra06], pages 141–149. CODEN LNCSA6. ISBN 3-540-28122-3 (print), 3-540-28125-8 (e-book). ISSN 1439-7358 (print), 2197-7100 (electronic). LCCN MLCM 2006/40189 (Q); QC793.3.T7 C66 2006. URL http://link.springer.com/content/pdf/10.1007/3-540-28125-8_6.

Konash:2003:CII

- [KB03] Aliaksei Konash and Sergey Bagnich. Computer investigation of the influence of the internal structure topology on the percolation process in two- and three-dimensional inhomogeneous systems. In Emmerich et al. [ENS03], page ?? CODEN LNCSA6. ISBN 3-540-40367-1. ISSN 1439-7358 (print), 2197-7100 (electronic). LCCN QC173.4.I57 I57 2003. URL <http://www.loc.gov/catdir/enhancements/fy0818/2003060231-d.html>. Papers from the workshop on “Computational Physics of Transport and Interfacial Dynamics”, Dresden, February 25–March 8, 2002.

Kimn:2007:NIO

- [KB07] Jung-Han Kimn and Blaise Bourdin. Numerical implementation of overlapping balancing domain decomposition methods on unstructured meshes. In Widlund and Keyes [WK07], pages 309–315. CODEN LNCSA6. ISBN 3-540-34468-3 (print), 3-540-34469-1 (e-book). ISSN 1439-7358 (print), 2197-7100 (electronic). LCCN QA402.2 .I55 2005. URL http://link.springer.com/content/pdf/10.1007/978-3-540-34469-8_37. Proceedings of the *Sixteenth International Conference on Domain Decomposition Methods*, New York City, January 11–15, 2005.

Kruis:2008:RMI

- [KB08] Jaroslav Kruis and Zdenek Bittnar. Reinforcement-matrix interaction modeled by FETI method. In Langer et al. [LDK⁺08], pages 567–573. CODEN LNCSA6. ISBN 3-540-75198-X (print), 3-540-75199-8 (e-book). ISSN 1439-7358 (print), 2197-7100 (electronic). LCCN QA402.2 .I55 2006. URL http://link.springer.com/content/pdf/10.1007/978-3-540-75199-1_71. 17th International Conference on Domain Decomposition Methods held at St. Wolfgang/Strobl, Austria, July 3–7, 2006.

Khan:2012:EEC

- [KB12] Kamil A. Khan and Paul I. Barton. Evaluating an element of the Clarke generalized Jacobian of a piecewise differentiable function. In Forth et al. [FHP⁺12], pages 115–125. CODEN LNCSA6. ISBN 3-642-30022-7 (print), 3-642-30023-5 (e-book). ISSN 1439-7358 (print), 2197-7100 (electronic). LCCN ????. URL <http://link.springer.com/content/pdf/10.>

1007/978-3-642-30023-3_11. Proceedings of the Sixth International Conference on Automatic Differentiation (AD2012) held July 23–27, 2012, in Fort Collins, Colorado, USA.

Kreissig:2006:HAF

- [KBG06] Reiner Kreißig, Anke Bucher, and Uwe-Jens Görke. Hierarchical adaptive FEM at finite elastoplastic deformations. In Hoffmann and Meyer [HM06], pages 105–127. CODEN LNCSA6. ISBN 3-540-33539-0 (print), 3-540-33541-2 (e-book). ISSN 1439-7358 (print), 2197-7100 (electronic). LCCN QA76.58 .P358 2006. URL http://link.springer.com/content/pdf/10.1007/3-540-33541-2_7.

Kolditz:2012:T

- [KBG12] Olaf Kolditz, Norbert Böttcher, and Uwe-Jens Görke. Theory. In Kolditz et al. [KGSW12], pages 9–59. CODEN LNCSA6. ISBN 3-642-27176-6 (print), 3-642-27177-4 (e-book). ISSN 1439-7358 (print), 2197-7100 (electronic). LCCN ???? URL http://link.springer.com/content/pdf/10.1007/978-3-642-27177-9_2.

Kirby:2015:SHO

- [KBH15] Robert M. Kirby, Martin Berzins, and Jan S. Hesthaven, editors. *Spectral and high order methods for partial differential equations — ICOSAHOM '14: Selected papers from the ICOSAHOM conference, June 23–27, 2014, Salt Lake City, Utah, USA*, volume 106 of *Lecture Notes in Computational Science and Engineering*. Springer-Verlag Inc., New York, NY, USA, 2015. ISBN 3-319-19799-1, 3-319-19800-9 (e-book). LCCN QA377. URL <http://www.springerlink.com/content/978-3-319-19800-2>.

Kratzer:1999:LPD

- [KBS⁺99] M. Kratzer, R. P. Brinkmann, P. Scheubert, P. Awakowicz, and G. Wachutka. Low pressure discharges in plasma reactors: Modelling and computer-aided diagnostics. In Bungartz et al. [BDZ99], pages 405–416. CODEN LNCSA6. ISBN 3-540-65730-4 (print), 3-642-60155-3 (e-book). ISSN 1439-7358 (print), 2197-7100 (electronic). LCCN Q183.9.I58 1998. URL http://link.springer.com/chapter/10.1007/978-3-642-60155-2_34/.

Kedde:2001:AAE

- [KBT01] M. Kedde, P.-P. Borsboom, and C. R. Traas. Appraisal of asymptotics in electromagnetic field calculations. In van Rienen et al. [vRGH01], pages 137–144. CODEN LNCSA6. ISBN 3-540-42173-4 (softcover), 3-642-56470-4 (e-book). ISSN 1439-7358 (print), 2197-7100 (electronic). LCCN TK5 .S35 2001. URL http://link.springer.com/content/pdf/10.1007/978-3-642-56470-3_14. Selected contributions presented at the 3rd International Workshop on Scientific Computing in Electrical Engineering.

Kim:2009:SPA

- [KCO09] Younghoon Kim, YoungIn Choi, and Honam Ok. A study on the prediction of the aerodynamic characteristics of an orbital block of a launch vehicle in the rarefied flow regime using the DSMC approach and the parallel computation. In Tuncer et al. [TGEM09], pages 99–106. CODEN LNCSA6. ISBN 3-540-92743-3 (print), 3-540-92744-1 (e-book). ISSN 1439-7358 (print), 2197-7100 (electronic). LCCN ????. URL http://link.springer.com/content/pdf/10.1007/978-3-540-92744-0_12. Parallel CFD 2007 was held in Antalya, Turkey, from May 21 to 24, 2007.

Krasny:2002:TAC

- [KD02] Robert Krasny and Zhong-Hui Duan. Treecode algorithms for computing nonbonded particle interactions. In Schlick and Gan [SG02], pages 359–380. CODEN LNCSA6. ISBN 3-540-43756-8 (print), 3-642-56080-6 (e-book). ISSN 1439-7358 (print), 2197-7100 (electronic). LCCN QP517.M3 A384 2000. URL http://link.springer.com/content/pdf/10.1007/978-3-642-56080-4_15.

Kalbacher:2012:RF

- [KD12] Thomas Kalbacher and Yanliang Du. Richards flow. In Kolditz et al. [KGSW12], pages 125–142. CODEN LNCSA6. ISBN 3-642-27176-6 (print), 3-642-27177-4 (e-book). ISSN 1439-7358 (print), 2197-7100 (electronic). LCCN ????. URL http://link.springer.com/content/pdf/10.1007/978-3-642-27177-9_6.

Klindworth:2014:DTB

- [KEK14] Dirk Klindworth, Matthias Ehrhardt, and Thomas Koprucki. Discrete transparent boundary conditions for multi-band ef-

fective mass approximations. In Ehrhardt and Koprucki [EK14], pages 273–318. ISBN 3-319-01426-9, 3-319-01427-7 (e-book). ISSN 1439-7358 (print), 2197-7100 (electronic). LCCN QA71-90; QA300. URL http://link.springer.com/chapter/10.1007/978-3-319-01427-2_8/.

Kennedy:2005:FEZ

- [Ken05] A. D. Kennedy. Fast evaluation of Zolotarev coefficients. In Boriçi et al. [BFJ⁺05], pages 169–189. CODEN LNCSA6. ISBN 3-540-21257-4 (print), 3-540-28504-0 (e-book). ISSN 1439-7358 (print), 2197-7100 (electronic). LCCN QC793.3.Q35 I56 2003. URL http://link.springer.com/content/pdf/10.1007/3-540-28504-0_16.

Kesselman:2000:DVG

- [Kes00] Carl Kesselman. Distributed visualization and the Grid. In Engquist et al. [EJHS00], page 99. CODEN LNCSA6. ISBN 3-540-67264-8 (print), 3-642-57313-4 (e-book). ISSN 1439-7358 (print), 2197-7100 (electronic). LCCN QA76.9.C65 S535 2000. URL http://link.springer.com/accesspage/chapter/10.1007/978-3-642-57313-2_11.

Khattri:2007:CVF

- [KFD07] Sanjay K. Khattri, Gunnar E. Fladmark, and Helge K. Dahle. Control volume finite difference on adaptive meshes. In Widlund and Keyes [WK07], pages 627–633. CODEN LNCSA6. ISBN 3-540-34468-3 (print), 3-540-34469-1 (e-book). ISSN 1439-7358 (print), 2197-7100 (electronic). LCCN QA402.2 .I55 2005. URL http://link.springer.com/content/pdf/10.1007/978-3-540-34469-8_78. Proceedings of the *Sixteenth International Conference on Domain Decomposition Methods*, New York City, January 11–15, 2005.

Klein:2007:NDS

- [KFJ07] Markus Klein, Martin Freitag, and Johannes Janicka. Numerical determination of the scaling exponent of the modeled subgrid stresses for eddy viscosity models. In Kassinos et al. [KLIM07], pages 161–172. CODEN LNCSA6. ISBN 3-540-34233-8 (print), 3-540-34234-6 (e-book). ISSN 1439-7358 (print), 2197-7100 (electronic). LCCN TA357.5.T87 C66 2007. URL http://link.springer.com/content/pdf/10.1007/978-3-540-34234-2_12. Proceedings of the symposium

on *Complex Effects in Large Eddy Simulation* held in Lemesos (Limassol), Cyprus, September 21–24, 2005.

Klein:2005:RAC

- [KFMK05] Richard I. Klein, Robert T. Fisher, Christopher F. McKee, and Mark Krumholz. Recent advances in the collapse and fragmentation of turbulent molecular cloud cores: The formation of low mass stars. In Plewa et al. [PLW05], pages 431–442. CODEN LNCSA6. ISBN 3-540-21147-0 (print), 3-540-27039-6 (e-book). ISSN 1439-7358 (print), 2197-7100 (electronic). LCCN QA377 .C46 2003. URL http://link.springer.com/content/pdf/10.1007/3-540-27039-6_32.

Kamatsuch:2011:FCU

- [KFN11] T. Kamatsuch, T. Fukushige, and K. Nakahashi. Flow computations using embedded boundary conditions on block structured Cartesian grid. In Tromeur-Dervout et al. [TDBEE11], pages 137–144. CODEN LNCSA6. ISBN 3-642-14437-3 (print), 3-642-14438-1 (e-book). ISSN 1439-7358 (print), 2197-7100 (electronic). LCCN ???? URL http://link.springer.com/content/pdf/10.1007/978-3-642-14438-7_14. Proceedings of the twentieth meeting, Parallel CFD 2008, held May 19–22, 2008 in Lyon, France.

Kaminski:2006:ESS

- [KG06] Thomas Kaminski and Ralf Giering. Efficient sensitivities for the spin-up phase. In Bücker et al. [BCH⁺06], pages 285–293. CODEN LNCSA6. ISBN 3-540-28403-6 (print), 3-540-28438-9 (e-book). ISSN 1439-7358 (print), 2197-7100 (electronic). LCCN QA304 .I58 2006. URL http://link.springer.com/content/pdf/10.1007/3-540-28438-9_25. Proceedings of the Fourth International Conference on Automatic Differentiation, July 20–23, Chicago, Illinois.

Kolditz:2012:THM

- [KGSW12] Olaf Kolditz, Uwe-Jens Görke, Hua Shao, and Wenqing Wang, editors. *Thermo-Hydro-Mechanical-Chemical Processes in Porous Media: Benchmarks and Examples*, volume 86 of *Lecture Notes in Computational Science and Engineering*. Springer-Verlag Inc., New York, NY, USA, 2012. CODEN LNCSA6. ISBN 3-642-27176-6 (print), 3-642-27177-4 (e-book). ISSN 1439-7358 (print), 2197-7100 (electronic).

LCCN ???? URL <http://link.springer.com/book/10.1007/978-3-642-27177-9>; <http://www.springerlink.com/content/978-3-642-27177-9>.

König:1999:AEM

- [KGW99] E.-R. König, P. Groth, and G. Wachutka. Analysis of electromechanical microdevices using coupled FEM-BEM based on the TP2000 CAD platform. In Bungartz et al. [BDZ99], pages 387–396. CODEN LNCSA6. ISBN 3-540-65730-4 (print), 3-642-60155-3 (e-book). ISSN 1439-7358 (print), 2197-7100 (electronic). LCCN Q183.9.I58 1998. URL http://link.springer.com/chapter/10.1007/978-3-642-60155-2_32/.

Kowitz:2014:OMC

- [KH14] Christoph Kowitz and Markus Hegland. An opticom method for computing eigenpairs. In Garcke and Pflüger [GP14], pages 239–253. ISBN 3-319-04536-9 (paperback), 3-319-04537-7 (e-book). LCCN QA188 .S63 2013. URL http://link.springer.com/chapter/10.1007/978-3-319-04537-5_10/.

Kharitonov:2004:CTL

- [Kha04] Vladimir L. Kharitonov. Complete type Lyapunov–Krasovskii functionals. In Niculescu and Gu [NG04], pages 31–42. CODEN LNCSA6. ISBN 3-540-20890-9 (print), 3-642-18482-0 (e-book). ISSN 1439-7358 (print), 2197-7100 (electronic). LCCN TJ213 .A253 2004. URL http://link.springer.com/content/pdf/10.1007/978-3-642-18482-6_2. Most of the chapters are based on the materials presented in the CNRS-NSF Workshop *Advances in Time-Delay Systems* held in Paris in January 22–24, 2003.

Kucera:2005:FBD

- [KHD05] Radek Kucera, Jaroslav Haslinger, and Zdenek Dostál. The FETI based domain decomposition method for solving 3D-multibody contact problems with Coulomb friction. In Kornhuber et al. [KHP⁺05], pages 369–376. CODEN LNCSA6. ISBN 3-540-22523-4 (print), 3-540-26825-1 (e-book). ISSN 1439-7358 (print), 2197-7100 (electronic). LCCN QA402.2 .I55 2003. URL http://link.springer.com/content/pdf/10.1007/3-540-26825-1_37. Papers from the 15th International Conference on Domain Decomposition, Freie Universität Berlin (FU), Berlin, Germany, July 21–25, 2003.

Kucera:2007:NFB

- [KHD07] Radek Kucera, Jaroslav Haslinger, and Zdenek Dostál. A new FETI-based algorithm for solving 3D contact problems with Coulomb friction. In Widlund and Keyes [WK07], pages 643–650. CODEN LNCSA6. ISBN 3-540-34468-3 (print), 3-540-34469-1 (e-book). ISSN 1439-7358 (print), 2197-7100 (electronic). LCCN QA402.2 .I55 2005. URL http://link.springer.com/content/pdf/10.1007/978-3-540-34469-8_80. Proceedings of the *Sixteenth International Conference on Domain Decomposition Methods*, New York City, January 11–15, 2005.

Kornhuber:2005:DDM

- [KHP⁺05] Ralf Kornhuber, Ronald Hoppe, Jacques Périaux, Olivier Pironneau, Olof Widlund, and Jinchao Xu, editors. *Domain Decomposition Methods in Science and Engineering*, volume 40 of *Lecture Notes in Computational Science and Engineering*. Springer-Verlag Inc., New York, NY, USA, 2005. CODEN LNCSA6. ISBN 3-540-22523-4 (print), 3-540-26825-1 (e-book). ISSN 1439-7358 (print), 2197-7100 (electronic). LCCN QA402.2 .I55 2003. URL <http://link.springer.com/book/10.1007/b138136>. Papers from the 15th International Conference on Domain Decomposition, Freie Universität Berlin (FU), Berlin, Germany, July 21–25, 2003.

Koppl:2015:MSM

- [KHW15] T. Köppl, R. Helmig, and B. Wohlmuth. A multi-scale model for mass transport in arteries and tissue. In Mehl et al. [MBS15], pages 197–213. ISBN 3-319-22996-6, 3-319-22997-4 (e-book). LCCN QA71-90; TA329. URL http://link.springer.com/chapter/10.1007/978-3-319-22997-3_12/.

Kickinger:1998:AMD

- [Kic98a] F. Kickinger. Algebraic multigrid for discrete elliptic second-order problems. In Hackbusch and Wittum [HW98], pages 157–172. CODEN LNCSA6. ISBN 3-540-63133-X (softcover), 3-642-58734-8 (e-book). ISSN 1439-7358 (print), 2197-7100 (electronic). LCCN QA377 .E94 1996. URL <http://link.springer.com/book/10.1007/978-3-642-58734-4>; <http://www.springerlink.com/content/978-3-642-58734-4>.

Kickinger:1998:AMG

- [Kic98b] Ferdinand Kickinger. Algebraic multi-grid for discrete elliptic second-order problems. In Hackbusch and Wittum [HW98], pages 157–172. CODEN LNCSA6. ISBN 3-540-63133-X (softcover), 3-642-58734-8 (e-book). ISSN 1439-7358 (print), 2197-7100 (electronic). LCCN QA377 .E94 1996. URL http://link.springer.com/chapter/10.1007/978-3-642-58734-4_9/.

Kiessling:2012:CJD

- [Kie12] Jonas Kiessling. Calibration of a jump-diffusion process using optimal control. In Engquist et al. [ERT12], pages 259–277. CODEN LNCSA6. ISBN 3-642-21942-X (print), 3-642-21943-8 (e-book). ISSN 1439-7358 (print), 2197-7100 (electronic). LCCN ???? URL http://link.springer.com/content/pdf/10.1007/978-3-642-21943-6_12.

Kikuchi:2002:NAE

- [Kik02] Fumio Kikuchi. Numerical analysis of electromagnetic problems. In Babuška et al. [BCM02], pages 109–124. CODEN LNCSA6. ISBN 3-540-42399-0 (print), 3-642-56288-4 (e-book). ISSN 1439-7358 (print), 2197-7100 (electronic). LCCN QA808.2 .I59 2000. URL http://link.springer.com/content/pdf/10.1007/978-3-642-56288-4_8.

Kim:2007:FDF

- [Kim07] Hyea Hyun Kim. A FETI-DP formulation for compressible elasticity with mortar constraints. In Widlund and Keyes [WK07], pages 381–388. CODEN LNCSA6. ISBN 3-540-34468-3 (print), 3-540-34469-1 (e-book). ISSN 1439-7358 (print), 2197-7100 (electronic). LCCN QA402.2 .I55 2005. URL http://link.springer.com/content/pdf/10.1007/978-3-540-34469-8_47. Proceedings of the *Sixteenth International Conference on Domain Decomposition Methods*, New York City, January 11–15, 2005.

Kim:2008:DDA

- [Kim08] Hyea Hyun Kim. Domain decomposition algorithms for mortar discretizations. In Langer et al. [LDK⁺08], pages 81–92. CODEN LNCSA6. ISBN 3-540-75198-X (print), 3-540-75199-8 (e-book). ISSN 1439-7358 (print), 2197-7100 (electronic).

LCCN QA402.2 .I55 2006. URL http://link.springer.com/content/pdf/10.1007/978-3-540-75199-1_7. 17th International Conference on Domain Decomposition Methods held at St. Wolfgang/Strobl, Austria, July 3–7, 2006.

Kirsch:2003:IST

- [Kir03] Andreas Kirsch. Inverse scattering theory for time-harmonic waves. In Ainsworth et al. [ADD⁺03], pages 337–365. CODEN LNCSA6. ISBN 3-540-00744-X (print), 3-642-55483-0 (e-book). ISSN 1439-7358 (print), 2197-7100 (electronic). LCCN QC661 .T67 2003. URL http://link.springer.com/content/pdf/10.1007/978-3-642-55483-4_9. Proceedings of the LMS Durham Symposium on Computational Methods for Wave Propagation in Direct Scattering University of Durham, 15–25 July 2002.

Kirby:2012:FNC

- [Kir12] Robert C. Kirby. FIAT: numerical construction of finite element basis functions. In Logg et al. [LMW12a], pages 247–255. CODEN LNCSA6. ISBN 3-642-23098-9 (print), 3-642-23099-7 (e-book). ISSN 1439-7358 (print), 2197-7100 (electronic). LCCN ???? URL http://link.springer.com/content/pdf/10.1007/978-3-642-23099-8_13. The software developed by the FEniCS Project is free for all to use and modify (licensed under the GNU (L)GPL), and so is this book.

Kunugi:2011:LSC

- [KiSO⁺11] Tomoaki Kunugi, Shin ichi Satake, Yasuo Ose, Hiroyuki Yoshida, and Kazuyuki Takase. Large scale computations in nuclear engineering: CFD for multiphase flows and DNS for turbulent flows with/without magnetic field. In Tromeur-Dervout et al. [TDBEE11], pages 3–14. CODEN LNCSA6. ISBN 3-642-14437-3 (print), 3-642-14438-1 (e-book). ISSN 1439-7358 (print), 2197-7100 (electronic). LCCN ???? URL http://link.springer.com/content/pdf/10.1007/978-3-642-14438-7_1. Proceedings of the twentieth meeting, Parallel CFD 2008, held May 19–22, 2008 in Lyon, France.

Kaltenbach:2002:HDI

- [KJ02] H. J. Kaltenbach and A. Jäkel. A hybrid Direct/iterative algorithm for the solution of Poisson’s equation based on the Schur complement method. In Breuer et al. [BDZ02], pages 175–182.

CODEN LNCSA6. ISBN 3-540-42946-8 (print), 3-642-55919-0 (e-book). ISSN 1439-7358 (print), 2197-7100 (electronic). LCCN Q183.9 .I58 2001. URL http://link.springer.com/content/pdf/10.1007/978-3-642-55919-8_20.

Karakashian:2000:DGM

- [KK00] Ohannes Karakashian and Theodoros Katsaounis. A discontinuous Galerkin method for the incompressible Navier–Stokes equations. In Cockburn et al. [CKS00b], pages 157–166. CODEN LNCSA6. ISBN 3-540-66787-3, 3-642-64098-2 (print), 3-642-59721-1 (e-book). ISSN 1439-7358 (print), 2197-7100 (electronic). LCCN TA347.F5 D57 2000. URL http://link.springer.com/chapter/10.1007/978-3-642-59721-3_11/. Papers from the first international symposium on DGM Newport, Rhode Island, USA, May 24–26, 1999.

Kim:2009:PBS

- [KK09a] Eugene Kim and Jang Hyuk Kwon. Prediction of ballistic separation effect by direct calculation of incremental coefficients. In Tuncer et al. [TGEM09], pages 441–447. CODEN LNCSA6. ISBN 3-540-92743-3 (print), 3-540-92744-1 (e-book). ISSN 1439-7358 (print), 2197-7100 (electronic). LCCN ????. URL http://link.springer.com/content/pdf/10.1007/978-3-540-92744-0_55. Parallel CFD 2007 was held in Antalya, Turkey, from May 21 to 24, 2007.

Kornich:2009:CSV

- [KK09b] Heiner Körnich and Erland Källén. Climate sensitivity and variability examined in a global climate model. In Engquist et al. [ELR09], pages 299–302. CODEN LNCSA6. ISBN 3-540-88856-X (paperback), 3-540-88857-8 (e-book). ISSN 1439-7358 (print), 2197-7100 (electronic). LCCN Q183.9 .M86 2009. URL http://link.springer.com/content/pdf/10.1007/978-3-540-88857-4_8. Summer School on Multiscale Modeling and Simulation in Science, Bosön, Lidingö outside Stockholm, Sweden, June 2007.

Kurten:2001:SRC

- [KKJ⁺01] M. Kurten, U. Keller, W. John, K. Meerkotter, and H. Reichl. Symmetrical retarded current source model for transient field coupling on interconnects. In van Rienen et al.

[vRGH01], pages 317–324. CODEN LNCSA6. ISBN 3-540-42173-4 (softcover), 3-642-56470-4 (e-book). ISSN 1439-7358 (print), 2197-7100 (electronic). LCCN TK5 .S35 2001. URL http://link.springer.com/content/pdf/10.1007/978-3-642-56470-3_33. Selected contributions presented at the 3rd International Workshop on Scientific Computing in Electrical Engineering.

Kirby:2012:DOF

- [KKL⁺12] Robert C. Kirby, Matthew Gregg Knepley, Anders Logg, L. Ridgway Scott, and Andy R. Terrel. Discrete optimization of finite element matrix evaluation. In Logg et al. [LMW12a], pages 163–169. CODEN LNCSA6. ISBN 3-642-23098-9 (print), 3-642-23099-7 (e-book). ISSN 1439-7358 (print), 2197-7100 (electronic). LCCN ???? URL http://link.springer.com/content/pdf/10.1007/978-3-642-23099-8_9. The software developed by the FEniCS Project is free for all to use and modify (licensed under the GNU (L)GPL), and so is this book.

Kadinski:2002:BSG

- [KKLD02] L. Kadinski, P. Kaufmann, C. Lindner, and F. Durst. 3D block-structured grid algorithms for the numerical simulation of chemical vapor deposition in horizontal reactors. In Breuer et al. [BDZ02], pages 269–278. CODEN LNCSA6. ISBN 3-540-42946-8 (print), 3-642-55919-0 (e-book). ISSN 1439-7358 (print), 2197-7100 (electronic). LCCN Q183.9 .I58 2001. URL http://link.springer.com/content/pdf/10.1007/978-3-642-55919-8_30.

Kammerer:2014:CMF

- [KKM⁺14] Lutz Kämmerer, Stefan Kunis, Ines Melzer, Daniel Potts, and Toni Volkmer. Computational methods for the Fourier analysis of sparse high-dimensional functions. In Dahlke et al. [DDG⁺14], pages 347–363. ISBN 3-319-08159-4. LCCN ???? URL http://link.springer.com/chapter/10.1007/978-3-319-08159-5_17/.

Kopysov:2005:PDO

- [KKNR05] S. P. Kopysov, I. V. Krasnopyorov, A. K. Novikov, and V. N. Rytchkov. Parallel distributed object-oriented framework for domain decomposition. In Kornhuber et al.

[KHP⁺05], pages 605–614. CODEN LNCSA6. ISBN 3-540-22523-4 (print), 3-540-26825-1 (e-book). ISSN 1439-7358 (print), 2197-7100 (electronic). LCCN QA402.2 .I55 2003. URL http://link.springer.com/content/pdf/10.1007/3-540-26825-1_64. Papers from the 15th International Conference on Domain Decomposition, Freie Universität Berlin (FU), Berlin, Germany, July 21–25, 2003.

Knepley:2006:DGS

[KKS06] Matthew G. Knepley, Richard F. Katz, and Barry Smith. Developing a geodynamics simulator with PETSc. In Bruaset and Tveito [BT06], pages 413–438. CODEN LNCSA6. ISBN 3-540-29076-1 (print), 3-540-31619-1 (e-book). ISSN 1439-7358 (print), 2197-7100 (electronic). LCCN QA377 .N87 2006. URL http://link.springer.com/content/pdf/10.1007/3-540-31619-1_12.

Kim:2000:AFC

[KKY00] Sungye Kim, Hyekyung Ko, and Kyunghyun Yoon. Acceleration of a formfactor calculation through the use of the 2D tree. In Engquist et al. [EJHS00], pages 100–111. CODEN LNCSA6. ISBN 3-540-67264-8 (print), 3-642-57313-4 (e-book). ISSN 1439-7358 (print), 2197-7100 (electronic). LCCN QA76.9.C65 S535 2000. URL http://link.springer.com/chapter/10.1007/978-3-642-57313-2_12/.

Karer:2013:SCM

[KKZ13] E. Karer, J. K. Kraus, and L. T. Zikatanov. A subspace correction method for nearly singular linear elasticity problems. In Bank [Ban13], pages 159–166. ISBN 3-642-35274-X (hardcover), 3-642-35275-8 (e-book). ISSN 1439-7358 (print), 2197-7100 (electronic). LCCN QA402.2 .I58 2011. URL http://link.springer.com/chapter/10.1007/978-3-642-35275-1_17/.

Kim:2005:FDF

[KL05] Hyea Hyun Kim and Chang-Ock Lee. A FETI-DP formulation for two-dimensional Stokes problem on nonmatching grids. In Kornhuber et al. [KHP⁺05], pages 353–360. CODEN LNCSA6. ISBN 3-540-22523-4 (print), 3-540-26825-1 (e-book). ISSN 1439-7358 (print), 2197-7100 (electronic). LCCN QA402.2 .I55 2003. URL http://link.springer.com/content/pdf/10.1007/3-540-26825-1_35. Papers from the

15th International Conference on Domain Decomposition, Freie Universität Berlin (FU), Berlin, Germany, July 21–25, 2003.

Khoromskij:2008:DDB

- [KL08] Boris N. Khoromskij and Alexander Litvinenko. Domain decomposition based H-matrix preconditioners for the skin problem. In Langer et al. [LDK⁺08], pages 175–182. CODEN LNCSA6. ISBN 3-540-75198-X (print), 3-540-75199-8 (e-book). ISSN 1439-7358 (print), 2197-7100 (electronic). LCCN QA402.2 .I55 2006. URL http://link.springer.com/content/pdf/10.1007/978-3-540-75199-1_17. 17th International Conference on Domain Decomposition Methods held at St. Wolfgang/Strobl, Austria, July 3–7, 2006.

Kim:2011:FDF

- [KL11] Hyea Hyun Kim and Chang-Ock Lee. A FETI-DP formation for the Stokes problem without primal pressure components. In Huang et al. [HKWX11], pages 415–422. CODEN LNCSA6. ISBN 3-642-11303-6 (print), 3-642-11304-4 (e-book). ISSN 1439-7358 (print), 2197-7100 (electronic). LCCN QA402.2 .I58 2011. URL http://link.springer.com/content/pdf/10.1007/978-3-642-11304-8_48. Papers presented at the 19th International Conference on Domain Decomposition, DD19, hosted by the School of Mathematics and Computational Science of the Xiangtan University and the Hunan Key Laboratory for Computation and Simulation in Science and Engineering and held in Zhanjiajie, China, August 17–22, 2009.

Kirby:2012:FOC

- [KL12a] Robert C. Kirby and Anders Logg. FErari: an optimizing compiler for variational forms. In Logg et al. [LMW12a], pages 239–246. CODEN LNCSA6. ISBN 3-642-23098-9 (print), 3-642-23099-7 (e-book). ISSN 1439-7358 (print), 2197-7100 (electronic). LCCN ????? URL http://link.springer.com/content/pdf/10.1007/978-3-642-23099-8_12. The software developed by the FEniCS Project is free for all to use and modify (licensed under the GNU (L)GPL), and so is this book.

Kirby:2012:FEM

- [KL12b] Robert C. Kirby and Anders Logg. The finite element method. In Logg et al. [LMW12a], pages 77–94. CODEN

LNCSA6. ISBN 3-642-23098-9 (print), 3-642-23099-7 (e-book). ISSN 1439-7358 (print), 2197-7100 (electronic). LCCN ????. URL http://link.springer.com/content/pdf/10.1007/978-3-642-23099-8_2. The software developed by the FEniCS Project is free for all to use and modify (licensed under the GNU (L)GPL), and so is this book.

Kirby:2012:FEV

- [KL12c] Robert C. Kirby and Anders Logg. Finite element variational forms. In Logg et al. [LMW12a], pages 133–140. CODEN LNCSA6. ISBN 3-642-23098-9 (print), 3-642-23099-7 (e-book). ISSN 1439-7358 (print), 2197-7100 (electronic). LCCN ????. URL http://link.springer.com/content/pdf/10.1007/978-3-642-23099-8_5. The software developed by the FEniCS Project is free for all to use and modify (licensed under the GNU (L)GPL), and so is this book.

Kirby:2012:TRF

- [KL12d] Robert C. Kirby and Anders Logg. Tensor representation of finite element variational forms. In Logg et al. [LMW12a], pages 159–162. CODEN LNCSA6. ISBN 3-642-23098-9 (print), 3-642-23099-7 (e-book). ISSN 1439-7358 (print), 2197-7100 (electronic). LCCN ????. URL http://link.springer.com/content/pdf/10.1007/978-3-642-23099-8_8. The software developed by the FEniCS Project is free for all to use and modify (licensed under the GNU (L)GPL), and so is this book.

Kramer:2015:FEB

- [KL15] Stephan C. Kramer and Gert Lube. Finite element-boundary element methods for dielectric relaxation spectroscopy. In Abdulle et al. [ADK⁺15], pages 47–56. ISBN 3-319-10704-6 (paperback), 3-319-10705-4 (e-book). ISSN 1439-7358 (print), 2197-7100 (electronic). LCCN QA76.9.M35 .E976 2015. URL http://link.springer.com/chapter/10.1007/978-3-319-10705-9_4/.

Knopp:2005:ISM

- [KLGR05] Tobias Knopp, Gert Lube, Ralf Gritzki, and Markus Rösler. Iterative substructuring methods for indoor air flow simulation. In Kornhuber et al. [KHP⁺05], pages 209–216. CODEN LNCSA6. ISBN 3-540-22523-4 (print), 3-540-26825-1 (e-book). ISSN 1439-7358 (print), 2197-7100 (electronic). LCCN

QA402.2 .I55 2003. URL http://link.springer.com/content/pdf/10.1007/3-540-26825-1_18. Papers from the 15th International Conference on Domain Decomposition, Freie Universität Berlin (FU), Berlin, Germany, July 21–25, 2003.

Kassinis:2007:CEL

- [KLIM07] Stavros C. Kassinis, Carlos A. Langer, Gianluca Iaccarino, and Parviz Moin, editors. *Complex Effects in Large Eddy Simulations*, volume 56 of *Lecture Notes in Computational Science and Engineering*. Springer-Verlag Inc., New York, NY, USA, 2007. CODEN LNCSA6. ISBN 3-540-34233-8 (print), 3-540-34234-6 (e-book). ISSN 1439-7358 (print), 2197-7100 (electronic). LCCN TA357.5.T87 C66 2007. URL <http://link.springer.com/book/10.1007/978-3-540-34234-2>; <http://www.springerlink.com/content/978-3-540-34234-2>. Proceedings of the symposium on *Complex Effects in Large Eddy Simulation* held in Lemesos (Limassol), Cyprus, September 21–24, 2005.

Klocke:2001:STR

- [Klo01a] M. Klocke. The “Modified Trapezoidal Rule” (θ -Method) for the integration of DAEs modelling an electro-mechanical drive including external circuitry and magnetic field-distribution. In van Rienen et al. [vRGH01], pages 397–405. CODEN LNCSA6. ISBN 3-540-42173-4 (softcover), 3-642-56470-4 (e-book). ISSN 1439-7358 (print), 2197-7100 (electronic). LCCN TK5 .S35 2001. URL http://link.springer.com/content/pdf/10.1007/978-3-642-56470-3_40. Selected contributions presented at the 3rd International Workshop on Scientific Computing in Electrical Engineering.

Klocke:2001:MTR

- [Klo01b] M. Klocke. The “Modified Trapezoidal Rule” (theta-method) for the integration of DAEs modelling an electro-mechanical drive including external circuitry and magnetic field-distribution. In van Rienen et al. [vRGH01], pages 397–406. CODEN LNCSA6. ISBN 3-540-42173-4 (softcover), 3-642-56470-4 (e-book). ISSN 1439-7358 (print), 2197-7100 (electronic). LCCN TK5 .S35 2001. URL <http://link.springer.com/book/10.1007/978-3-642-56470-3>; <http://www.springerlink.com/content/978-3-642-56470-3>. Selected contributions presented at the 3rd International Workshop on Scientific Computing in Electrical Engineering.

Kim:2014:RAD

- [KLP14] Hyea Hyun Kim, Chang-Ock Lee, and Eun-Hee Park. Recent advances in domain decomposition methods for the Stokes problem. In Erhel et al. [EGH⁺14], pages 59–70. ISBN 3-319-05788-X (paperback), 3-319-05789-8 (e-book). ISSN 1439-7358 (print), 2197-7100 (electronic). LCCN QA71-90. URL http://link.springer.com/chapter/10.1007/978-3-319-05789-7_5/.

Klawonn:2015:HMO

- [KLR⁺15] Axel Klawonn, Martin Lanser, Oliver Rheinbach, Holger Stengel, and Gerhard Wellein. Hybrid MPI/OpenMP parallelization in FETI-DP methods. In Mehl et al. [MBS15], pages 67–84. ISBN 3-319-22996-6, 3-319-22997-4 (e-book). LCCN QA71-90; TA329. URL http://link.springer.com/chapter/10.1007/978-3-319-22997-3_4/.

Klawonn:2014:ACS

- [KLRR14] Axel Klawonn, Martin Lanser, Patrick Radtke, and Oliver Rheinbach. On an adaptive coarse space and on nonlinear domain decomposition. In Erhel et al. [EGH⁺14], pages 71–83. ISBN 3-319-05788-X (paperback), 3-319-05789-8 (e-book). ISSN 1439-7358 (print), 2197-7100 (electronic). LCCN QA71-90. URL http://link.springer.com/chapter/10.1007/978-3-319-05789-7_6/.

Kirby:2012:CUF

- [KLRT12] Robert C. Kirby, Anders Logg, Marie E. Rognes, and Andy R. Terrel. Common and unusual finite elements. In Logg et al. [LMW12a], pages 95–119. CODEN LNCSA6. ISBN 3-642-23098-9 (print), 3-642-23099-7 (e-book). ISSN 1439-7358 (print), 2197-7100 (electronic). LCCN ???? URL http://link.springer.com/content/pdf/10.1007/978-3-642-23099-8_3. The software developed by the FEniCS Project is free for all to use and modify (licensed under the GNU (L)GPL), and so is this book.

Kjeldstad:2003:SSB

- [KLS03] A. Kjeldstad, H. P. Langtangen, and J. Skogseid. Simulation of sedimentary basins. In Langtangen and Tveito [LT03], pages 611–658. CODEN LNCSA6. ISBN 3-540-01438-1 (print), 3-642-18237-2 (e-book). ISSN 1439-7358 (print), 2197-7100 (electronic). LCCN QA377 .A45

2003. URL http://link.springer.com/content/pdf/10.1007/978-3-642-18237-2_15.

Kevrekidis:2004:NDA

- [KLY04] Ioannis G. Kevrekidis, Ju Li, and Sidney Yip. Nonlinear dynamics analysis through molecular dynamics simulations. In Attinger and Koumoutsakos [AK04], pages 69–79. CODEN LNCSA6. ISBN 3-540-21180-2 (print), 3-642-18756-0 (e-book). ISSN 1439-7358 (print), 2197-7100 (electronic). LCCN TA342 .M85 2004. URL http://link.springer.com/content/pdf/10.1007/978-3-642-18756-8_4. Proceedings of a Summer Program in Multi-Scale Modelling and Simulation held in Lugano, Switzerland, between August 4th and 30th, 2003.

Kirby:2012:CGR

- [KM12a] Robert C. Kirby and Kent-Andre Mardal. Constructing general reference finite elements. In Logg et al. [LMW12a], pages 121–132. CODEN LNCSA6. ISBN 3-642-23098-9 (print), 3-642-23099-7 (e-book). ISSN 1439-7358 (print), 2197-7100 (electronic). LCCN ???? URL http://link.springer.com/content/pdf/10.1007/978-3-642-23099-8_4. The software developed by the FEniCS Project is free for all to use and modify (licensed under the GNU (L)GPL), and so is this book.

Kulshreshtha:2012:CDM

- [KM12b] Kshitij Kulshreshtha and Jan Marburger. Computing derivatives in a meshless simulation using permutations in ADOL-C. In Forth et al. [FHP⁺12], pages 321–331. CODEN LNCSA6. ISBN 3-642-30022-7 (print), 3-642-30023-5 (e-book). ISSN 1439-7358 (print), 2197-7100 (electronic). LCCN ???? URL http://link.springer.com/content/pdf/10.1007/978-3-642-30023-3_29. Proceedings of the Sixth International Conference on Automatic Differentiation (AD2012) held July 23–27, 2012, in Fort Collins, Colorado, USA.

Knezevic:2013:HPI

- [KMR13] Jovana Knezević, Ralf-Peter Mundani, and Ernst Rank. A high-performance interactive computing framework for engineering applications. In Bader et al. [BBW13], pages 177–199. ISBN 3-642-38761-6, 3-642-38762-4 (e-book). ISSN 1439-7358 (print), 2197-7100 (electronic). LCCN ???? URL <http://>

link.springer.com/chapter/10.1007/978-3-642-38762-3_9/.

Kako:2002:ESM

- [KN02] Takashi Kako and Haniffa M. Nasir. Essential spectrum and mixed type finite element method. In Babuška et al. [BCM02], pages 155–167. CODEN LNCSA6. ISBN 3-540-42399-0 (print), 3-642-56288-4 (e-book). ISSN 1439-7358 (print), 2197-7100 (electronic). LCCN QA808.2 .I59 2000. URL http://link.springer.com/content/pdf/10.1007/978-3-642-56288-4_11.

Keller:2011:ASP

- [KN11] Franz Keller and Ulrich Nieken. Application of smoothed particle hydrodynamics to structure formation in chemical engineering. In Griebel and Schweitzer [GS11c], pages 125–140. CODEN LNCSA6. ISBN 3-642-16228-2 (print), 3-642-16229-0 (e-book). ISSN 1439-7358 (print), 2197-7100 (electronic). LCCN ????. URL http://link.springer.com/content/pdf/10.1007/978-3-642-16229-9_8. Proceedings of the Fifth International Workshop on Meshfree Methods for Partial Differential Equations held from August 17 to August 19, 2009 in Bonn, Germany.

Knobloch:2009:ALP

- [Kno09] Petr Knobloch. On the application of local projection methods to convection-diffusion-reaction problems. In Hegarty et al. [HKOS09], pages 183–194. CODEN LNCSA6. ISBN 3-642-00604-3 (print), 3-642-00605-1 (e-book). ISSN 1439-7358 (print), 2197-7100 (electronic). LCCN ????. URL http://link.springer.com/content/pdf/10.1007/978-3-642-00605-0_14.

Kako:2008:NMW

- [KO08] Takashi Kako and Yoshiharu Ohi. Numerical method for wave propagation problem by FDTD method with PML. In Langer et al. [LDK⁺08], pages 551–558. CODEN LNCSA6. ISBN 3-540-75198-X (print), 3-540-75199-8 (e-book). ISSN 1439-7358 (print), 2197-7100 (electronic). LCCN QA402.2 .I55 2006. URL http://link.springer.com/content/pdf/10.1007/978-3-540-75199-1_69. 17th International Conference on Domain Decomposition Methods held at St. Wolfgang/Strobl, Austria, July 3–7, 2006.

Kako:2011:NMA

- [KO11] Takashi Kako and Yoshiharu Ohi. Numerical method for antenna radiation problem by FDTD method with PML. In Huang et al. [HKWX11], pages 359–365. CODEN LNCSA6. ISBN 3-642-11303-6 (print), 3-642-11304-4 (e-book). ISSN 1439-7358 (print), 2197-7100 (electronic). LCCN QA402.2 .I58 2011. URL http://link.springer.com/content/pdf/10.1007/978-3-642-11304-8_41. Papers presented at the 19th International Conference on Domain Decomposition, DD19, hosted by the School of Mathematics and Computational Science of the Xiangtan University and the Hunan Key Laboratory for Computation and Simulation in Science and Engineering and held in Zhanjiajie, China, August 17–22, 2009.

Koning:2000:AVR

- [Kon00] A. H. J. Koning. Applications of volume rendering in the CAVE. In Engquist et al. [EJHS00], pages 112–121. CODEN LNCSA6. ISBN 3-540-67264-8 (print), 3-642-57313-4 (e-book). ISSN 1439-7358 (print), 2197-7100 (electronic). LCCN QA76.9.C65 S535 2000. URL <http://link.springer.com/book/10.1007/978-3-642-57313-2>; <http://www.pdc.kth.se/conference/2000/>; <http://www.springerlink.com/content/978-3-642-57313-2>.

Kornhuber:1998:RMM

- [Kor98] Ralf Kornhuber. On robust multigrid methods for non-smooth variational problems. In Hackbusch and Wittum [HW98], pages 173–188. CODEN LNCSA6. ISBN 3-540-63133-X (softcover), 3-642-58734-8 (e-book). ISSN 1439-7358 (print), 2197-7100 (electronic). LCCN QA377 .E94 1996. URL http://link.springer.com/chapter/10.1007/978-3-642-58734-4_10/.

Kroner:1999:IRD

- [KOR99] Dietmar Kröner, Mario Ohlberger, and Christian Rohde, editors. *An Introduction to Recent Developments in Theory and Numerics for Conservation Laws: Proceedings of the International School on Theory and Numerics for Conservation Laws, Freiburg/Littenweiler, October 20–24, 1997*, volume 5 of *Lecture Notes in Computational Science and Engineering*. Springer-Verlag Inc., New York, NY, USA, 1999. CODEN LNCSA6. ISBN 3-540-65081-4 (print),

3-642-58535-3 (e-book). ISSN 1439-7358 (print), 2197-7100 (electronic). LCCN QA901.I525 1997. URL <http://link.springer.com/book/10.1007/978-3-642-58535-7>; <http://www.springerlink.com/content/978-3-642-58535-7>.

Koyama:2011:PSM

- [Koy11] Daisuke Koyama. A parallel Schwarz method for multiple scattering problems. In Huang et al. [HKWX11], pages 351–358. CODEN LNCSA6. ISBN 3-642-11303-6 (print), 3-642-11304-4 (e-book). ISSN 1439-7358 (print), 2197-7100 (electronic). LCCN QA402.2 .I58 2011. URL http://link.springer.com/content/pdf/10.1007/978-3-642-11304-8_40. Papers presented at the 19th International Conference on Domain Decomposition, DD19, hosted by the School of Mathematics and Computational Science of the Xiangtan University and the Hunan Key Laboratory for Computation and Simulation in Science and Engineering and held in Zhanjiajie, China, August 17–22, 2009.

Kamga:2007:NQS

- [KP07a] J.-B. Apoung Kamga and Olivier Pironneau. A numerical quadrature for the schwarz-chimera method. In Widlund and Keyes [WK07], pages 455–462. CODEN LNCSA6. ISBN 3-540-34468-3 (print), 3-540-34469-1 (e-book). ISSN 1439-7358 (print), 2197-7100 (electronic). LCCN QA402.2 .I55 2005. URL http://link.springer.com/content/pdf/10.1007/978-3-540-34469-8_57. Proceedings of the *Sixteenth International Conference on Domain Decomposition Methods*, New York City, January 11–15, 2005.

Klawonn:2007:MFN

- [KP07b] Axel Klawonn and Kendall Pierson. MINISYMPOSIUM 7: FETI and Neumann–Neumann methods with primal constraints. In Widlund and Keyes [WK07], page 347. CODEN LNCSA6. ISBN 3-540-34468-3 (print), 3-540-34469-1 (e-book). ISSN 1439-7358 (print), 2197-7100 (electronic). LCCN QA402.2 .I55 2005. URL http://link.springer.com/content/pdf/10.1007/978-3-540-34469-8_42. Proceedings of the *Sixteenth International Conference on Domain Decomposition Methods*, New York City, January 11–15, 2005.

Koch:2009:MSS

- [KP09] Erik Koch and Eva Pavarini. Multiple scales in solid state physics. In Engquist et al. [ELR09], pages 295–298. CODEN LNCSA6. ISBN 3-540-88856-X (paperback), 3-540-88857-8 (e-book). ISSN 1439-7358 (print), 2197-7100 (electronic). LCCN Q183.9 .M86 2009. URL http://link.springer.com/content/pdf/10.1007/978-3-540-88857-4_7. Summer School on Multiscale Modeling and Simulation in Science, Bosön, Lidingö outside Stockholm, Sweden, June 2007.

Khakhutskyy:2014:ADM

- [KP14] Valeriy Khakhutskyy and Dirk Pflüger. Alternating direction method of multipliers for hierarchical basis approximators. In Garcke and Pflüger [GP14], pages 221–238. ISBN 3-319-04536-9 (paperback), 3-319-04537-7 (e-book). LCCN QA188 .S63 2013. URL http://link.springer.com/chapter/10.1007/978-3-319-04537-5_9/.

Kowitz:2013:CTI

- [KPJ13] Christoph Kowitz, Dirk Pflüger, and Frank Jenko. The combination technique for the initial value problem in linear gyrokinetics. In Garcke and Griebel [GG13], pages 205–222. CODEN LNCSA6. ISBN 3-642-31702-2 (print), 3-642-31703-0 (e-book). ISSN 1439-7358 (print), 2197-7100 (electronic). LCCN ????. URL http://link.springer.com/content/pdf/10.1007/978-3-642-31703-3_10. Proceedings of workshop in Bonn, Germany, from May 16–20, 2011.

Kurz:1999:CPC

- [KPM99] M. Kurz, A. Pusztai, and G. Müller. CrysVUN++, a powerful computer code for global thermal modelling of industrial crystal growth processes. In Bungartz et al. [BDZ99], pages 255–266. CODEN LNCSA6. ISBN 3-540-65730-4 (print), 3-642-60155-3 (e-book). ISSN 1439-7358 (print), 2197-7100 (electronic). LCCN Q183.9.I58 1998. URL http://link.springer.com/chapter/10.1007/978-3-642-60155-2_22/.

Korner:2006:PLB

- [KPR⁺06] Carolin Körner, Thomas Pohl, Ulrich Rüde, Nils Thürey, and Thomas Zeiser. Parallel lattice Boltzmann methods for CFD applications. In Bruaset and Tveito [BT06], pages 439–466. CODEN LNCSA6. ISBN 3-540-29076-1 (print), 3-540-31619-1 (e-book). ISSN 1439-7358 (print), 2197-7100 (electronic).

LCCN QA377 .N87 2006. URL http://link.springer.com/content/pdf/10.1007/3-540-31619-1_13.

Kaltenbacher:2000:AMS

- [KR00] Manfred Kaltenbacher and Stefan Reitzinger. Algebraic multigrid for solving electromechanical problems. In Dick et al. [DRV00], pages 129–135. CODEN LNCSA6. ISBN 3-540-67157-9 (print), 3-642-58312-1 (e-book). ISSN 1439-7358 (print), 2197-7100 (electronic). LCCN QA377 .E94 1999. URL http://link.springer.com/chapter/10.1007/978-3-642-58312-4_17/.

Korvink:2005:OBC

- [KR05] Jan G. Korvink and Evgenii B. Rudnyi. Oberwolfach benchmark collection. In Benner et al. [BMS05c], pages 311–315. CODEN LNCSA6. ISBN 3-540-24545-6 (print), 3-540-27909-1 (e-book). ISSN 1439-7358 (print), 2197-7100 (electronic). LCCN TA347.C68 D56 2005. URL http://link.springer.com/content/pdf/10.1007/3-540-27909-1_11.

Klawonn:2007:SCR

- [KR07] Axel Klawonn and Oliver Rheinbach. Some computational results for robust FETI-DP methods applied to heterogeneous elasticity problems in 3D. In Widlund and Keyes [WK07], pages 389–396. CODEN LNCSA6. ISBN 3-540-34468-3 (print), 3-540-34469-1 (e-book). ISSN 1439-7358 (print), 2197-7100 (electronic). LCCN QA402.2 .I55 2005. URL http://link.springer.com/content/pdf/10.1007/978-3-540-34469-8_48. Proceedings of the *Sixteenth International Conference on Domain Decomposition Methods*, New York City, January 11–15, 2005.

Korneev:2008:FDD

- [KR08] Vadim Korneev and A. Rytov. Fast domain decomposition algorithms for discretizations of 3-D elliptic equations by spectral elements. In Langer et al. [LDK⁺08], pages 559–565. CODEN LNCSA6. ISBN 3-540-75198-X (print), 3-540-75199-8 (e-book). ISSN 1439-7358 (print), 2197-7100 (electronic). LCCN QA402.2 .I55 2006. URL http://link.springer.com/content/pdf/10.1007/978-3-540-75199-1_70. 17th International Conference on Domain Decomposition Methods held at St. Wolfgang/Strobl, Austria, July 3–7, 2006.

Klimach:2009:PCH

- [KR09] Harald Klimach and Sabine P. Roller. Parallel coupling of heterogeneous domains with KOP3D using PACX-MPI. In Tuncer et al. [TGEM09], pages 339–345. CODEN LNCSA6. ISBN 3-540-92743-3 (print), 3-540-92744-1 (e-book). ISSN 1439-7358 (print), 2197-7100 (electronic). LCCN ???? URL http://link.springer.com/content/pdf/10.1007/978-3-540-92744-0_42. Parallel CFD 2007 was held in Antalya, Turkey, from May 21 to 24, 2007.

Krause:2008:MSC

- [Kra08] Rolf Krause. On the multiscale solution of constrained minimization problems. In Langer et al. [LDK⁺08], pages 93–104. CODEN LNCSA6. ISBN 3-540-75198-X (print), 3-540-75199-8 (e-book). ISSN 1439-7358 (print), 2197-7100 (electronic). LCCN QA402.2 .I55 2006. URL http://link.springer.com/content/pdf/10.1007/978-3-540-75199-1_8. 17th International Conference on Domain Decomposition Methods held at St. Wolfgang/Strobl, Austria, July 3–7, 2006.

Kremer:2004:MAP

- [Kre04] Kurt Kremer. Multiscale aspects of polymer simulations. In Attinger and Koumoutsakos [AK04], pages 105–119. CODEN LNCSA6. ISBN 3-540-21180-2 (print), 3-642-18756-0 (e-book). ISSN 1439-7358 (print), 2197-7100 (electronic). LCCN TA342 .M85 2004. URL http://link.springer.com/content/pdf/10.1007/978-3-642-18756-8_7. Proceedings of a Summer Program in Multi-Scale Modelling and Simulation held in Lugano, Switzerland, between August 4th and 30th, 2003.

Kressner:2005:FM

- [Kre05a] Daniel Kressner. Front matter. In *Numerical Methods for General and Structured Eigenvalue Problems* [Kre05b], pages i–xiv. CODEN LNCSA6. ISBN 3-540-24546-4 (print), 3-540-28502-4 (e-book). ISSN 1439-7358 (print), 2197-7100 (electronic). LCCN QA193 .K745 2005. URL <http://link.springer.com/content/pdf/bfm:978-3-540-28502-1/1>.

Kressner:2005:NMG

- [Kre05b] Daniel Kressner. *Numerical Methods for General and Structured Eigenvalue Problems*, volume 46 of *Lecture Notes in*

Computational Science and Engineering. Springer-Verlag Inc., New York, NY, USA, 2005. CODEN LNCSA6. ISBN 3-540-24546-4 (print), 3-540-28502-4 (e-book). ISSN 1439-7358 (print), 2197-7100 (electronic). xiv + 258 pp. LCCN QA193 .K745 2005. URL <http://link.springer.com/book/10.1007/3-540-28502-4>; <http://www.cs.umu.se/~kressner/book.php>.

Krehl:2009:FM

- [Kre09] Peter O. K. Krehl. Front matter. In *Computational partial differential equations: numerical methods and Diffpack programming* [Lan03a], pages i–xxii. ISBN 3-540-43416-X (softcover), 3-642-55769-4 (e-book). ISSN 1611-0994. LCCN QA377 .L355 2003. URL <http://link.springer.com/content/pdf/bfm:978-3-540-30421-0/1>.

Kroll:2002:MIF

- [Kro02] N Kroll. MEGAFLOW — an industrial flow simulation tool for aircraft applications. In Breuer et al. [BDZ02], pages 21–28. CODEN LNCSA6. ISBN 3-540-42946-8 (print), 3-642-55919-0 (e-book). ISSN 1439-7358 (print), 2197-7100 (electronic). LCCN Q183.9 .I58 2001. URL http://link.springer.com/content/pdf/10.1007/978-3-642-55919-8_2.

Klawonn:2008:EIF

- [KRP08] Axel Klawonn, Oliver Rheinbach, and Luca F. Pavarino. Exact and inexact FETI–DP methods for spectral elements in two dimensions. In Langer et al. [LDK⁺08], pages 279–286. CODEN LNCSA6. ISBN 3-540-75198-X (print), 3-540-75199-8 (e-book). ISSN 1439-7358 (print), 2197-7100 (electronic). LCCN QA402.2 .I55 2006. URL http://link.springer.com/content/pdf/10.1007/978-3-540-75199-1_32. 17th International Conference on Domain Decomposition Methods held at St. Wolfgang/Strobl, Austria, July 3–7, 2006.

Karmann:2006:FSI

- [KRSS06] Peter Karmann, Rudolf A. Römer, Michael Schreiber, and Peter Stollmann. Fine structure of the integrated density of states for Bernoulli–Anderson models. In Hoffmann and Meyer [HM06], pages 267–280. CODEN LNCSA6. ISBN 3-540-33539-0 (print), 3-540-33541-2 (e-book). ISSN 1439-7358 (print), 2197-7100 (electronic). LCCN QA76.58 .P358

2006. URL http://link.springer.com/content/pdf/10.1007/3-540-33541-2_15.

Kulkarni:2007:DFG

- [KRT07] Deepak V. Kulkarni, Dimitrios V. Rovas, and Daniel A. Torelli. A discontinuous Galerkin formulation for solution of parabolic equations on nonconforming meshes. In Widlund and Keyes [WK07], pages 651–658. CODEN LNCSA6. ISBN 3-540-34468-3 (print), 3-540-34469-1 (e-book). ISSN 1439-7358 (print), 2197-7100 (electronic). LCCN QA402.2 .I55 2005. URL http://link.springer.com/content/pdf/10.1007/978-3-540-34469-8_81. Proceedings of the *Sixteenth International Conference on Domain Decomposition Methods*, New York City, January 11–15, 2005.

Kiesel:2014:VSF

- [KRU14] Rüdiger Kiesel, Andreas Rupp, and Karsten Urban. Valuation of structured financial products by adaptive multiwavelet methods in high dimensions. In Dahlke et al. [DDG⁺14], pages 321–345. ISBN 3-319-08159-4. LCCN ????. URL http://link.springer.com/chapter/10.1007/978-3-319-08159-5_16/.

Klawonn:2005:SCR

- [KRW05] Axel Klawonn, Oliver Rheinbach, and Olof B. Widlund. Some computational results for dual-primal FETI methods for elliptic problems in 3D. In Kornhuber et al. [KHP⁺05], pages 361–368. CODEN LNCSA6. ISBN 3-540-22523-4 (print), 3-540-26825-1 (e-book). ISSN 1439-7358 (print), 2197-7100 (electronic). LCCN QA402.2 .I55 2003. URL http://link.springer.com/content/pdf/10.1007/3-540-26825-1_36. Papers from the 15th International Conference on Domain Decomposition, Freie Universität Berlin (FU), Berlin, Germany, July 21–25, 2003.

Klawonn:2007:DPI

- [KRW07] Axel Klawonn, Oliver Rheinbach, and Barbara Wohlmuth. Dual-primal iterative substructuring for almost incompressible elasticity. In Widlund and Keyes [WK07], pages 397–404. CODEN LNCSA6. ISBN 3-540-34468-3 (print), 3-540-34469-1 (e-book). ISSN 1439-7358 (print), 2197-7100 (electronic). LCCN QA402.2 .I55 2005. URL http://link.springer.com/content/pdf/10.1007/978-3-540-34469-8_49. Pro-

ceedings of the *Sixteenth International Conference on Domain Decomposition Methods*, New York City, January 11–15, 2005.

Krzyzanowski:2005:DDD

- [Krz05] Piotr Krzyzanowski. Domain decomposition for discontinuous Galerkin method with application to Stokes flow. In Kornhuber et al. [KHP⁺05], pages 623–630. CODEN LNCSA6. ISBN 3-540-22523-4 (print), 3-540-26825-1 (e-book). ISSN 1439-7358 (print), 2197-7100 (electronic). LCCN QA402.2 .I55 2003. URL http://link.springer.com/content/pdf/10.1007/3-540-26825-1_66. Papers from the 15th International Conference on Domain Decomposition, Freie Universität Berlin (FU), Berlin, Germany, July 21–25, 2003.

Krzyzanowski:2009:PGS

- [Krz09] Piotr Krzyzanowski. On preconditioners for generalized saddle point problems with an indefinite block. In Bercovier et al. [BGKW09], pages 299–306. CODEN LNCSA6. ISBN 3-642-02676-1 (print), 3-642-02677-X (e-book). ISSN 1439-7358 (print), 2197-7100 (electronic). LCCN QA402.2 .I54 2009. URL http://link.springer.com/content/pdf/10.1007/978-3-642-02677-5_33.

Krechel:1998:ODI

- [KS98] A. Krechel and K. Stüben. Operator dependent interpolation in algebraic multigrid. In Hackbusch and Wittum [HW98], pages 189–211. CODEN LNCSA6. ISBN 3-540-63133-X (softcover), 3-642-58734-8 (e-book). ISSN 1439-7358 (print), 2197-7100 (electronic). LCCN QA377 .E94 1996. URL http://link.springer.com/chapter/10.1007/978-3-642-58734-4_11/.

Kanschat:2000:PEE

- [KS00] Guido Kanschat and Franz-Theo Suttmeier. A posteriori error estimate in the case of insufficient regularity of the discrete space. In Cockburn et al. [CKS00b], pages 349–354. CODEN LNCSA6. ISBN 3-540-66787-3, 3-642-64098-2 (print), 3-642-59721-1 (e-book). ISSN 1439-7358 (print), 2197-7100 (electronic). LCCN TA347.F5 D57 2000. URL http://link.springer.com/chapter/10.1007/978-3-642-59721-3_32/. Papers from the first international symposium on DGM Newport, Rhode Island, USA, May 24–26, 1999.

Kawarada:2002:MPF

- [KS02a] Hideo Kawarada and Hiroshi Suito. Multi-phase flow with reaction. In Babuška et al. [BCM02], pages 39–56. CODEN LNCSA6. ISBN 3-540-42399-0 (print), 3-642-56288-4 (e-book). ISSN 1439-7358 (print), 2197-7100 (electronic). LCCN QA808.2 .I59 2000. URL http://link.springer.com/content/pdf/10.1007/978-3-642-56288-4_4.

Knabner:2002:AHM

- [KS02b] P. Knabner and E. Schneid. Adaptive hybrid mixed finite element discretization of instationary variably Saturated flow in porous media. In Breuer et al. [BDZ02], pages 37–44. CODEN LNCSA6. ISBN 3-540-42946-8 (print), 3-642-55919-0 (e-book). ISSN 1439-7358 (print), 2197-7100 (electronic). LCCN Q183.9 .I58 2001. URL http://link.springer.com/content/pdf/10.1007/978-3-642-55919-8_4.

Kuepfer:2004:MGE

- [KS04] Lars Kuepfer and Uwe Sauer. Modelling gene expression using stochastic simulation. In Attinger and Koumoutsakos [AK04], pages 259–268. CODEN LNCSA6. ISBN 3-540-21180-2 (print), 3-642-18756-0 (e-book). ISSN 1439-7358 (print), 2197-7100 (electronic). LCCN TA342 .M85 2004. URL http://link.springer.com/content/pdf/10.1007/978-3-642-18756-8_20. Proceedings of a Summer Program in Multi-Scale Modelling and Simulation held in Lugano, Switzerland, between August 4th and 30th, 2003.

Krause:2005:FSC

- [KS05] Rolf Krause and Oliver Sander. Fast solving of contact problems on complicated geometries. In Kornhuber et al. [KHP⁺05], pages 495–502. CODEN LNCSA6. ISBN 3-540-22523-4 (print), 3-540-26825-1 (e-book). ISSN 1439-7358 (print), 2197-7100 (electronic). LCCN QA402.2 .I55 2003. URL http://link.springer.com/content/pdf/10.1007/3-540-26825-1_51. Papers from the 15th International Conference on Domain Decomposition, Freie Universität Berlin (FU), Berlin, Germany, July 21–25, 2003.

Kimn:2007:OOB

- [KS07] Jung-Han Kimn and Marcus Sarkis. OBDD: Overlapping balancing domain decomposition methods and generalizations to the Helmholtz equation. In Widlund and Keyes

[WK07], pages 317–324. CODEN LNCSA6. ISBN 3-540-34468-3 (print), 3-540-34469-1 (e-book). ISSN 1439-7358 (print), 2197-7100 (electronic). LCCN QA402.2 .I55 2005. URL http://link.springer.com/content/pdf/10.1007/978-3-540-34469-8_38. Proceedings of the *Sixteenth International Conference on Domain Decomposition Methods*, New York City, January 11–15, 2005.

Kaxiras:2009:MSC

[KS09a] Efthimios Kaxiras and Sauro Succi. Multiscale simulations of complex systems: computation meets reality. In Yip and Diaz de la Rubia [YD09], pages 59–65. CODEN LNCSA6. ISBN 1-4020-9740-9 (print), 1-4020-9741-7 (e-book). ISSN 1439-7358 (print), 2197-7100 (electronic). LCCN ???? URL http://link.springer.com/content/pdf/10.1007/978-1-4020-9741-6_6. Previously published in *Scientific Modeling and Simulations*, Volume 15, Issues 1–3, 2008.

Kluwick:2009:HRN

[KS09b] Alfred Kluwick and Bernhard Scheichl. High-Reynolds-number asymptotics of turbulent boundary layers. In Hegarty et al. [HKOS09], pages 3–22. CODEN LNCSA6. ISBN 3-642-00604-3 (print), 3-642-00605-1 (e-book). ISSN 1439-7358 (print), 2197-7100 (electronic). LCCN ???? URL http://link.springer.com/content/pdf/10.1007/978-3-642-00605-0_1.

Knezevic:2009:DMA

[KS09c] David J. Knezevic and Endre Süli. A deterministic multiscale approach for simulating dilute polymeric fluids. In Hegarty et al. [HKOS09], pages 23–38. CODEN LNCSA6. ISBN 3-642-00604-3 (print), 3-642-00605-1 (e-book). ISSN 1439-7358 (print), 2197-7100 (electronic). LCCN ???? URL http://link.springer.com/content/pdf/10.1007/978-3-642-00605-0_2.

Koko:2011:UDD

[KS11] Jonas Koko and Taoufik Sassi. An Uzawa domain decomposition method for Stokes problem. In Huang et al. [HKWX11], pages 383–390. CODEN LNCSA6. ISBN 3-642-11303-6 (print), 3-642-11304-4 (e-book). ISSN 1439-7358 (print), 2197-7100 (electronic). LCCN QA402.2 .I58 2011. URL http://link.springer.com/content/pdf/10.1007/978-3-642-11304-8_44. Papers presented at the 19th

International Conference on Domain Decomposition, DD19, hosted by the School of Mathematics and Computational Science of the Xiangtan University and the Hunan Key Laboratory for Computation and Simulation in Science and Engineering and held in Zhanjiajie, China, August 17–22, 2009.

Kimn:2013:SLR

- [KS13] Jung-Han Kimn and Marcus Sarkis. Shifted Laplacian RAS solvers for the Helmholtz equation. In Bank [Ban13], pages 151–158. ISBN 3-642-35274-X (hardcover), 3-642-35275-8 (e-book). ISSN 1439-7358 (print), 2197-7100 (electronic). LCCN QA402.2 .I58 2011. URL http://link.springer.com/chapter/10.1007/978-3-642-35275-1_16/.

Karasiev:2014:IFT

- [KSC⁺14] Valentin V. Karasiev, Travis Sjoström, Debajit Chakraborty, James W. Dufty, Keith Runge, Frank E. Harris, and S. B. Trickey. Innovations in finite-temperature density functionals. In Graziani et al. [GDRT14b], pages 61–85. ISBN 3-319-04912-7. ISSN 1439-7358 (print), 2197-7100 (electronic). LCCN QA71-90. URL http://link.springer.com/chapter/10.1007/978-3-319-04912-0_3/.

Kendall:2006:PPM

- [KSG⁺06] Ricky A. Kendall, Masha Sosonkina, William D. Gropp, Robert W. Numrich, and Thomas Sterling. Parallel programming models applicable to cluster computing and beyond. In Bruaset and Tveito [BT06], pages 3–54. CODEN LNCSA6. ISBN 3-540-29076-1 (print), 3-540-31619-1 (e-book). ISSN 1439-7358 (print), 2197-7100 (electronic). LCCN QA377 .N87 2006. URL http://link.springer.com/content/pdf/10.1007/3-540-31619-1_1.

Kucken:2000:SVC

- [KSGW00] Martin Kücken, Ulrich Schättler, Friedrich-Wilhelm Gerstengarbe, and Peter Werner. Simulation and visualization of climate scenarios on a distributed memory platform. In Engquist et al. [EJHS00], pages 242–253. CODEN LNCSA6. ISBN 3-540-67264-8 (print), 3-642-57313-4 (e-book). ISSN 1439-7358 (print), 2197-7100 (electronic). LCCN QA76.9.C65 S535 2000. URL http://link.springer.com/chapter/10.1007/978-3-642-57313-2_24/.

Koetter:2003:TGS

- [KSM03] Karsten Koetter, Malte Schmick, and Mario Markus. Transport out of a gravitationally stable layer with the help of a faster diffusing substance: PDE simulations and scaling laws. In Emmerich et al. [ENS03], page ?? CODEN LNCSA6. ISBN 3-540-40367-1. ISSN 1439-7358 (print), 2197-7100 (electronic). LCCN QC173.4.I57 I57 2003. URL <http://www.loc.gov/catdir/enhancements/fy0818/2003060231-d.html>. Papers from the workshop on “Computational Physics of Transport and Interfacial Dynamics”, Dresden, February 25–March 8, 2002.

Kneissl:2015:PAS

- [KSS15] S. Kneißl, D. C. Sternel, and M. Schäfer. Parallel algorithm for solution-adaptive grid movement in the context of fluid structure interaction. In Mehl et al. [MBS15], pages 85–98. ISBN 3-319-22996-6, 3-319-22997-4 (e-book). LCCN QA71-90; TA329. URL http://link.springer.com/chapter/10.1007/978-3-319-22997-3_5/.

Kaindl:2002:MII

- [KSW02] W. Kaindl, G. Sölkner, and G. Wachutka. Modeling of ion-induced charge generation in high voltage diodes. In Breuer et al. [BDZ02], pages 377–384. CODEN LNCSA6. ISBN 3-540-42946-8 (print), 3-642-55919-0 (e-book). ISSN 1439-7358 (print), 2197-7100 (electronic). LCCN Q183.9 .I58 2001. URL http://link.springer.com/content/pdf/10.1007/978-3-642-55919-8_41.

Kako:2005:NAD

- [KT05a] Takashi Kako and Kentarou Touda. Numerical approximation of Dirichlet-to-Neumann mapping and its application to voice generation problem. In Kornhuber et al. [KHP⁺05], pages 51–65. CODEN LNCSA6. ISBN 3-540-22523-4 (print), 3-540-26825-1 (e-book). ISSN 1439-7358 (print), 2197-7100 (electronic). LCCN QA402.2 .I55 2003. URL http://link.springer.com/content/pdf/10.1007/3-540-26825-1_4. Papers from the 15th International Conference on Domain Decomposition, Freie Universität Berlin (FU), Berlin, Germany, July 21–25, 2003.

Kulkarni:2005:DDB

- [KT05b] Deepak V. Kulkarni and Daniel A. Tortorelli. A domain decomposition based two-level Newton scheme for nonlinear problems. In Kornhuber et al. [KHP⁺05], pages 615–622. CODEN LNCSA6. ISBN 3-540-22523-4 (print), 3-540-26825-1 (e-book). ISSN 1439-7358 (print), 2197-7100 (electronic). LCCN QA402.2 .I55 2003. URL http://link.springer.com/content/pdf/10.1007/3-540-26825-1_65. Papers from the 15th International Conference on Domain Decomposition, Freie Universität Berlin (FU), Berlin, Germany, July 21–25, 2003.

Kalitzin:2007:AWE

- [KT07a] Georgi Kalitzin and Jeremy A. Templeton. A near-wall eddy-viscosity formulation for LES. In Kassinos et al. [KLIM07], pages 127–140. CODEN LNCSA6. ISBN 3-540-34233-8 (print), 3-540-34234-6 (e-book). ISSN 1439-7358 (print), 2197-7100 (electronic). LCCN TA357.5.T87 C66 2007. URL http://link.springer.com/content/pdf/10.1007/978-3-540-34234-2_10. Proceedings of the symposium on *Complex Effects in Large Eddy Simulation* held in Lemesos (Limassol), Cyprus, September 21–24, 2005.

Kalitzin:2007:NWE

- [KT07b] Georgi Kalitzin and Jeremy A. Templeton. A near-wall eddy-viscosity formulation for LES. In Kassinos et al. [KLIM07], pages 127–140. CODEN LNCSA6. ISBN 3-540-34233-8 (print), 3-540-34234-6 (e-book). ISSN 1439-7358 (print), 2197-7100 (electronic). LCCN TA357.5.T87 C66 2007. URL http://link.springer.com/content/pdf/10.1007/978-3-540-34234-2_10. Proceedings of the symposium on *Complex Effects in Large Eddy Simulation* held in Lemesos (Limassol), Cyprus, September 21–24, 2005.

Kraus:2008:MMD

- [KT08] Johannes K. Kraus and Satyendra K. Tomar. A multilevel method for discontinuous Galerkin approximation of three-dimensional elliptic problems. In Langer et al. [LDK⁺08], pages 155–164. CODEN LNCSA6. ISBN 3-540-75198-X (print), 3-540-75199-8 (e-book). ISSN 1439-7358 (print), 2197-7100 (electronic). LCCN QA402.2 .I55 2006. URL http://link.springer.com/content/pdf/10.1007/978-3-540-75199-1_14. 17th International Confer-

ence on Domain Decomposition Methods held at St. Wolfgang/Strobl, Austria, July 3–7, 2006.

Kaya:2009:NSP

- [KT09] M. Kaya and I. H. Tuncer. Non-sinusoidal path optimization of dual airfoils flapping in a biplane configuration. In Tuncer et al. [TGEM09], pages 59–66. CODEN LNCSA6. ISBN 3-540-92743-3 (print), 3-540-92744-1 (e-book). ISSN 1439-7358 (print), 2197-7100 (electronic). LCCN ???? URL http://link.springer.com/content/pdf/10.1007/978-3-540-92744-0_7. Parallel CFD 2007 was held in Antalya, Turkey, from May 21 to 24, 2007.

Kaya:2011:POD

- [KT11] Mustafa Kaya and Ismail H. Tuncer. Path optimization of dual airfoils flapping in a biplane configuration with RSM in a parallel computing environment. In Tromeur-Dervout et al. [TDBEE11], pages 83–90. CODEN LNCSA6. ISBN 3-642-14437-3 (print), 3-642-14438-1 (e-book). ISSN 1439-7358 (print), 2197-7100 (electronic). LCCN ???? URL http://link.springer.com/content/pdf/10.1007/978-3-642-14438-7_8. Proceedings of the twentieth meeting, Parallel CFD 2008, held May 19–22, 2008 in Lyon, France.

Kearsley:2003:HCL

- [KTB03] Anthony J. Kearsley, Jon W. Tolle, and Paul T. Boggs. Hierarchical control of a linear diffusion equation. In Biegler et al. [BGHvBW03a], pages 236–249. CODEN LNCSA6. ISBN 3-540-05045-0 (print), 3-642-55508-X (e-book). ISSN 1439-7358 (print), 2197-7100 (electronic). LCCN QA402.5 .L358 2003. URL http://link.springer.com/content/pdf/10.1007/978-3-642-55508-4_14.

Kanayama:2007:SIV

- [KTC07] Hiroshi Kanayama, Diasuke Tagami, and Masatsugu Chiba. Stationary incompressible viscous flow analysis by a domain decomposition method. In Widlund and Keyes [WK07], pages 611–618. CODEN LNCSA6. ISBN 3-540-34468-3 (print), 3-540-34469-1 (e-book). ISSN 1439-7358 (print), 2197-7100 (electronic). LCCN QA402.2 .I55 2005. URL http://link.springer.com/content/pdf/10.1007/978-3-540-34469-8_76. Proceedings of the *Sixteenth International Con-*

ference on Domain Decomposition Methods, New York City, January 11–15, 2005.

Kubota:2006:CMP

- [Kub06] Koichi Kubota. Computation of matrix permanent with automatic differentiation. In Bückner et al. [BCH⁺06], pages 67–76. CODEN LNCSA6. ISBN 3-540-28403-6 (print), 3-540-28438-9 (e-book). ISSN 1439-7358 (print), 2197-7100 (electronic). LCCN QA304 .I58 2006. URL http://link.springer.com/content/pdf/10.1007/3-540-28438-9_6. Proceedings of the Fourth International Conference on Automatic Differentiation, July 20–23, Chicago, Illinois.

Kubota:2008:CCA

- [Kub08] Koichi Kubota. Combinatorial computation with automatic differentiation. In Bischof et al. [BBH⁺08], pages 315–325. CODEN LNCSA6. ISBN 3-540-68935-4 (print), 3-540-68942-7 (e-book). ISSN 1439-7358 (print), 2197-7100 (electronic). LCCN QA304 .I58 2008. URL http://link.springer.com/content/pdf/10.1007/978-3-540-68942-3_28.

Kuczera:1999:EPF

- [Kuc99] Krzysztof Kuczera. Exploration of peptide free energy surfaces. In Deuffhard et al. [DHL⁺99], pages 163–175. CODEN LNCSA6. ISBN 3-540-63242-5 (print), 3-642-58360-1 (e-book). ISSN 1439-7358 (print), 2197-7100 (electronic). LCCN QP517.M65 I56 1999. URL http://link.springer.com/chapter/10.1007/978-3-642-58360-5_9/.

Kucera:2015:URO

- [Kuc15] Václav Kucera. On the use of reconstruction operators in discontinuous Galerkin schemes. In Abdulle et al. [ADK⁺15], pages 75–83. ISBN 3-319-10704-6 (paperback), 3-319-10705-4 (e-book). ISSN 1439-7358 (print), 2197-7100 (electronic). LCCN QA76.9.M35 .E976 2015. URL http://link.springer.com/chapter/10.1007/978-3-319-10705-9_7/.

Kuhnert:2002:UFP

- [Kuh02] Jörg Kuhnert. An upwind finite pointset method (FPM) for compressible Euler and Navier–Stokes equations. In Griebel and Schweitzer [GS02b], pages 239–249. CODEN LNCSA6. ISBN 3-540-43891-2 (print), 3-642-56103-9 (e-book). ISSN 1439-7358 (print), 2197-7100 (electronic). LCCN QA377 .M45

2003. URL http://link.springer.com/content/pdf/10.1007/978-3-642-56103-0_16. Proceedings of a workshop on Meshfree Methods for Partial Differential Equations, Institut für Angewandte Mathematik, Rheinische Friedrich-Wilhelms Universität Bonn, September 11–14, 2001.

Karasozen:2015:ADG

- [KUM15] Bulent Karasozen, Murat Uzunca, and Murat Manguoğlu. Adaptive discontinuous Galerkin methods for nonlinear diffusion-convection-reaction equations. In Abdulle et al. [ADK⁺15], pages 85–93. ISBN 3-319-10704-6 (paperback), 3-319-10705-4 (e-book). ISSN 1439-7358 (print), 2197-7100 (electronic). LCCN QA76.9.M35 .E976 2015. URL http://link.springer.com/chapter/10.1007/978-3-319-10705-9_8/.

Kuznetsov:2005:MFE

- [Kuz05] Yuri Kuznetsov. Mixed finite element methods for diffusion equations on nonmatching grids. In Kornhuber et al. [KHP⁺05], pages 311–318. CODEN LNCSA6. ISBN 3-540-22523-4 (print), 3-540-26825-1 (e-book). ISSN 1439-7358 (print), 2197-7100 (electronic). LCCN QA402.2 .I55 2003. URL http://link.springer.com/content/pdf/10.1007/3-540-26825-1_30. Papers from the 15th International Conference on Domain Decomposition, Freie Universität Berlin (FU), Berlin, Germany, July 21–25, 2003.

Kuznetsov:2008:DDP

- [Kuz08] Yuri A. Kuznetsov. Domain decomposition preconditioner for anisotropic diffusion. In Langer et al. [LDK⁺08], pages 105–118. CODEN LNCSA6. ISBN 3-540-75198-X (print), 3-540-75199-8 (e-book). ISSN 1439-7358 (print), 2197-7100 (electronic). LCCN QA402.2 .I55 2006. URL http://link.springer.com/content/pdf/10.1007/978-3-540-75199-1_9. 17th International Conference on Domain Decomposition Methods held at St. Wolfgang/Strobl, Austria, July 3–7, 2006.

Kuznetsov:2009:LBE

- [Kuz09] Yuri A. Kuznetsov. Lower bounds for eigenvalues of elliptic operators by overlapping domain decomposition. In Bercovier et al. [BGKW09], pages 307–314. CODEN LNCSA6. ISBN

3-642-02676-1 (print), 3-642-02677-X (e-book). ISSN 1439-7358 (print), 2197-7100 (electronic). LCCN QA402.2 .I584 2009. URL http://link.springer.com/content/pdf/10.1007/978-3-642-02677-5_34.

Kolev:2008:ASA

- [KV08] Tzanio V. Kolev and Panayot S. Vassilevski. Auxiliary space AMG for H(curl) problems. In Langer et al. [LDK⁺08], pages 147–154. CODEN LNCSA6. ISBN 3-540-75198-X (print), 3-540-75199-8 (e-book). ISSN 1439-7358 (print), 2197-7100 (electronic). LCCN QA402.2 .I55 2006. URL http://link.springer.com/content/pdf/10.1007/978-3-540-75199-1_13. 17th International Conference on Domain Decomposition Methods held at St. Wolfgang/Strobl, Austria, July 3–7, 2006.

Koren:2010:ACM

- [KV10] Barry Koren and Kees Vuik, editors. *Advanced Computational Methods in Science and Engineering*, volume 71 of *Lecture Notes in Computational Science and Engineering*. Springer-Verlag Inc., New York, NY, USA, 2010. CODEN LNCSA6. ISBN 3-642-03343-1 (print), 3-642-03344-X (e-book). ISSN 1439-7358 (print), 2197-7100 (electronic). LCCN Q183.9 .A35 2010. URL <http://link.springer.com/book/10.1007/978-3-642-03344-5>; <http://www.springerlink.com/content/978-3-642-03344-5>.

Khoromskij:1998:RIR

- [KW98] Boris N. Khoromskij and Gabriel Wittum. Robust interface reduction for highly anisotropic elliptic equations. In Hackbusch and Wittum [HW98], pages 140–156. CODEN LNCSA6. ISBN 3-540-63133-X (softcover), 3-642-58734-8 (e-book). ISSN 1439-7358 (print), 2197-7100 (electronic). LCCN QA377 .E94 1996. URL http://link.springer.com/chapter/10.1007/978-3-642-58734-4_8/.

Krause:2000:MMM

- [KW00] Rolf H. Krause and Barbara I. Wohlmuth. Multigrid methods for mortar finite elements. In Dick et al. [DRV00], pages 136–142. CODEN LNCSA6. ISBN 3-540-67157-9 (print), 3-642-58312-1 (e-book). ISSN 1439-7358 (print), 2197-7100 (electronic). LCCN QA377 .E94 1999. URL http://link.springer.com/chapter/10.1007/978-3-642-58312-4_18/.

Klawonn:2002:DPF

- [KW02] Axel Klawonn and Olof B. Widlund. Dual-primal FETI methods with face constraints. In Pavarino and Toselli [PT02], pages 27–40. CODEN LNCSA6. ISBN 3-540-43413-5 (print), 3-642-56118-7 (e-book). ISSN 1439-7358 (print), 2197-7100 (electronic). LCCN QA402.2 .R43 2002. URL http://link.springer.com/content/pdf/10.1007/978-3-642-56118-4_2. Papers presented at the Workshop on Domain Decomposition held at ETH, Zurich, June 7–8, 2001.

Khoromskij:2004:DSA

- [KW04a] Boris N. Khoromskij and Gabriel Wittum. Data-sparse approximation to the Schur complement for Laplacian. In *Numerical Solution of Elliptic Differential Equations by Reduction to the Interface* [KW04j], pages 161–187. CODEN LNCSA6. ISBN 3-540-20406-7 (print), 3-642-18777-3 (e-book). ISSN 1439-7358 (print), 2197-7100 (electronic). LCCN ????. URL http://link.springer.com/content/pdf/10.1007/978-3-642-18777-3_7.

Khoromskij:2004:DPS

- [KW04b] Boris N. Khoromskij and Gabriel Wittum. Discrete Poincaré–Steklov mappings for biharmonic and Lamé equations. In *Numerical Solution of Elliptic Differential Equations by Reduction to the Interface* [KW04j], pages 189–208. CODEN LNCSA6. ISBN 3-540-20406-7 (print), 3-642-18777-3 (e-book). ISSN 1439-7358 (print), 2197-7100 (electronic). LCCN ????. URL http://link.springer.com/content/pdf/10.1007/978-3-642-18777-3_8.

Khoromskij:2004:EPS

- [KW04c] Boris N. Khoromskij and Gabriel Wittum. Elliptic Poincaré–Steklov operators. In *Numerical Solution of Elliptic Differential Equations by Reduction to the Interface* [KW04j], pages 37–62. CODEN LNCSA6. ISBN 3-540-20406-7 (print), 3-642-18777-3 (e-book). ISSN 1439-7358 (print), 2197-7100 (electronic). LCCN ????. URL http://link.springer.com/content/pdf/10.1007/978-3-642-18777-3_2.

Khoromskij:2004:FEM

- [KW04d] Boris N. Khoromskij and Gabriel Wittum. Finite element method for elliptic PDEs. In *Numerical Solution of Elliptic*

Differential Equations by Reduction to the Interface [KW04j], pages 1–35. CODEN LNCSA6. ISBN 3-540-20406-7 (print), 3-642-18777-3 (e-book). ISSN 1439-7358 (print), 2197-7100 (electronic). LCCN ????. URL http://link.springer.com/content/pdf/10.1007/978-3-642-18777-3_1.

Khoromskij:2004:FFT

- [KW04e] Boris N. Khoromskij and Gabriel Wittum. Frequency filtering techniques. In *Numerical Solution of Elliptic Differential Equations by Reduction to the Interface* [KW04j], pages 125–159. CODEN LNCSA6. ISBN 3-540-20406-7 (print), 3-642-18777-3 (e-book). ISSN 1439-7358 (print), 2197-7100 (electronic). LCCN ????. URL http://link.springer.com/content/pdf/10.1007/978-3-642-18777-3_6.

Khoromskij:2004:FM

- [KW04f] Boris N. Khoromskij and Gabriel Wittum. Front matter. In *Numerical Solution of Elliptic Differential Equations by Reduction to the Interface* [KW04j], pages i–xi. CODEN LNCSA6. ISBN 3-540-20406-7 (print), 3-642-18777-3 (e-book). ISSN 1439-7358 (print), 2197-7100 (electronic). LCCN ????. URL <http://link.springer.com/content/pdf/bfm:978-3-642-18777-3/1>.

Khoromskij:2004:IRS

- [KW04g] Boris N. Khoromskij and Gabriel Wittum. Interface reduction for the Stokes equation. In *Numerical Solution of Elliptic Differential Equations by Reduction to the Interface* [KW04j], pages 209–277. CODEN LNCSA6. ISBN 3-540-20406-7 (print), 3-642-18777-3 (e-book). ISSN 1439-7358 (print), 2197-7100 (electronic). LCCN ????. URL http://link.springer.com/content/pdf/10.1007/978-3-642-18777-3_9.

Khoromskij:2004:ISM

- [KW04h] Boris N. Khoromskij and Gabriel Wittum. Iterative substructuring methods. In *Numerical Solution of Elliptic Differential Equations by Reduction to the Interface* [KW04j], pages 63–81. CODEN LNCSA6. ISBN 3-540-20406-7 (print), 3-642-18777-3 (e-book). ISSN 1439-7358 (print), 2197-7100 (electronic). LCCN ????. URL http://link.springer.com/content/pdf/10.1007/978-3-642-18777-3_3.

Khoromskij:2004:MM

- [KW04i] Boris N. Khoromskij and Gabriel Wittum. Multilevel methods. In *Numerical Solution of Elliptic Differential Equations by Reduction to the Interface* [KW04j], pages 83–95. CODEN LNCSA6. ISBN 3-540-20406-7 (print), 3-642-18777-3 (e-book). ISSN 1439-7358 (print), 2197-7100 (electronic). LCCN ????. URL http://link.springer.com/content/pdf/10.1007/978-3-642-18777-3_4.

Khoromskij:2004:NSE

- [KW04j] Boris N. Khoromskij and Gabriel Wittum. *Numerical Solution of Elliptic Differential Equations by Reduction to the Interface*, volume 36 of *Lecture Notes in Computational Science and Engineering*. Springer-Verlag Inc., New York, NY, USA, 2004. CODEN LNCSA6. ISBN 3-540-20406-7 (print), 3-642-18777-3 (e-book). ISSN 1439-7358 (print), 2197-7100 (electronic). xii + 300 pp. LCCN ????. URL <http://link.springer.com/book/10.1007/978-3-642-18777-3>; <http://www.springerlink.com/content/978-3-642-18777-3>.

Khoromskij:2004:RPE

- [KW04k] Boris N. Khoromskij and Gabriel Wittum. Robust preconditioners for equations with jumping anisotropic coefficients. In *Numerical Solution of Elliptic Differential Equations by Reduction to the Interface* [KW04j], pages 97–124. CODEN LNCSA6. ISBN 3-540-20406-7 (print), 3-642-18777-3 (e-book). ISSN 1439-7358 (print), 2197-7100 (electronic). LCCN ????. URL http://link.springer.com/content/pdf/10.1007/978-3-642-18777-3_5.

Klawonn:2005:SCD

- [KW05] Axel Klawonn and Olof B. Widlund. Selecting constraints in dual-primal FETI methods for elasticity in three dimensions. In Kornhuber et al. [KHP⁺05], pages 67–81. CODEN LNCSA6. ISBN 3-540-22523-4 (print), 3-540-26825-1 (e-book). ISSN 1439-7358 (print), 2197-7100 (electronic). LCCN QA402.2 .I55 2003. URL http://link.springer.com/content/pdf/10.1007/3-540-26825-1_5. Papers from the 15th International Conference on Domain Decomposition, Freie Universität Berlin (FU), Berlin, Germany, July 21–25, 2003.

Kuttler:2008:DDD

- [KW08] Ulrich Küttler and Wolfgang A. Wall. The dilemma of domain decomposition approaches in fluid-structure interactions with fully enclosed incompressible fluids. In Langer et al. [LDK⁺08], pages 575–582. CODEN LNCSA6. ISBN 3-540-75198-X (print), 3-540-75199-8 (e-book). ISSN 1439-7358 (print), 2197-7100 (electronic). LCCN QA402.2 .I55 2006. URL http://link.springer.com/content/pdf/10.1007/978-3-540-75199-1_72. 17th International Conference on Domain Decomposition Methods held at St. Wolfgang/Strobl, Austria, July 3–7, 2006.

Kopriva:2000:DSE

- [KWH00] David A. Kopriva, Stephen L. Woodruff, and M. Y. Hussaini. Discontinuous spectral element approximation of Maxwell's equations. In Cockburn et al. [CKS00b], pages 355–361. CODEN LNCSA6. ISBN 3-540-66787-3, 3-642-64098-2 (print), 3-642-59721-1 (e-book). ISSN 1439-7358 (print), 2197-7100 (electronic). LCCN TA347.F5 D57 2000. URL http://link.springer.com/chapter/10.1007/978-3-642-59721-3_33/. Papers from the first international symposium on DGM Newport, Rhode Island, USA, May 24–26, 1999.

Kassinis:2004:FAS

- [KWKK04] S. C. Kassinis, J. H. Walther, E. Kotsalis, and P. Koumoutsakos. Flow of aqueous solutions in carbon nanotubes. In Attinger and Koumoutsakos [AK04], pages 215–226. CODEN LNCSA6. ISBN 3-540-21180-2 (print), 3-642-18756-0 (e-book). ISSN 1439-7358 (print), 2197-7100 (electronic). LCCN TA342 .M85 2004. URL http://link.springer.com/content/pdf/10.1007/978-3-642-18756-8_16. Proceedings of a Summer Program in Multi-Scale Modelling and Simulation held in Lugano, Switzerland, between August 4th and 30th, 2003.

Kwok:2011:ASH

- [Kwo11] Felix Kwok. Is additive Schwarz with harmonic extension just Lions' method in disguise? In Huang et al. [HKWX11], pages 439–446. CODEN LNCSA6. ISBN 3-642-11303-6 (print), 3-642-11304-4 (e-book). ISSN 1439-7358 (print), 2197-7100 (electronic). LCCN QA402.2 .I58

2011. URL http://link.springer.com/content/pdf/10.1007/978-3-642-11304-8_51. Papers presented at the 19th International Conference on Domain Decomposition, DD19, hosted by the School of Mathematics and Computational Science of the Xiangtan University and the Hunan Key Laboratory for Computation and Simulation in Science and Engineering and held in Zhanjiajie, China, August 17–22, 2009.

Kwok:2014:NNW

- [Kwo14] Felix Kwok. Neumann–Neumann waveform relaxation for the time-dependent heat equation. In Erhel et al. [EGH⁺14], pages 189–198. ISBN 3-319-05788-X (paperback), 3-319-05789-8 (e-book). ISSN 1439-7358 (print), 2197-7100 (electronic). LCCN QA71-90. URL http://link.springer.com/chapter/10.1007/978-3-319-05789-7_15/.

Klawonn:2008:MFB

- [KWW08] Axel Klawonn, Olof B. Widlund, and Barbara Wohlmuth. MINISYMPOSIUM 5: FETI, balancing, and related hybrid domain decomposition methods. In Langer et al. [LDK⁺08], pages 237–238. CODEN LNCSA6. ISBN 3-540-75198-X (print), 3-540-75199-8 (e-book). ISSN 1439-7358 (print), 2197-7100 (electronic). LCCN QA402.2 .I55 2006. URL http://link.springer.com/content/pdf/10.1007/978-3-540-75199-1_26. 17th International Conference on Domain Decomposition Methods held at St. Wolfgang/Strobl, Austria, July 3–7, 2006.

Kysar:2009:DCB

- [Kys09] Jeffrey W. Kysar. Direct comparison between experiments and computations at the atomic length scale: a case study of graphene. In Yip and Diaz de la Rubia [YD09], pages 143–157. CODEN LNCSA6. ISBN 1-4020-9740-9 (print), 1-4020-9741-7 (e-book). ISSN 1439-7358 (print), 2197-7100 (electronic). LCCN ???? URL http://link.springer.com/content/pdf/10.1007/978-1-4020-9741-6_11. Previously published in *Scientific Modeling and Simulations*, Volume 15, Issues 1–3, 2008.

Kruger:2008:DAN

- [KZX08] Uwe Kruger, Junping Zhang, and Lei Xie. Developments and applications of nonlinear principal component analysis

— a review. In Gorban et al. [GKWZ08], pages 1–43. CODEN LNCSA6. ISBN 3-540-73749-9 (print), 3-540-73750-2 (e-book). ISSN 1439-7358 (print), 2197-7100 (electronic). LCCN QA278.5 .P75 2008. URL http://link.springer.com/content/pdf/10.1007/978-3-540-73750-6_1.

Laayouni:2008:MOS

- [Laa08a] Lahcen Laayouni. MINISYMPOSIUM 7: Optimized Schwarz methods: Promises and challenges. In Langer et al. [LDK⁺08], page 329. CODEN LNCSA6. ISBN 3-540-75198-X (print), 3-540-75199-8 (e-book). ISSN 1439-7358 (print), 2197-7100 (electronic). LCCN QA402.2 .I55 2006. URL http://link.springer.com/content/pdf/10.1007/978-3-540-75199-1_39. 17th International Conference on Domain Decomposition Methods held at St. Wolfgang/Strobl, Austria, July 3–7, 2006.

Laayouni:2008:ODD

- [Laa08b] Lahcen Laayouni. Optimized domain decomposition methods for three-dimensional partial differential equations. In Langer et al. [LDK⁺08], pages 339–346. CODEN LNCSA6. ISBN 3-540-75198-X (print), 3-540-75199-8 (e-book). ISSN 1439-7358 (print), 2197-7100 (electronic). LCCN QA402.2 .I55 2006. URL http://link.springer.com/content/pdf/10.1007/978-3-540-75199-1_41. 17th International Conference on Domain Decomposition Methods held at St. Wolfgang/Strobl, Austria, July 3–7, 2006.

Lambers:2009:CSM

- [Lam09] James V. Lambers. Coarse-scale modeling of flow in gas-injection processes for enhanced oil recovery. In Engquist et al. [ELR09], pages 303–306. CODEN LNCSA6. ISBN 3-540-88856-X (paperback), 3-540-88857-8 (e-book). ISSN 1439-7358 (print), 2197-7100 (electronic). LCCN Q183.9 .M86 2009. URL http://link.springer.com/content/pdf/10.1007/978-3-540-88857-4_9. Summer School on Multiscale Modeling and Simulation in Science, Bosön, Lidingö outside Stockholm, Sweden, June 2007.

Lambers:2011:SMT

- [Lam11] James V. Lambers. Spectral methods for time-dependent variable-coefficient PDE based on block Gaussian quadrature.

In Hesthaven and Rønquist [HR11], pages 429–439. CODEN LNCSA6. ISBN 3-642-15336-4 (print), 3-642-15337-2 (e-book). ISSN 1439-7358 (print), 2197-7100 (electronic). LCCN ????. URL http://link.springer.com/content/pdf/10.1007/978-3-642-15337-2_41.

Langtangen:1997:CP

- [Lan97a] Hans Petter Langtangen. Coupled problems. In *Spectral Elements for Transport-Dominated Equations* [Fun97f], pages 595–632. CODEN LNCSA6. ISBN 3-540-62649-2 (print), 3-642-59185-X (e-book). ISSN 1439-7358 (print), 2197-7100 (electronic). LCCN QA377 .F85 1997. URL http://link.springer.com/content/pdf/10.1007/978-3-642-55769-9_7.

Langtangen:1997:FMA

- [Lan97b] Hans Petter Langtangen. Fluid mechanics applications. In *Spectral Elements for Transport-Dominated Equations* [Fun97f], pages 539–594. CODEN LNCSA6. ISBN 3-540-62649-2 (print), 3-642-59185-X (e-book). ISSN 1439-7358 (print), 2197-7100 (electronic). LCCN QA377 .F85 1997. URL http://link.springer.com/content/pdf/10.1007/978-3-642-55769-9_6.

Langtangen:1997:FM

- [Lan97c] Hans Petter Langtangen. Front matter. In *Spectral Elements for Transport-Dominated Equations* [Fun97f], pages i–xxvi. CODEN LNCSA6. ISBN 3-540-62649-2 (print), 3-642-59185-X (e-book). ISSN 1439-7358 (print), 2197-7100 (electronic). LCCN QA377 .F85 1997. URL <http://link.springer.com/content/pdf/bfm:978-3-642-55769-9/1>.

Langtangen:1997:GS

- [Lan97d] Hans Petter Langtangen. Getting started. In *Spectral Elements for Transport-Dominated Equations* [Fun97f], pages 1–139. CODEN LNCSA6. ISBN 3-540-62649-2 (print), 3-642-59185-X (e-book). ISSN 1439-7358 (print), 2197-7100 (electronic). LCCN QA377 .F85 1997. URL http://link.springer.com/content/pdf/10.1007/978-3-642-55769-9_1.

Langtangen:1997:IFE

- [Lan97e] Hans Petter Langtangen. Introduction to finite element discretization. In *Spectral Elements for Transport-Dominated*

Equations [Fun97f], pages 141–249. CODEN LNCSA6. ISBN 3-540-62649-2 (print), 3-642-59185-X (e-book). ISSN 1439-7358 (print), 2197-7100 (electronic). LCCN QA377 .F85 1997. URL http://link.springer.com/content/pdf/10.1007/978-3-642-55769-9_2.

Langtangen:1997:NP

- [Lan97f] Hans Petter Langtangen. Nonlinear problems. In *Spectral Elements for Transport-Dominated Equations* [Fun97f], pages 459–491. CODEN LNCSA6. ISBN 3-540-62649-2 (print), 3-642-59185-X (e-book). ISSN 1439-7358 (print), 2197-7100 (electronic). LCCN QA377 .F85 1997. URL http://link.springer.com/content/pdf/10.1007/978-3-642-55769-9_4.

Langtangen:1997:PFE

- [Lan97g] Hans Petter Langtangen. Programming of finite element solvers. In *Spectral Elements for Transport-Dominated Equations* [Fun97f], pages 251–458. CODEN LNCSA6. ISBN 3-540-62649-2 (print), 3-642-59185-X (e-book). ISSN 1439-7358 (print), 2197-7100 (electronic). LCCN QA377 .F85 1997. URL http://link.springer.com/content/pdf/10.1007/978-3-642-55769-9_3.

Langtangen:1997:SMA

- [Lan97h] Hans Petter Langtangen. Solid mechanics applications. In *Spectral Elements for Transport-Dominated Equations* [Fun97f], pages 493–537. CODEN LNCSA6. ISBN 3-540-62649-2 (print), 3-642-59185-X (e-book). ISSN 1439-7358 (print), 2197-7100 (electronic). LCCN QA377 .F85 1997. URL http://link.springer.com/content/pdf/10.1007/978-3-642-55769-9_5.

Langtangen:1999:CPD

- [Lan99] Hans Petter Langtangen. *Computational partial differential equations: numerical methods and Diffpack programming*, volume 2 of *Lecture Notes in Computational Science and Engineering*. Springer-Verlag Inc., New York, NY, USA, 1999. CODEN LNCSA6. ISBN 3-540-65274-4 (print), 3-642-55769-4 (e-book). ISSN 1439-7358 (print), 2197-7100 (electronic). xxiii + 682 pp. LCCN QA377 .L355 1999. URL <http://link.springer.com/book/10.1007/978-3-642-55769-9/>.

Lang:2000:AMS

- [Lan00] Jens Lang. *Adaptive multilevel solution of nonlinear parabolic PDE systems: theory, algorithm, and applications*, volume 16 of *Lecture Notes in Computational Science and Engineering*. Springer-Verlag Inc., New York, NY, USA, 2000. CODEN LNCSA6. ISBN 3-540-67900-6. ISSN 1439-7358 (print), 2197-7100 (electronic). xii + 157 pp. LCCN QA377 .L353 2000.

Langtangen:2003:CPD

- [Lan03a] Hans Petter Langtangen. *Computational partial differential equations: numerical methods and Diffpack programming*, volume 1 of *Texts in Computational Science and Engineering*. Springer-Verlag Inc., New York, NY, USA, second edition, 2003. ISBN 3-540-43416-X (softcover), 3-642-55769-4 (e-book). ISSN 1611-0994. xxvi + 855 pp. LCCN QA377 .L355 2003. URL <http://link.springer.com/book/10.1007/978-3-642-55769-9/>; <http://www.loc.gov/catdir/enhancements/fy0817/2003041553-d.html>.

Langtangen:2003:CP

- [Lan03b] Hans Petter Langtangen. Coupled problems. In *Computational partial differential equations: numerical methods and Diffpack programming* [Lan03a], pages 595–632. ISBN 3-540-43416-X (softcover), 3-642-55769-4 (e-book). ISSN 1611-0994. LCCN QA377 .L355 2003. URL http://link.springer.com/content/pdf/10.1007/978-3-642-55769-9_7.

Langtangen:2003:FMA

- [Lan03c] Hans Petter Langtangen. Fluid mechanics applications. In *Computational partial differential equations: numerical methods and Diffpack programming* [Lan03a], pages 539–594. ISBN 3-540-43416-X (softcover), 3-642-55769-4 (e-book). ISSN 1611-0994. LCCN QA377 .L355 2003. URL http://link.springer.com/content/pdf/10.1007/978-3-642-55769-9_6.

Langtangen:2003:FM

- [Lan03d] Hans Petter Langtangen. Front matter. In *Computational partial differential equations: numerical methods and Diffpack programming* [Lan03a], pages i–xxvi. ISBN 3-540-43416-X (softcover), 3-642-55769-4 (e-book). ISSN 1611-0994. LCCN QA377 .L355 2003. URL <http://link.springer.com/content/pdf/bfm:978-3-642-55769-9/1>.

Langtangen:2003:GS

- [Lan03e] Hans Petter Langtangen. Getting started. In *Computational partial differential equations: numerical methods and Diffpack programming* [Lan03a], pages 1–139. ISBN 3-540-43416-X (softcover), 3-642-55769-4 (e-book). ISSN 1611-0994. LCCN QA377 .L355 2003. URL http://link.springer.com/content/pdf/10.1007/978-3-642-55769-9_1.

Langtangen:2003:IFE

- [Lan03f] Hans Petter Langtangen. Introduction to finite element discretization. In *Computational partial differential equations: numerical methods and Diffpack programming* [Lan03a], pages 141–249. ISBN 3-540-43416-X (softcover), 3-642-55769-4 (e-book). ISSN 1611-0994. LCCN QA377 .L355 2003. URL http://link.springer.com/content/pdf/10.1007/978-3-642-55769-9_2.

Langtangen:2003:NP

- [Lan03g] Hans Petter Langtangen. Nonlinear problems. In *Computational partial differential equations: numerical methods and Diffpack programming* [Lan03a], pages 459–491. ISBN 3-540-43416-X (softcover), 3-642-55769-4 (e-book). ISSN 1611-0994. LCCN QA377 .L355 2003. URL http://link.springer.com/content/pdf/10.1007/978-3-642-55769-9_4.

Langtangen:2003:PFE

- [Lan03h] Hans Petter Langtangen. Programming of finite element solvers. In *Computational partial differential equations: numerical methods and Diffpack programming* [Lan03a], pages 251–458. ISBN 3-540-43416-X (softcover), 3-642-55769-4 (e-book). ISSN 1611-0994. LCCN QA377 .L355 2003. URL http://link.springer.com/content/pdf/10.1007/978-3-642-55769-9_3.

Langtangen:2003:SMA

- [Lan03i] Hans Petter Langtangen. Solid mechanics applications. In *Computational partial differential equations: numerical methods and Diffpack programming* [Lan03a], pages 493–537. ISBN 3-540-43416-X (softcover), 3-642-55769-4 (e-book). ISSN 1611-0994. LCCN QA377 .L355 2003. URL http://link.springer.com/content/pdf/10.1007/978-3-642-55769-9_5.

Lashuk:2007:PEL

- [LAOK07] Ilya Lashuk, Merico Argentati, Evgueni Ovtchinnikov, and Andrew Knyazev. Preconditioned eigensolver LOBPCG in *hypre* and PETSc. In Widlund and Keyes [WK07], pages 635–642. CODEN LNCSA6. ISBN 3-540-34468-3 (print), 3-540-34469-1 (e-book). ISSN 1439-7358 (print), 2197-7100 (electronic). LCCN QA402.2 .I55 2005. URL http://link.springer.com/content/pdf/10.1007/978-3-540-34469-8_79. Proceedings of the *Sixteenth International Conference on Domain Decomposition Methods*, New York City, January 11–15, 2005.

Larsen:2006:ONT

- [Lar06] Edward W. Larsen. An overview of neutron transport problems and simulation techniques. In Graziani [Gra06], pages 513–534. CODEN LNCSA6. ISBN 3-540-28122-3 (print), 3-540-28125-8 (e-book). ISSN 1439-7358 (print), 2197-7100 (electronic). LCCN MLCM 2006/40189 (Q); QC793.3.T7 C66 2006. URL http://link.springer.com/content/pdf/10.1007/3-540-28125-8_26.

Larson:2000:PEE

- [LB00] Mats G. Larson and Timothy J. Barth. A posteriori error estimation for adaptive discontinuous Galerkin approximations of hyperbolic systems. In Cockburn et al. [CKS00b], pages 363–368. CODEN LNCSA6. ISBN 3-540-66787-3, 3-642-64098-2 (print), 3-642-59721-1 (e-book). ISSN 1439-7358 (print), 2197-7100 (electronic). LCCN TA347.F5 D57 2000. URL http://link.springer.com/chapter/10.1007/978-3-642-59721-3_34/. Papers from the first international symposium on DGM Newport, Rhode Island, USA, May 24–26, 1999.

Livne:2002:MEC

- [LB02] Oren E. Livne and Achi Brandt. Multiscale eigenbasis calculations: N eigenfunctions in $O(N \log N)$. In Barth et al. [BCH02], pages 347–357. CODEN LNCSA6. ISBN 3-540-42420-2 (print), 3-642-56205-1 (e-book). ISSN 1439-7358 (print), 2197-7100 (electronic). LCCN QA403.3 .M85 2002. URL http://link.springer.com/content/pdf/10.1007/978-3-642-56205-1_11. Papers from the Yosemite Educational Symposium (YES), Yosemite valley, California, Fall 2000.

Larson:2005:ASL

- [LB05] Mats G. Larson and Fredrik Bengzon. Adaptive submodeling for linear elasticity problems with multiscale geometric features. In Engquist et al. [ERL05], pages 169–180. CODEN LNCSA6. ISBN 3-540-25335-1 (print), 3-540-26444-2 (e-book). ISSN 1439-7358 (print), 2197-7100 (electronic). LCCN TA347.F5 M85 2005. URL http://link.springer.com/content/pdf/10.1007/3-540-26444-2_8. Proceedings of *Multiscale Methods in Science and Engineering*, Uppsala, Sweden, January 26–28, 2004.

Lucius:2011:TAC

- [LB11] Andreas Lucius and Gunther Brenner. 3D time accurate CFD simulations of a centrifugal compressor. In Tromeur-Dervout et al. [TDBEE11], pages 173–180. CODEN LNCSA6. ISBN 3-642-14437-3 (print), 3-642-14438-1 (e-book). ISSN 1439-7358 (print), 2197-7100 (electronic). LCCN ????? URL http://link.springer.com/content/pdf/10.1007/978-3-642-14438-7_18. Proceedings of the twentieth meeting, Parallel CFD 2008, held May 19–22, 2008 in Lyon, France.

Lorenzana:2009:SMI

- [LBB09] H. E. Lorenzana, J. F. Belak, and K. S. Bradley. Shocked materials at the intersection of experiment and simulation. In Yip and Diaz de la Rubia [YD09], pages 159–186. CODEN LNCSA6. ISBN 1-4020-9740-9 (print), 1-4020-9741-7 (e-book). ISSN 1439-7358 (print), 2197-7100 (electronic). LCCN ????? URL http://link.springer.com/content/pdf/10.1007/978-1-4020-9741-6_12. Previously published in *Scientific Modeling and Simulations*, Volume 15, Issues 1–3, 2008.

Lohner:2002:LSF

- [LBCP02] R. Löhner, J. D. Baum, Ch. Charman, and D. Pelessone. Large-scale fluid-structure interaction simulations using parallel computers. In Breuer et al. [BDZ02], pages 3–20. CODEN LNCSA6. ISBN 3-540-42946-8 (print), 3-642-55919-0 (e-book). ISSN 1439-7358 (print), 2197-7100 (electronic). LCCN Q183.9 .I58 2001. URL http://link.springer.com/content/pdf/10.1007/978-3-642-55919-8_1.

Langtangen:2000:AST

- [LBQ00] Hans Petter Langtangen, Are Magnus Bruaset, and Ewald Quak, editors. *Advances in Software Tools for Scientific Computing*, volume 10 of *Lecture Notes in Computational Science and Engineering*. Springer-Verlag Inc., New York, NY, USA, 2000. CODEN LNCSA6. ISBN 3-540-66557-9 (softcover), 3-642-57172-7 (e-book). ISSN 1439-7358 (print), 2197-7100 (electronic). LCCN QA766.A336 2000. URL <http://link.springer.com/book/10.1007/978-3-642-57172-5>; <http://www.springerlink.com/content/978-3-642-57172-5>. Papers from an International Workshop on Modern Software Tools for Scientific Computing (SciTools'98), Oslo, Norway, September 14–16, 1998.

Lorenzen:2014:PWD

- [LBR14] Winfried Lorenzen, Andreas Becker, and Ronald Redmer. Progress in warm dense matter and planetary physics. In Graziani et al. [GDRT14b], pages 203–234. ISBN 3-319-04912-7. ISSN 1439-7358 (print), 2197-7100 (electronic). LCCN QA71-90. URL http://link.springer.com/chapter/10.1007/978-3-319-04912-0_8/.

Li:2013:REC

- [LBS⁺13] Yang Li, Bernd Bruegge, Simon Stähler, Nitesh Narayan, and Heiner Igel. Requirements engineering for computational seismology software. In Bader et al. [BBW13], pages 157–175. ISBN 3-642-38761-6, 3-642-38762-4 (e-book). ISSN 1439-7358 (print), 2197-7100 (electronic). LCCN ???? URL http://link.springer.com/chapter/10.1007/978-3-642-38762-3_8/.

Lampe:2001:RLC

- [LBtM⁺01] S. Lampe, H. G. Brachtendorf, E. J. W. ter Maten, S. P. Onneweer, and R. Laur. Robust limit cycle calculations of oscillators. In van Rienen et al. [vRGH01], pages 233–240. CODEN LNCSA6. ISBN 3-540-42173-4 (softcover), 3-642-56470-4 (e-book). ISSN 1439-7358 (print), 2197-7100 (electronic). LCCN TK5.S35 2001. URL http://link.springer.com/content/pdf/10.1007/978-3-642-56470-3_23. Selected contributions presented at the 3rd International Workshop on Scientific Computing in Electrical Engineering.

Lu:2002:AGP

- [LC02] Hongsheng Lu and Jiun-Shyan Chen. Adaptive Galerkin particle method. In Griebel and Schweitzer [GS02b], pages 251–265. CODEN LNCSA6. ISBN 3-540-43891-2 (print), 3-642-56103-9 (e-book). ISSN 1439-7358 (print), 2197-7100 (electronic). LCCN QA377 .M45 2003. URL http://link.springer.com/content/pdf/10.1007/978-3-642-56103-0_17. Proceedings of a workshop on Meshfree Methods for Partial Differential Equations, Institut für Angewandte Mathematik, Rheinische Friedrich-Wilhelms Universität Bonn, September 11–14, 2001.

Liu:2011:TLM

- [LC11] Si Liu and Xiao-Chuan Cai. Two-level multiplicative domain decomposition algorithm for recovering the Lamé coefficient in biological tissues. In Huang et al. [HKWX11], pages 165–172. CODEN LNCSA6. ISBN 3-642-11303-6 (print), 3-642-11304-4 (e-book). ISSN 1439-7358 (print), 2197-7100 (electronic). LCCN QA402.2 .I58 2011. URL http://link.springer.com/content/pdf/10.1007/978-3-642-11304-8_17. Papers presented at the 19th International Conference on Domain Decomposition, DD19, hosted by the School of Mathematics and Computational Science of the Xiangtan University and the Hunan Key Laboratory for Computation and Simulation in Science and Engineering and held in Zhanjiajie, China, August 17–22, 2009.

Lai:2007:PTD

- [LCD07] Choi-Hong Lai, Diane Crane, and Alan Davies. On a parallel time-domain method for the nonlinear Black–Scholes equation. In Widlund and Keyes [WK07], pages 659–666. CODEN LNCSA6. ISBN 3-540-34468-3 (print), 3-540-34469-1 (e-book). ISSN 1439-7358 (print), 2197-7100 (electronic). LCCN QA402.2 .I55 2005. URL http://link.springer.com/content/pdf/10.1007/978-3-540-34469-8_82. Proceedings of the *Sixteenth International Conference on Domain Decomposition Methods*, New York City, January 11–15, 2005.

Leimkuhler:2006:NAM

- [LCE⁺06] Benedict Leimkuhler, Christophe Chipot, Ron Elber, Aatto Laaksonen, Alan Mark, Tamar Schlick, Christoph Schütte, and Robert Skeel, editors. *New Algorithms for Macromolecular Simulation*, volume 49 of *Lecture Notes in Computational*

Science and Engineering. Springer-Verlag Inc., New York, NY, USA, 2006. CODEN LNCSA6. ISBN 3-540-25542-7 (print), 3-540-31618-3 (e-book). ISSN 1439-7358 (print), 2197-7100 (electronic). LCCN QP517.M3 N49 2006. URL <http://link.springer.com/book/10.1007/3-540-31618-3>. Papers from the fourth edition of *Algorithms for Macromolecular Modelling*, Leicester, UK August 2004.

Lohner:2006:ERA

- [LCYB06] Rainald Löhner, Juan R. Cebal, Chi Yang, and Joseph D. Baum. Extending the range and applicability of the loose coupling approach for FSI simulations. In Bungartz and Schäfer [BS06], pages 82–100. CODEN LNCSA6. ISBN 3-540-34595-7 (print), 3-540-34596-5 (e-book). ISSN 1439-7358 (print), 2197-7100 (electronic). LCCN TA357.5.F58 F586 200. URL http://link.springer.com/content/pdf/10.1007/3-540-34596-5_4. Proceedings of a workshop on fluid-structure interactions held in Hohenwart, Germany, in October 2005.

Lezar:2012:EWA

- [LD12] Evan Lezar and David B. Davidson. Electromagnetic waveguide analysis. In Logg et al. [LMW12a], pages 629–642. CODEN LNCSA6. ISBN 3-642-23098-9 (print), 3-642-23099-7 (e-book). ISSN 1439-7358 (print), 2197-7100 (electronic). LCCN ????. URL http://link.springer.com/content/pdf/10.1007/978-3-642-23099-8_34. The software developed by the FEniCS Project is free for all to use and modify (licensed under the GNU (L)GPL), and so is this book.

Lacor:2013:IIP

- [LDHS13] Chris Lacor, Cristian Dinescu, Charles Hirsch, and Sergey Smirnov. Implementation of intrusive polynomial chaos in CFD codes and application to 3D navier–stokes. In Bijl et al. [BLMS13], pages 193–223. ISBN 3-319-00884-6 (hardcover), 3-319-00885-4 (e-book). ISSN 1439-7358 (print), 2197-7100 (electronic). LCCN ????. URL http://link.springer.com/chapter/10.1007/978-3-319-00885-1_5/.

Langer:2008:DDM

- [LDK⁺08] Ulrich Langer, Marco Discacciati, David E. Keyes, Olof B. Widlund, and Walter Zulehner, editors. *Domain Decomposition Methods in Science and Engineering XVII*, volume 60 of *Lecture Notes in Computational Science and*

Engineering. Springer-Verlag Inc., New York, NY, USA, 2008. CODEN LNCSA6. ISBN 3-540-75198-X (print), 3-540-75199-8 (e-book). ISSN 1439-7358 (print), 2197-7100 (electronic). LCCN QA402.2 .I55 2006. URL <http://link.springer.com/book/10.1007/978-3-540-75199-1>; <http://www.springerlink.com/content/978-3-540-75199-1>

1. 17th International Conference on Domain Decomposition Methods held at St. Wolfgang/Strobl, Austria, July 3–7, 2006.

Leonpacher:1999:SOL

[LDWK99] H. Leonpacher, S. S. Douglas, N. H. Woolley, and D. Kraft. Simulation and optimization of logistic processes involving sloshing media. In Bungartz et al. [BDZ99], pages 209–219. CODEN LNCSA6. ISBN 3-540-65730-4 (print), 3-642-60155-3 (e-book). ISSN 1439-7358 (print), 2197-7100 (electronic). LCCN Q183.9.I58 1998. URL http://link.springer.com/chapter/10.1007/978-3-642-60155-2_18/.

LeBorne:2005:HMC

[Le 05] Sabine Le Borne. Hierarchical matrices for convection-dominated problems. In Kornhuber et al. [KHP⁺05], pages 631–638. CODEN LNCSA6. ISBN 3-540-22523-4 (print), 3-540-26825-1 (e-book). ISSN 1439-7358 (print), 2197-7100 (electronic). LCCN QA402.2 .I55 2003. URL http://link.springer.com/content/pdf/10.1007/3-540-26825-1_67. Papers from the 15th International Conference on Domain Decomposition, Freie Universität Berlin (FU), Berlin, Germany, July 21–25, 2003.

LeTallec:2007:MAD

[Le 07] Patrick Le Tallec. MINISYMPOSIUM 8: Analysis, development and implementation of mortar elements for 3D problems in mechanics. In Widlund and Keyes [WK07], page 445. CODEN LNCSA6. ISBN 3-540-34468-3 (print), 3-540-34469-1 (e-book). ISSN 1439-7358 (print), 2197-7100 (electronic). LCCN QA402.2 .I55 2005. URL http://link.springer.com/content/pdf/10.1007/978-3-540-34469-8_55. Proceedings of the *Sixteenth International Conference on Domain Decomposition Methods*, New York City, January 11–15, 2005.

Tallec:2009:NHT

[Le 09] Patrick Le Tallec. Numerical homogenisation technique with domain decomposition based a-posteriori error estimates. In

Bercovier et al. [BGKW09], pages 27–37. CODEN LNCSA6. ISBN 3-642-02676-1 (print), 3-642-02677-X (e-book). ISSN 1439-7358 (print), 2197-7100 (electronic). LCCN QA402.2 .I584 2009. URL http://link.springer.com/content/pdf/10.1007/978-3-642-02677-5_3.

Laurent:2005:GAM

- [LEB05] Debreu Laurent, Blayo Eric, and Barnier Bernard. A general adaptive multi-resolution approach to ocean modelling: experiments in a primitive equation model of the North Atlantic. In Plewa et al. [PLW05], pages 303–313. CODEN LNCSA6. ISBN 3-540-21147-0 (print), 3-540-27039-6 (e-book). ISSN 1439-7358 (print), 2197-7100 (electronic). LCCN QA377 .C46 2003. URL http://link.springer.com/content/pdf/10.1007/3-540-27039-6_21.

LeFloch:1999:INS

- [LeF99] Philippe G. LeFloch. An introduction to nonclassical shocks of systems of conservation laws. In Kröner et al. [KOR99], pages 28–72. CODEN LNCSA6. ISBN 3-540-65081-4 (print), 3-642-58535-3 (e-book). ISSN 1439-7358 (print), 2197-7100 (electronic). LCCN QA901.I525 1997. URL http://link.springer.com/chapter/10.1007/978-3-642-58535-7_2/.

Leimkuhler:1999:CGI

- [Lei99] Benedict J. Leimkuhler. Comparison of geometric integrators for rigid body simulation. In Deuffhard et al. [DHL⁺99], pages 349–362. CODEN LNCSA6. ISBN 3-540-63242-5 (print), 3-642-58360-1 (e-book). ISSN 1439-7358 (print), 2197-7100 (electronic). LCCN QP517.M65 I56 1999. URL http://link.springer.com/chapter/10.1007/978-3-642-58360-5_19/.

Lerat:2014:CAS

- [Ler14] Alain Lerat. A comparison of analytical solutions of a high-order RBC scheme and its equivalent differential equation for a steady shock problem. In Abgrall et al. [ABC⁺14], pages 169–183. ISBN 3-319-05454-6 (paperback), 3-319-05455-4 (e-book). ISSN 1439-7358 (print), 2197-7100 (electronic). LCCN QA374 .A384 2014. URL http://link.springer.com/chapter/10.1007/978-3-319-05455-1_10/.

Leugering:2008:DDC

- [Leu08] Günter Leugering. Domain decomposition of constrained optimal control problems for 2D elliptic system on networked domains: Convergence and A posteriori error estimates. In Langer et al. [LDK⁺08], pages 119–130. CODEN LNCSA6. ISBN 3-540-75198-X (print), 3-540-75199-8 (e-book). ISSN 1439-7358 (print), 2197-7100 (electronic). LCCN QA402.2 .I55 2006. URL http://link.springer.com/content/pdf/10.1007/978-3-540-75199-1_10. 17th International Conference on Domain Decomposition Methods held at St. Wolfgang/Strobl, Austria, July 3–7, 2006.

Ltaief:2009:PAA

- [LG09] Hatem Ltaief and Marc Garbey. A parallel Aitken-additive Schwarz waveform relaxation method for parabolic problems. In Tuncer et al. [TGEM09], pages 139–146. CODEN LNCSA6. ISBN 3-540-92743-3 (print), 3-540-92744-1 (e-book). ISSN 1439-7358 (print), 2197-7100 (electronic). LCCN ????? URL http://link.springer.com/content/pdf/10.1007/978-3-540-92744-0_17. Parallel CFD 2007 was held in Antalya, Turkey, from May 21 to 24, 2007.

Ltaief:2011:PAP

- [LG11] Hatem Ltaief and Marc Garbey. Performance analysis of the parallel Aitken-additive Schwarz waveform relaxation method on distributed environment. In Tromeur-Dervout et al. [TDBEE11], pages 203–210. CODEN LNCSA6. ISBN 3-642-14437-3 (print), 3-642-14438-1 (e-book). ISSN 1439-7358 (print), 2197-7100 (electronic). LCCN ????? URL http://link.springer.com/content/pdf/10.1007/978-3-642-14438-7_21. Proceedings of the twentieth meeting, Parallel CFD 2008, held May 19–22, 2008 in Lyon, France.

Lozano:2004:RPD

- [LGCD04] Rogelio Lozano, Pedro Garcia Gil, Pedro Castillo, and Alejandro Dzul. Robust prediction-based control for unstable delay systems. In Niculescu and Gu [NG04], pages 311–325. CODEN LNCSA6. ISBN 3-540-20890-9 (print), 3-642-18482-0 (e-book). ISSN 1439-7358 (print), 2197-7100 (electronic). LCCN TJ213 .A253 2004. URL http://link.springer.com/content/pdf/10.1007/978-3-642-18482-6_23. Most of the chapters are based on the materials presented in the

CNRS-NSF Workshop *Advances in Time-Delay Systems* held in Paris in January 22–24, 2003.

LeBorne:2007:DDB

- [LGK07] Sabine Le Borne, Lars Grasedyck, and Ronald Kriemann. Domain-decomposition based H-LU preconditioners. In Widlund and Keyes [WK07], pages 667–674. CODEN LNCSA6. ISBN 3-540-34468-3 (print), 3-540-34469-1 (e-book). ISSN 1439-7358 (print), 2197-7100 (electronic). LCCN QA402.2 .I55 2005. URL http://link.springer.com/content/pdf/10.1007/978-3-540-34469-8_83. Proceedings of the *Sixteenth International Conference on Domain Decomposition Methods*, New York City, January 11–15, 2005.

Lepot:2000:ASM

- [LGM⁺00] I. Lepot, P. Geuzaine, F. Meers, J. A. Essers, and J. M. Vaassen. Analysis of several multigrid implicit algorithms for the solution of the Euler equations on unstructured meshes. In Dick et al. [DRV00], pages 157–162. CODEN LNCSA6. ISBN 3-540-67157-9 (print), 3-642-58312-1 (e-book). ISSN 1439-7358 (print), 2197-7100 (electronic). LCCN QA377 .E94 1999. URL http://link.springer.com/chapter/10.1007/978-3-642-58312-4_21/.

Laserson:2006:ECB

- [LGS06] Uri Laserson, Hin Hark Gan, and Tamar Schlick. Exploring the connection between synthetic and natural RNAs in genomes: a novel computational approach. In Leimkuhler et al. [LCE⁺06], pages 35–56. CODEN LNCSA6. ISBN 3-540-25542-7 (print), 3-540-31618-3 (e-book). ISSN 1439-7358 (print), 2197-7100 (electronic). LCCN QP517.M3 N49 2006. URL http://link.springer.com/content/pdf/10.1007/3-540-31618-3_3. Papers from the fourth edition of *Algorithms for Macromolecular Modelling*, Leicester, UK August 2004.

Lauvernet:2012:UAD

- [LH12] Claire Lauvernet and Laurent Hascoët. Using automatic differentiation to study the sensitivity of a crop model. In Forth et al. [FHP⁺12], pages 59–69. CODEN LNCSA6. ISBN 3-642-30022-7 (print), 3-642-30023-5 (e-book). ISSN 1439-7358 (print), 2197-7100 (electronic). LCCN ???? URL <http://link.springer.com/content/pdf/10.1007/978-3-642->

30023-3_6. Proceedings of the Sixth International Conference on Automatic Differentiation (AD2012) held July 23–27, 2012, in Fort Collins, Colorado, USA.

Luo:2002:APB

- [LHC02] Yunhua Luo and Ulrich Häussler-Combe. An adaptivity procedure based on the gradient of strain energy density and its application in meshless methods. In Griebel and Schweitzer [GS02b], pages 267–279. CODEN LNCSA6. ISBN 3-540-43891-2 (print), 3-642-56103-9 (e-book). ISSN 1439-7358 (print), 2197-7100 (electronic). LCCN QA377 .M45 2003. URL http://link.springer.com/content/pdf/10.1007/978-3-642-56103-0_18. Proceedings of a workshop on Meshfree Methods for Partial Differential Equations, Institut für Angewandte Mathematik, Rheinische Friedrich-Wilhelms Universität Bonn, September 11–14, 2001.

Lin:2000:FCH

- [Lin00] Qun Lin. Full convergence for Hyperbolic finite elements. In Cockburn et al. [CKS00b], pages 167–177. CODEN LNCSA6. ISBN 3-540-66787-3, 3-642-64098-2 (print), 3-642-59721-1 (e-book). ISSN 1439-7358 (print), 2197-7100 (electronic). LCCN TA347.F5 D57 2000. URL http://link.springer.com/chapter/10.1007/978-3-642-59721-3_12/. Papers from the first international symposium on DGM Newport, Rhode Island, USA, May 24–26, 1999.

Lippert:2000:OFH

- [Lip00] Thomas Lippert. One-flavour hybrid Monte Carlo with Wilson fermions. In Frommer et al. [FLMS00], pages 166–176. CODEN LNCSA6. ISBN 3-540-67732-1 (print), 3-642-58333-4 (e-book). ISSN 1439-7358 (print), 2197-7100 (electronic). LCCN QC793.3.G38 N86 2000. URL http://link.springer.com/chapter/10.1007/978-3-642-58333-9_13/.

Liu:2000:NMC

- [Liu00] Keh-Fei Liu. A noisy Monte Carlo algorithm with fermion determinant. In Frommer et al. [FLMS00], pages 142–152. CODEN LNCSA6. ISBN 3-540-67732-1 (print), 3-642-58333-4 (e-book). ISSN 1439-7358 (print), 2197-7100 (electronic). LCCN QC793.3.G38 N86 2000. URL http://link.springer.com/chapter/10.1007/978-3-642-58333-9_11/.

Liu:2005:FBD

- [Liu05] Keh-Fei Liu. A finite baryon density algorithm. In Boriçi et al. [BFJ⁺05], pages 101–111. CODEN LNCSA6. ISBN 3-540-21257-4 (print), 3-540-28504-0 (e-book). ISSN 1439-7358 (print), 2197-7100 (electronic). LCCN QC793.3.Q35 I56 2003. URL http://link.springer.com/content/pdf/10.1007/3-540-28504-0_10.

Lauritzen:2011:NTG

- [LJTN11] Peter Lauritzen, Christiane Jablonowski, Mark Taylor, and Ramachandran Nair, editors. *Numerical Techniques for Global Atmospheric Models*, volume 80 of *Lecture Notes in Computational Science and Engineering*. Springer-Verlag Inc., New York, NY, USA, 2011. CODEN LNCSA6. ISBN 3-642-11639-6 (print), 3-642-11640-X (e-book). ISSN 1439-7358 (print), 2197-7100 (electronic). LCCN QC861.3 .N86 2011. URL <http://link.springer.com/book/10.1007/978-3-642-11640-7>; <http://www.springerlink.com/content/978-3-642-11640-7>. Proceedings of the colloquium *Numerical Techniques for Global Atmospheric Models* held at the National Center for Atmospheric Research (NCAR) in Boulder, Colorado, 1–13 June 2008.

Ludtke:2002:ECE

- [LK02] U. Lüdtke and Ch. Karcher. Electromagnetic control of electron beam evaporation: Numerical simulation. In Breuer et al. [BDZ02], pages 279–286. CODEN LNCSA6. ISBN 3-540-42946-8 (print), 3-642-55919-0 (e-book). ISSN 1439-7358 (print), 2197-7100 (electronic). LCCN Q183.9 .I58 2001. URL http://link.springer.com/content/pdf/10.1007/978-3-642-55919-8_31.

Li:2005:PMS

- [LK05] Jing-Rebecca Li and Mattan Kamon. PEEC model of a spiral inductor generated by fasthenry. In Benner et al. [BMS05c], pages 373–377. CODEN LNCSA6. ISBN 3-540-24545-6 (print), 3-540-27909-1 (e-book). ISSN 1439-7358 (print), 2197-7100 (electronic). LCCN TA347.C68 D56 2005. URL http://link.springer.com/content/pdf/10.1007/3-540-27909-1_23.

Letschert:2012:ESA

- [LK12] Benjamin Letschert and Kshitij Kulshreshtha. Exploiting sparsity in automatic differentiation on multicore architectures. In Forth et al. [FHP⁺12], pages 151–161. CODEN LNCSA6. ISBN 3-642-30022-7 (print), 3-642-30023-5 (e-book). ISSN 1439-7358 (print), 2197-7100 (electronic). LCCN ????? URL http://link.springer.com/content/pdf/10.1007/978-3-642-30023-3_14. Proceedings of the Sixth International Conference on Automatic Differentiation (AD2012) held July 23–27, 2012, in Fort Collins, Colorado, USA.

Lomtev:2000:DGM

- [LKK00] I. Lomtev, R. M. Kirby, and G. E. Karniadakis. A discontinuous Galerkin method in moving domains. In Cockburn et al. [CKS00b], pages 375–383. CODEN LNCSA6. ISBN 3-540-66787-3, 3-642-64098-2 (print), 3-642-59721-1 (e-book). ISSN 1439-7358 (print), 2197-7100 (electronic). LCCN TA347.F5 D57 2000. URL http://link.springer.com/chapter/10.1007/978-3-642-59721-3_36/. Papers from the first international symposium on DGM Newport, Rhode Island, USA, May 24–26, 1999.

Liu:2013:IME

- [LKL13] Wing Kam Liu, Adrian M. Kopacz, and Tae-Rin Lee. Immersed molecular electrokinetic finite element method for nano-devices in biotechnology and gene delivery. In Griebel and Schweitzer [GS13b], pages 67–74. CODEN LNCSA6. ISBN 3-642-32978-0 (print), 3-642-32979-9 (e-book). ISSN 1439-7358 (print), 2197-7100 (electronic). LCCN QA297 .I58 2011. URL http://link.springer.com/content/pdf/10.1007/978-3-642-32979-1_4. Proceedings of the Sixth International Workshop on Meshfree Methods for Partial Differential Equations, October 4–6, 2011, Bonn, Germany.

Lube:2005:ADD

- [LKR05] Gert Lube, Tobias Knopp, and Gerd Rapin. Acceleration of a domain decomposition method for advection-diffusion problems. In Kornhuber et al. [KHP⁺05], pages 267–274. CODEN LNCSA6. ISBN 3-540-22523-4 (print), 3-540-26825-1 (e-book). ISSN 1439-7358 (print), 2197-7100 (electronic). LCCN QA402.2 .I55 2003. URL http://link.springer.com/content/pdf/10.1007/3-540-26825-1_25. Papers from the

15th International Conference on Domain Decomposition, Freie Universität Berlin (FU), Berlin, Germany, July 21–25, 2003.

Lastdrager:2000:SGC

- [LKV00] Boris Lastdrager, Barry Koren, and Jan Verwer. The sparse-grid combination technique applied to time-dependent advection problems. In Dick et al. [DRV00], pages 143–149. CODEN LNCSA6. ISBN 3-540-67157-9 (print), 3-642-58312-1 (e-book). ISSN 1439-7358 (print), 2197-7100 (electronic). LCCN QA377 .E94 1999. URL http://link.springer.com/chapter/10.1007/978-3-642-58312-4_19/.

Lejdfors:2000:GGI

- [LKYJ00] Calle Lejdfors, Malek O. Khan, Anders Ynnerman, and Bo Jönsson. GISMOS: Graphics and Interactive Steering of MOlecular Simulations. In Engquist et al. [EJHS00], pages 154–164. CODEN LNCSA6. ISBN 3-540-67264-8 (print), 3-642-57313-4 (e-book). ISSN 1439-7358 (print), 2197-7100 (electronic). LCCN QA76.9.C65 S535 2000. URL http://link.springer.com/chapter/10.1007/978-3-642-57313-2_17/.

Linse:2000:MCS

- [LL00] Per Linse and Vladimir Lobaskin. Monte Carlo simulation of solutions of like-charged colloidal particles. In Engquist et al. [EJHS00], pages 165–180. CODEN LNCSA6. ISBN 3-540-67264-8 (print), 3-642-57313-4 (e-book). ISSN 1439-7358 (print), 2197-7100 (electronic). LCCN QA76.9.C65 S535 2000. URL http://link.springer.com/chapter/10.1007/978-3-642-57313-2_18/.

Li:2005:DSD

- [LL05] Shengtai Li and Hui Li. Dimensional split divergence-free reconstruction and prolongation for adaptive mesh refinement. In Plewa et al. [PLW05], pages 125–136. CODEN LNCSA6. ISBN 3-540-21147-0 (print), 3-540-27039-6 (e-book). ISSN 1439-7358 (print), 2197-7100 (electronic). LCCN QA377 .C46 2003. URL http://link.springer.com/content/pdf/10.1007/3-540-27039-6_9.

Bris:2009:MMC

- [LL09a] Claude Le Bris and Tony Lelièvre. Multiscale modelling of complex fluids: a mathematical initiation. In Engquist et al.

[ELR09], pages 49–137. CODEN LNCSA6. ISBN 3-540-88856-X (paperback), 3-540-88857-8 (e-book). ISSN 1439-7358 (print), 2197-7100 (electronic). LCCN Q183.9 .M86 2009. URL http://link.springer.com/content/pdf/10.1007/978-3-540-88857-4_2. Summer School on Multiscale Modeling and Simulation in Science, Bosön, Lidingö outside Stockholm, Sweden, June 2007.

LeBris:2009:MMC

[LL09b] Claude Le Bris and Tony Lelièvre. Multiscale modelling of complex fluids: a mathematical initiation. In Engquist et al. [ELR09], pages 49–137. CODEN LNCSA6. ISBN 3-540-88856-X (paperback), 3-540-88857-8 (e-book). ISSN 1439-7358 (print), 2197-7100 (electronic). LCCN Q183.9 .M86 2009. URL http://link.springer.com/content/pdf/10.1007/978-3-540-88857-4_2. Summer School on Multiscale Modeling and Simulation in Science, Bosön, Lidingö outside Stockholm, Sweden, June 2007.

Legoll:2012:SRF

[LL12] Frédéric Legoll and Tony Lelièvre. Some remarks on free energy and coarse-graining. In Engquist et al. [ERT12], pages 279–329. CODEN LNCSA6. ISBN 3-642-21942-X (print), 3-642-21943-8 (e-book). ISSN 1439-7358 (print), 2197-7100 (electronic). LCCN ???? URL http://link.springer.com/content/pdf/10.1007/978-3-642-21943-6_13.

Lowe:2011:PBV

[LLR11] Johannes Löwe, Gert Lube, and Lars Röhe. A projection-based variational multiscale method for the incompressible Navier–Stokes/Fourier model. In Clavero et al. [CGL11], pages 167–175. CODEN LNCSA6. ISBN 3-642-19664-0 (print), 3-642-19665-9 (e-book). ISSN 1439-7358 (print), 2197-7100 (electronic). LCCN ???? URL http://link.springer.com/content/pdf/10.1007/978-3-642-19665-2_18. Selected papers from the proceedings of BAIL 2010 (Boundary and Interior Layers — Computational and Asymptotic Methods), held from 5 to 9 July 2010 at the University of Zaragoza, Spain.

Lowrie:2000:DGH

[LM00] Robert B. Lowrie and Jim E. Morel. Discontinuous Galerkin for hyperbolic systems with stiff relaxation. In Cockburn et al.

[CKS00b], pages 385–390. CODEN LNCSA6. ISBN 3-540-66787-3, 3-642-64098-2 (print), 3-642-59721-1 (e-book). ISSN 1439-7358 (print), 2197-7100 (electronic). LCCN TA347.F5 D57 2000. URL http://link.springer.com/chapter/10.1007/978-3-642-59721-3_37/. Papers from the first international symposium on DGM Newport, Rhode Island, USA, May 24–26, 1999.

Langtangen:2003:UDP

- [LM03a] H. P. Langtangen and K.-A. Mardal. Using Diffpack from Python scripts. In Langtangen and Tveito [LT03], pages 321–360. CODEN LNCSA6. ISBN 3-540-01438-1 (print), 3-642-18237-2 (e-book). ISSN 1439-7358 (print), 2197-7100 (electronic). LCCN QA377 .A45 2003. URL http://link.springer.com/content/pdf/10.1007/978-3-642-18237-2_8.

Lavrova:2003:FEM

- [LM03b] Olga Lavrova and Gunar Matthies. Finite element methods for coupled problems in ferrohydrodynamics. In Bänsch [Bän03], pages 160–183. CODEN LNCSA6. ISBN 3-642-62406-5 (print), 3-642-19014-6 (e-book). ISSN 1439-7358 (print), 2197-7100 (electronic). LCCN ???? URL http://link.springer.com/content/pdf/10.1007/978-3-642-19014-8_8.

Larson:2005:AVM

- [LM05] Mats G. Larson and Axel Målqvist. Adaptive variational multiscale methods based on A posteriori error estimation: Duality techniques for elliptic problems. In Engquist et al. [ERL05], pages 181–193. CODEN LNCSA6. ISBN 3-540-25335-1 (print), 3-540-26444-2 (e-book). ISSN 1439-7358 (print), 2197-7100 (electronic). LCCN TA347.F5 M85 2005. URL http://link.springer.com/content/pdf/10.1007/3-540-26444-2_9. Proceedings of *Multiscale Methods in Science and Engineering*, Uppsala, Sweden, January 26–28, 2004.

Larsson:2011:NSF

- [LM11a] Martin Larsson and Bernhard Müller. Numerical simulation of fluid-structure interaction in human phonation: Verification of structure part. In Hesthaven and Rønquist [HR11], pages 229–236. CODEN LNCSA6. ISBN 3-642-15336-4 (print), 3-642-15337-2 (e-book). ISSN 1439-7358 (print), 2197-7100

(electronic). LCCN ????. URL http://link.springer.com/content/pdf/10.1007/978-3-642-15337-2_20.

Litvinov:2011:UAM

- [LM11b] Grigory L. Litvinov and Victor P. Maslov. Universal algorithms, mathematics of semirings and parallel computations. In Gorban and Roose [GR11b], pages 63–89. CODEN LNCSA6. ISBN 3-642-14940-5 (print), 3-642-14941-3 (e-book). ISSN 1439-7358 (print), 2197-7100 (electronic). LCCN QA401 .C67 2011. URL http://link.springer.com/content/pdf/10.1007/978-3-642-14941-2_4. Extended versions of selected talks given at the international research workshop: *Coping with Complexity: Model Reduction and Data Analysis*, Ambleside, Lake District, UK, August 31–September 4, 2009 in conjunction with the A4A6, the *6th Conference on Algorithms for Approximation*.

Lovgren:2011:RBE

- [LMR11a] A. E. Løvgrén, Y. Maday, and E. M. Rønquist. The reduced basis element method: Offline-online decomposition in the nonconforming, nonaffine case. In Hesthaven and Rønquist [HR11], pages 247–254. CODEN LNCSA6. ISBN 3-642-15336-4 (print), 3-642-15337-2 (e-book). ISSN 1439-7358 (print), 2197-7100 (electronic). LCCN ????. URL http://link.springer.com/content/pdf/10.1007/978-3-642-15337-2_22.

Lovgren:2011:SEM

- [LMR11b] A. E. Løvgrén, Y. Maday, and E. M. Rønquist. The spectral element method used to assess the quality of a global C^1 map. In Hesthaven and Rønquist [HR11], pages 441–448. CODEN LNCSA6. ISBN 3-642-15336-4 (print), 3-642-15337-2 (e-book). ISSN 1439-7358 (print), 2197-7100 (electronic). LCCN ????. URL http://link.springer.com/content/pdf/10.1007/978-3-642-15337-2_42.

Logg:2012:ASD

- [LMW12a] Anders Logg, Kent-Andre Mardal, and Garth Wells, editors. *Automated Solution of Differential Equations by the Finite Element Method: The FEniCS Book*, volume 84 of *Lecture Notes in Computational Science and Engineering*. Springer-Verlag Inc., New York, NY, USA, 2012. CODEN LNCSA6. ISBN 3-642-23098-9 (print), 3-642-23099-7 (e-book). ISSN

1439-7358 (print), 2197-7100 (electronic). xiii + 723 pp. LCCN ???? URL <http://fenicsproject.org>; <http://fenicsproject.org/book/>; <http://link.springer.com/book/10.1007/978-3-642-23099-8>; <http://www.springerlink.com/content/978-3-642-23099-8>; <https://launchpad.net/fenics-book>. The software developed by the FEniCS Project is free for all to use and modify (licensed under the GNU (L)GPL), and so is this book.

Logg:2012:FEA

- [LMW12b] Anders Logg, Kent-Andre Mardal, and Garth N. Wells. Finite element assembly. In Logg et al. [LMW12a], pages 141–146. CODEN LNCSA6. ISBN 3-642-23098-9 (print), 3-642-23099-7 (e-book). ISSN 1439-7358 (print), 2197-7100 (electronic). LCCN ???? URL http://link.springer.com/content/pdf/10.1007/978-3-642-23099-8_6. The software developed by the FEniCS Project is free for all to use and modify (licensed under the GNU (L)GPL), and so is this book.

Lotz:2012:HAD

- [LN12] Johannes Lotz and Uwe Naumann. Hierarchical algorithmic differentiation: a case study. In Forth et al. [FHP⁺12], pages 187–196. CODEN LNCSA6. ISBN 3-642-30022-7 (print), 3-642-30023-5 (e-book). ISSN 1439-7358 (print), 2197-7100 (electronic). LCCN ???? URL http://link.springer.com/content/pdf/10.1007/978-3-642-30023-3_17. Proceedings of the Sixth International Conference on Automatic Differentiation (AD2012) held July 23–27, 2012, in Fort Collins, Colorado, USA.

LaCognata:2015:WPS

- [LN15] Cristina La Cognata and Jan Nordström. Well-posedness, stability and conservation for a discontinuous interface problem: an initial investigation. In Kirby et al. [KBH15], pages 147–155. ISBN 3-319-19799-1, 3-319-19800-9 (e-book). LCCN QA377. URL http://link.springer.com/chapter/10.1007/978-3-319-19800-2_11/.

Langtangen:2003:SPD

- [LO03] H. P. Langtangen and H. Osnes. Stochastic partial differential equations. In Langtangen and Tveito [LT03], pages 257–320. CODEN LNCSA6. ISBN 3-540-01438-1 (print), 3-642-18237-2 (e-book). ISSN 1439-7358 (print), 2197-7100 (electronic).

LCCN QA377 .A45 2003. URL http://link.springer.com/content/pdf/10.1007/978-3-642-18237-2_7.

Luskin:2012:LSI

- [LO12] Mitchell Luskin and Christoph Ortner. Linear stationary iterative methods for the force-based quasicontinuum approximation. In Engquist et al. [ERT12], pages 331–368. CODEN LNCSA6. ISBN 3-642-21942-X (print), 3-642-21943-8 (e-book). ISSN 1439-7358 (print), 2197-7100 (electronic). LCCN ???? URL http://link.springer.com/content/pdf/10.1007/978-3-642-21943-6_14.

Loisel:2007:OOD

- [Loi07] Sébastien Loisel. Optimal and optimized domain decomposition methods on the sphere. In Widlund and Keyes [WK07], pages 197–204. CODEN LNCSA6. ISBN 3-540-34468-3 (print), 3-540-34469-1 (e-book). ISSN 1439-7358 (print), 2197-7100 (electronic). LCCN QA402.2 .I55 2005. URL http://link.springer.com/content/pdf/10.1007/978-3-540-34469-8_20. Proceedings of the *Sixteenth International Conference on Domain Decomposition Methods*, New York City, January 11–15, 2005.

Long:2003:SRP

- [Lon03] Kevin R. Long. Sundance rapid prototyping tool for parallel PDE optimization. In Biegler et al. [BGHvBW03a], pages 331–341. CODEN LNCSA6. ISBN 3-540-05045-0 (print), 3-642-55508-X (e-book). ISSN 1439-7358 (print), 2197-7100 (electronic). LCCN QA402.5 .L358 2003. URL http://link.springer.com/content/pdf/10.1007/978-3-642-55508-4_20.

Lippold:2009:FSI

- [LOR09] F. Lippold, Ibuntić Ogor, and A. Ruprecht. Flow-structure interaction and flow analysis of hydraulic machinery on a computational grid. In Tuncer et al. [TGEM09], pages 187–194. CODEN LNCSA6. ISBN 3-540-92743-3 (print), 3-540-92744-1 (e-book). ISSN 1439-7358 (print), 2197-7100 (electronic). LCCN ???? URL http://link.springer.com/content/pdf/10.1007/978-3-540-92744-0_23. Parallel CFD 2007 was held in Antalya, Turkey, from May 21 to 24, 2007.

Logg:2012:FFF

- [LØRW12] Anders Logg, Kristian B. Ølgaard, Marie E. Rognes, and Garth N. Wells. FFC: the FEniCS form compiler. In Logg et al. [LMW12a], pages 227–238. CODEN LNCSA6. ISBN 3-642-23098-9 (print), 3-642-23099-7 (e-book). ISSN 1439-7358 (print), 2197-7100 (electronic). LCCN ???? URL http://link.springer.com/content/pdf/10.1007/978-3-642-23099-8_11. The software developed by the FEniCS Project is free for all to use and modify (licensed under the GNU (L)GPL), and so is this book.

Langer:2007:IFM

- [LOSZ07] Ulrich Langer, Günther Of, Olaf Steinbach, and Walter Zulehner. Inexact fast multipole boundary element tearing and interconnecting methods. In Widlund and Keyes [WK07], pages 405–412. CODEN LNCSA6. ISBN 3-540-34468-3 (print), 3-540-34469-1 (e-book). ISSN 1439-7358 (print), 2197-7100 (electronic). LCCN QA402.2 .I55 2005. URL http://link.springer.com/content/pdf/10.1007/978-3-540-34469-8_50. Proceedings of the *Sixteenth International Conference on Domain Decomposition Methods*, New York City, January 11–15, 2005.

Louisell:2004:SEE

- [Lou04] James Louisell. Stability exponent and eigenvalue abscissas by way of the imaginary axis eigenvalues. In Niculescu and Gu [NG04], pages 193–206. CODEN LNCSA6. ISBN 3-540-20890-9 (print), 3-642-18482-0 (e-book). ISSN 1439-7358 (print), 2197-7100 (electronic). LCCN TJ213 .A253 2004. URL http://link.springer.com/content/pdf/10.1007/978-3-642-18482-6_14. Most of the chapters are based on the materials presented in the CNRS-NSF Workshop *Advances in Time-Delay Systems* held in Paris in January 22–24, 2003.

Lowe:2009:LAP

- [Löw09] J. Löwe. A locally adapting parameter design for the divergence stabilization of FEM discretizations of the Navier–Stokes equations. In Hegarty et al. [HKOS09], pages 195–204. CODEN LNCSA6. ISBN 3-642-00604-3 (print), 3-642-00605-1 (e-book). ISSN 1439-7358 (print), 2197-7100 (electronic). LCCN ???? URL http://link.springer.com/content/pdf/10.1007/978-3-642-00605-0_15.

Li:2003:SAM

- [LP03] Shengtai Li and Linda R. Petzold. Solution adapted mesh refinement and sensitivity analysis for parabolic partial differential equation systems. In Biegler et al. [BGHvBW03a], pages 117–132. CODEN LNCSA6. ISBN 3-540-05045-0 (print), 3-642-55508-X (e-book). ISSN 1439-7358 (print), 2197-7100 (electronic). LCCN QA402.5 .L358 2003. URL http://link.springer.com/content/pdf/10.1007/978-3-642-55508-4_7.

Lee:2009:DDM

- [LP09] Chang-Ock Lee and Eun-Hee Park. A domain decomposition method based on augmented Lagrangian with a penalty term. In Bercovier et al. [BGKW09], pages 339–346. CODEN LNCSA6. ISBN 3-642-02676-1 (print), 3-642-02677-X (e-book). ISSN 1439-7358 (print), 2197-7100 (electronic). LCCN QA402.2 .I584 2009. URL http://link.springer.com/content/pdf/10.1007/978-3-642-02677-5_38.

Lee:2011:DDM

- [LP11] Chang-Ock Lee and Eun-Hee Park. A domain decomposition method based on augmented Lagrangian with a penalty term in three dimensions. In Huang et al. [HKWX11], pages 399–406. CODEN LNCSA6. ISBN 3-642-11303-6 (print), 3-642-11304-4 (e-book). ISSN 1439-7358 (print), 2197-7100 (electronic). LCCN QA402.2 .I58 2011. URL http://link.springer.com/content/pdf/10.1007/978-3-642-11304-8_46. Papers presented at the 19th International Conference on Domain Decomposition, DD19, hosted by the School of Mathematics and Computational Science of the Xiangtan University and the Hunan Key Laboratory for Computation and Simulation in Science and Engineering and held in Zhanjiajie, China, August 17–22, 2009.

Leonard:2000:MAN

- [LPH00] Benoît Leonard, Alpesh Patel, and Charles Hirsch. Multigrid acceleration in a 3D Navier–Stokes solver using unstructured hexahedral meshes with adaptation. In Dick et al. [DRV00], pages 150–156. CODEN LNCSA6. ISBN 3-540-67157-9 (print), 3-642-58312-1 (e-book). ISSN 1439-7358 (print), 2197-7100 (electronic). LCCN QA377 .E94 1999. URL http://link.springer.com/chapter/10.1007/978-3-642-58312-4_20/.

Lee:2002:ICM

- [LPK02] Sang-Ho Lee, Kim Palmo, and Samuel Krimm. Internal coordinate molecular dynamics based on the spectroscopic B-matrix. In Schlick and Gan [SG02], pages 104–128. CODEN LNCSA6. ISBN 3-540-43756-8 (print), 3-642-56080-6 (e-book). ISSN 1439-7358 (print), 2197-7100 (electronic). LCCN QP517.M3 A384 2000. URL http://link.springer.com/content/pdf/10.1007/978-3-642-56080-4_5.

Louda:2011:NST

- [LPK11] Petr Louda, Jaromír Príhoda, and Karel Kozel. Numerical simulation of turbulent incompressible and compressible flows over rough walls. In Clavero et al. [CGL11], pages 157–165. CODEN LNCSA6. ISBN 3-642-19664-0 (print), 3-642-19665-9 (e-book). ISSN 1439-7358 (print), 2197-7100 (electronic). LCCN ???? URL http://link.springer.com/content/pdf/10.1007/978-3-642-19665-2_17. Selected papers from the proceedings of BAIL 2010 (Boundary and Interior Layers — Computational and Asymptotic Methods), held from 5 to 9 July 2010 at the University of Zaragoza, Spain.

Liu:2007:BSM

- [LPKF07] W. K. Liu, H. S. Park, E. G. Karpov, and D. Farrell. Bridging scale method and its applications. In Griebel and Schweitzer [GS07b], pages 185–205. CODEN LNCSA6. ISBN 3-540-46214-7 (print), 3-540-46222-8 (e-book). ISSN 1439-7358 (print), 2197-7100 (electronic). LCCN QA377 .M45 2005. URL http://link.springer.com/content/pdf/10.1007/978-3-540-46222-4_11. Third international workshop on Meshfree Methods for Partial Differential Equations held from September 12 to September 15, 2005 in Bonn, Germany.

Lehmkuhl:2009:TNP

- [LPSB09] O. Lehmkuhl, C. D. Perez-Segarra, and R. Borrell. TermoFluids: a new parallel unstructured CFD code for the simulation of turbulent industrial problems on low cost PC cluster. In Tuncer et al. [TGEM09], pages 275–282. CODEN LNCSA6. ISBN 3-540-92743-3 (print), 3-540-92744-1 (e-book). ISSN 1439-7358 (print), 2197-7100 (electronic). LCCN ???? URL http://link.springer.com/content/pdf/10.1007/978-3-540-92744-0_34. Parallel CFD 2007 was held in Antalya, Turkey, from May 21 to 24, 2007.

Lopes:2012:IBE

- [LPT12] Nuno D. Lopes, Pedro J. S. Pereira, and Luís Trabuco. Improved Boussinesq equations for surface water waves. In Logg et al. [LMW12a], pages 471–504. CODEN LNCSA6. ISBN 3-642-23098-9 (print), 3-642-23099-7 (e-book). ISSN 1439-7358 (print), 2197-7100 (electronic). LCCN Q183.9 .I58 2011. URL http://link.springer.com/content/pdf/10.1007/978-3-642-23099-8_25. The software developed by the FEniCS Project is free for all to use and modify (licensed under the GNU (L)GPL), and so is this book.

Luo:2002:ALB

- [LQW02] L. S. Luo, D. Qi, and L. P. Wang. Applications of the lattice Boltzmann method to complex and turbulent flows. In Breuer et al. [BDZ02], pages 123–130. CODEN LNCSA6. ISBN 3-540-42946-8 (print), 3-642-55919-0 (e-book). ISSN 1439-7358 (print), 2197-7100 (electronic). LCCN Q183.9 .I58 2001. URL http://link.springer.com/content/pdf/10.1007/978-3-642-55919-8_14.

Lebiedz:2011:GCM

- [LR11] Dirk Lebiedz and Volkmar Reinhardt. Geometric criteria for model reduction in chemical kinetics via optimization of trajectories. In Gorban and Roose [GR11b], pages 241–252. CODEN LNCSA6. ISBN 3-642-14940-5 (print), 3-642-14941-3 (e-book). ISSN 1439-7358 (print), 2197-7100 (electronic). LCCN QA401 .C67 2011. URL http://link.springer.com/content/pdf/10.1007/978-3-642-14941-2_12. Extended versions of selected talks given at the international research workshop: *Coping with Complexity: Model Reduction and Data Analysis*, Ambleside, Lake District, UK, August 31–September 4, 2009 in conjunction with the A4A6, the *6th Conference on Algorithms for Approximation*.

Linz:2003:MGA

- [LRH03] Stefan J. Linz, Martin Raible, and Peter Hanggi. Morphogenesis of growing amorphous films. In Emmerich et al. [ENS03], page ?? CODEN LNCSA6. ISBN 3-540-40367-1. ISSN 1439-7358 (print), 2197-7100 (electronic). LCCN QC173.4.I57 I57 2003. URL <http://www.loc.gov/catdir/enhancements/fy0818/2003060231-d.html>. Papers from the workshop on “Computational Physics of Transport and Interfacial Dynamics”, Dresden, February 25–March 8, 2002.

Langer:1999:AMA

- [LS99] E. Langer and S. Selberherr. Advanced models, applications, and software systems for high performance computing — application in microelectronics. In Bungartz et al. [BDZ99], pages 291–308. CODEN LNCSA6. ISBN 3-540-65730-4 (print), 3-642-60155-3 (e-book). ISSN 1439-7358 (print), 2197-7100 (electronic). LCCN Q183.9.I58 1998. URL http://link.springer.com/chapter/10.1007/978-3-642-60155-2_25/.

Liu:2000:NEP

- [LS00] Jian-Guo Liu and Chi-Wang Shu. A numerical example on the performance of high order discontinuous Galerkin method for 2D incompressible flows. In Cockburn et al. [CKS00b], pages 369–374. CODEN LNCSA6. ISBN 3-540-66787-3, 3-642-64098-2 (print), 3-642-59721-1 (e-book). ISSN 1439-7358 (print), 2197-7100 (electronic). LCCN TA347.F5 D57 2000. URL http://link.springer.com/chapter/10.1007/978-3-642-59721-3_35/. Papers from the first international symposium on DGM Newport, Rhode Island, USA, May 24–26, 1999.

Lyly:2002:SSP

- [LS02] Mikko Lyly and Rolf Stenberg. A survey of stabilized plate elements. In Babuška et al. [BCM02], pages 11–21. CODEN LNCSA6. ISBN 3-540-42399-0 (print), 3-642-56288-4 (e-book). ISSN 1439-7358 (print), 2197-7100 (electronic). LCCN QA808.2 .I59 2000. URL http://link.springer.com/content/pdf/10.1007/978-3-642-56288-4_2.

Langer:2005:CBF

- [LS05] Ulrich Langer and Olaf Steinbach. Coupled boundary and finite element tearing and interconnecting methods. In Kornhuber et al. [KHP⁺05], pages 83–97. CODEN LNCSA6. ISBN 3-540-22523-4 (print), 3-540-26825-1 (e-book). ISSN 1439-7358 (print), 2197-7100 (electronic). LCCN QA402.2 .I55 2003. URL http://link.springer.com/content/pdf/10.1007/3-540-26825-1_6. Papers from the 15th International Conference on Domain Decomposition, Freie Universität Berlin (FU), Berlin, Germany, July 21–25, 2003.

Loisel:2009:MPT

- [LS09a] Sébastien Loisel and Daniel B. Szyld. A maximum principle for L^2 -trace norms with an application to optimized Schwarz methods. In Bercovier et al. [BGKW09], pages 193–200. CODEN LNCSA6. ISBN 3-642-02676-1 (print), 3-642-02677-X (e-book). ISSN 1439-7358 (print), 2197-7100 (electronic). LCCN QA402.2 .I584 2009. URL http://link.springer.com/content/pdf/10.1007/978-3-642-02677-5_20.

Loisel:2009:COS

- [LS09b] Sébastien Loisel and Daniel B. Szyld. On the convergence of optimized Schwarz methods by way of matrix analysis. In Bercovier et al. [BGKW09], pages 363–370. CODEN LNCSA6. ISBN 3-642-02676-1 (print), 3-642-02677-X (e-book). ISSN 1439-7358 (print), 2197-7100 (electronic). LCCN QA402.2 .I584 2009. URL http://link.springer.com/content/pdf/10.1007/978-3-642-02677-5_41.

Lessani:2000:ELE

- [LSL⁺00] Bamdad Lessani, Sergey Smirnov, Chris Lacor, Tine Baelmans, and Johan Meyers. Efficient large-eddy simulations of compressible flows using multigrid. In Dick et al. [DRV00], pages 163–170. CODEN LNCSA6. ISBN 3-540-67157-9 (print), 3-642-58312-1 (e-book). ISSN 1439-7358 (print), 2197-7100 (electronic). LCCN QA377 .E94 1999. URL http://link.springer.com/chapter/10.1007/978-3-642-58312-4_22/.

Li:2005:RKE

- [LSL05] Shaofan Li, Daniel C. Simkins, and Hongsheng Lu. Reproducing kernel element interpolation: Globally conforming $I^m/C^m/P^k$ hierarchies. In Griebel and Schweitzer [GS05], pages 109–132. CODEN LNCSA6. ISBN 3-540-23026-2 (print), 3-540-27099-X (e-book). ISSN 1439-7358 (print), 2197-7100 (electronic). LCCN QA377 .M452 2005. URL http://link.springer.com/content/pdf/10.1007/3-540-27099-X_7. Proceedings of the Second International Workshop on Meshfree Methods for Partial Differential Equations, Institut für Numerische Simulation Rheinische Friedrich-Wilhelms Universität Bonn, September 15–17, 2003.

Lienemann:2005:FFE

- [LSLK05] Jan Lienemann, Behnam Salimbahrami, Boris Lohmann, and Jan G. Korvink. A file format for the exchange of nonlinear dynamical ODE systems. In Benner et al. [BMS05c], pages 317–326. CODEN LNCSA6. ISBN 3-540-24545-6 (print), 3-540-27909-1 (e-book). ISSN 1439-7358 (print), 2197-7100 (electronic). LCCN TA347.C68 D56 2005. URL http://link.springer.com/content/pdf/10.1007/3-540-27909-1_12.

Lee:2006:QCS

- [LSR06] Jung-Goo Lee, Celeste Sagui, and Christopher Roland. Quantum chemistry simulations of glycopeptide antibiotics. In Leimkuhler et al. [LCE⁺06], pages 343–351. CODEN LNCSA6. ISBN 3-540-25542-7 (print), 3-540-31618-3 (e-book). ISSN 1439-7358 (print), 2197-7100 (electronic). LCCN QP517.M3 N49 2006. URL http://link.springer.com/content/pdf/10.1007/3-540-31618-3_18. Papers from the fourth edition of *Algorithms for Macromolecular Modelling*, Leicester, UK August 2004.

Leugering:2014:STD

- [LSZ14] Günter Leugering, Jan Sokolowski, and Antoni Zochowski. Shape-topological differentiability of energy functionals for unilateral problems in domains with cracks and applications. In Hoppe [Hop14], pages 243–284. ISBN 3-319-08024-5 (paperback), 3-319-08025-3 (e-book). ISSN 1439-7358 (print), 2197-7100 (electronic). LCCN QA71-90; QA377. URL http://link.springer.com/chapter/10.1007/978-3-319-08025-3_8/.

Lasser:2002:CST

- [LT02] Caroline Lasser and Andrea Toselli. Convergence of some two-level overlapping domain decomposition preconditioners with smoothed aggregation coarse spaces. In Pavarino and Toselli [PT02], pages 95–117. CODEN LNCSA6. ISBN 3-540-43413-5 (print), 3-642-56118-7 (e-book). ISSN 1439-7358 (print), 2197-7100 (electronic). LCCN QA402.2 .R43 2002. URL http://link.springer.com/content/pdf/10.1007/978-3-642-56118-4_6. Papers presented at the Workshop on Domain Decomposition held at ETH, Zurich, June 7–8, 2001.

Langtangen:2003:ATC

- [LT03] Hans Petter Langtangen and Aslak Tveito, editors. *Advanced Topics in Computational Partial Differential Equations: Numerical Methods and Diffpack Programming*, volume 33 of *Lecture Notes in Computational Science and Engineering*. Springer-Verlag Inc., New York, NY, USA, 2003. CODEN LNCSA6. ISBN 3-540-01438-1 (print), 3-642-18237-2 (e-book). ISSN 1439-7358 (print), 2197-7100 (electronic). LCCN QA377 .A45 2003. URL <http://link.springer.com/book/10.1007/978-3-642-18237-2>; <http://www.diffpack.com/Book>; <http://www.springerlink.com/content/978-3-642-18237-2>.

Lan:2005:DLB

- [LT05] Zhiling Lan and Valerie E. Taylor. Dynamic load balancing of SAMR applications. In Plewa et al. [PLW05], pages 403–410. CODEN LNCSA6. ISBN 3-540-21147-0 (print), 3-540-27039-6 (e-book). ISSN 1439-7358 (print), 2197-7100 (electronic). LCCN QA377 .C46 2003. URL http://link.springer.com/content/pdf/10.1007/3-540-27039-6_30.

Lube:2009:DBC

- [LT09] G. Lube and B. Tews. Distributed and boundary control of singularly perturbed advection-diffusion-reaction problems. In Hegarty et al. [HKOS09], pages 205–215. CODEN LNCSA6. ISBN 3-642-00604-3 (print), 3-642-00605-1 (e-book). ISSN 1439-7358 (print), 2197-7100 (electronic). LCCN ???? URL http://link.springer.com/content/pdf/10.1007/978-3-642-00605-0_16.

Lyons:2008:PES

- [LU08] Andrew Lyons and Jean Utke. On the practical exploitation of scarcity. In Bischof et al. [BBH⁺08], pages 103–114. CODEN LNCSA6. ISBN 3-540-68935-4 (print), 3-540-68942-7 (e-book). ISSN 1439-7358 (print), 2197-7100 (electronic). LCCN QA304 .I58 2008. URL http://link.springer.com/content/pdf/10.1007/978-3-540-68942-3_10.

Lubich:2014:LRD

- [Lub14] Christian Lubich. Low-rank dynamics. In Dahlke et al. [DDG⁺14], pages 381–396. ISBN 3-319-08159-4. LCCN ???? URL http://link.springer.com/chapter/10.1007/978-3-319-08159-5_19/.

Luding:2003:MMA

- [Lud03] S. Luding. Micro-macro approach to cluster formation in granular media. In Emmerich et al. [ENS03], page ?? CODEN LNCSA6. ISBN 3-540-40367-1. ISSN 1439-7358 (print), 2197-7100 (electronic). LCCN QC173.4.I57 I57 2003. URL <http://www.loc.gov/catdir/enhancements/fy0818/2003060231-d.html>. Papers from the workshop on “Computational Physics of Transport and Interfacial Dynamics”, Dresden, February 25–March 8, 2002.

Luding:2010:MDP

- [Lud10] Stefan Luding. From molecular dynamics and particle simulations towards constitutive relations for continuum theory. In Koren and Vuik [KV10], pages 453–492. CODEN LNCSA6. ISBN 3-642-03343-1 (print), 3-642-03344-X (e-book). ISSN 1439-7358 (print), 2197-7100 (electronic). LCCN Q183.9 .A35 2010. URL http://link.springer.com/content/pdf/10.1007/978-3-642-03344-5_16.

Lui:2011:OSM

- [Lui11] Shiu Hong Lui. Optimized Schwarz methods for domains with an arbitrary interface. In Huang et al. [HKWX11], pages 109–116. CODEN LNCSA6. ISBN 3-642-11303-6 (print), 3-642-11304-4 (e-book). ISSN 1439-7358 (print), 2197-7100 (electronic). LCCN QA402.2 .I58 2011. URL http://link.springer.com/content/pdf/10.1007/978-3-642-11304-8_10. Papers presented at the 19th International Conference on Domain Decomposition, DD19, hosted by the School of Mathematics and Computational Science of the Xiangan University and the Hunan Key Laboratory for Computation and Simulation in Science and Engineering and held in Zhanjiajie, China, August 17–22, 2009.

Lukas:2001:SOH

- [Luk01] D. Lukás. Shape optimization of homogeneous electromagnets. In van Rienen et al. [vRGH01], pages 145–152. CODEN LNCSA6. ISBN 3-540-42173-4 (softcover), 3-642-56470-4 (e-book). ISSN 1439-7358 (print), 2197-7100 (electronic). LCCN TK5 .S35 2001. URL http://link.springer.com/content/pdf/10.1007/978-3-642-56470-3_15. Selected contributions presented at the 3rd International Workshop on Scientific Computing in Electrical Engineering.

Lunel:2004:BTL

- [Lun04] Sjoerd M. Verduyn Lunel. Basic theory for linear delay equations. In Niculescu and Gu [NG04], pages 3–27. CODEN LNCSA6. ISBN 3-540-20890-9 (print), 3-642-18482-0 (e-book). ISSN 1439-7358 (print), 2197-7100 (electronic). LCCN TJ213 .A253 2004. URL http://link.springer.com/content/pdf/10.1007/978-3-642-18482-6_1. Most of the chapters are based on the materials presented in the CNRS-NSF Workshop *Advances in Time-Delay Systems* held in Paris in January 22–24, 2003.

Lauritzen:2011:ATS

- [LUN11] Peter H. Lauritzen, Paul A. Ullrich, and Ramachandran D. Nair. Atmospheric transport schemes: Desirable properties and a semi-Lagrangian view on finite-volume discretizations. In Lauritzen et al. [LJTN11], pages 185–250. CODEN LNCSA6. ISBN 3-642-11639-6 (print), 3-642-11640-X (e-book). ISSN 1439-7358 (print), 2197-7100 (electronic). LCCN QC861.3 .N86 2011. URL http://link.springer.com/content/pdf/10.1007/978-3-642-11640-7_8. Proceedings of the colloquium *Numerical Techniques for Global Atmospheric Models* held at the National Center for Atmospheric Research (NCAR) in Boulder, Colorado, 1–13 June 2008.

Lamichhane:2005:MFE

- [LW05] Bishnu P. Lamichhane and Barbara I. Wohlmuth. Mortar finite elements with dual Lagrange multipliers: Some applications. In Kornhuber et al. [KHP⁺05], pages 319–326. CODEN LNCSA6. ISBN 3-540-22523-4 (print), 3-540-26825-1 (e-book). ISSN 1439-7358 (print), 2197-7100 (electronic). LCCN QA402.2 .I55 2003. URL http://link.springer.com/content/pdf/10.1007/3-540-26825-1_31. Papers from the 15th International Conference on Domain Decomposition, Freie Universität Berlin (FU), Berlin, Germany, July 21–25, 2003.

Li:2007:BPS

- [LW07a] Jing Li and Olof Widlund. A BDDC preconditioner for saddle point problems. In Widlund and Keyes [WK07], pages 413–420. CODEN LNCSA6. ISBN 3-540-34468-3 (print), 3-540-34469-1 (e-book). ISSN 1439-7358 (print), 2197-7100 (electronic). LCCN QA402.2 .I55 2005. URL <http://link.springer.com/content/pdf/10.1007/978-3-540->

34469-8_51. Proceedings of the *Sixteenth International Conference on Domain Decomposition Methods*, New York City, January 11–15, 2005.

Li:2007:CNE

- [LW07b] Shuang Li and Kening Wang. Condition number estimates for C^0 interior penalty methods. In Widlund and Keyes [WK07], pages 675–682. CODEN LNCSA6. ISBN 3-540-34468-3 (print), 3-540-34469-1 (e-book). ISSN 1439-7358 (print), 2197-7100 (electronic). LCCN QA402.2 .I55 2005. URL http://link.springer.com/content/pdf/10.1007/978-3-540-34469-8_84. Proceedings of the *Sixteenth International Conference on Domain Decomposition Methods*, New York City, January 11–15, 2005.

Logg:2012:DCP

- [LWH12] Anders Logg, Garth N. Wells, and Johan Hake. DOLFIN: a C++/Python finite element library. In Logg et al. [LMW12a], pages 173–225. CODEN LNCSA6. ISBN 3-642-23098-9 (print), 3-642-23099-7 (e-book). ISSN 1439-7358 (print), 2197-7100 (electronic). LCCN ???? URL http://link.springer.com/content/pdf/10.1007/978-3-642-23099-8_10. The software developed by the FEniCS Project is free for all to use and modify (licensed under the GNU (L)GPL), and so is this book.

Li:2011:NSM

- [LWL11] Youyun Li, Li-Lian Wang, and Huiyuan Li. A new spectral method on triangles. In Hesthaven and Rønquist [HR11], pages 237–246. CODEN LNCSA6. ISBN 3-642-15336-4 (print), 3-642-15337-2 (e-book). ISSN 1439-7358 (print), 2197-7100 (electronic). LCCN ???? URL http://link.springer.com/content/pdf/10.1007/978-3-642-15337-2_21.

Lienemann:2005:NHT

- [LYK05] Jan Lienemann, Amirhossein Yousefi, and Jan G. Korvink. Nonlinear heat transfer modeling. In Benner et al. [BMS05c], pages 327–331. CODEN LNCSA6. ISBN 3-540-24545-6 (print), 3-540-27909-1 (e-book). ISSN 1439-7358 (print), 2197-7100 (electronic). LCCN TA347.C68 D56 2005. URL http://link.springer.com/content/pdf/10.1007/3-540-27909-1_13.

Yang:2006:LIE

- [IYR06] Hong liu Yang and Günter Radons. Lyapunov instabilities of extended systems. In Hoffmann and Meyer [HM06], pages 315–333. CODEN LNCSA6. ISBN 3-540-33539-0 (print), 3-540-33541-2 (e-book). ISSN 1439-7358 (print), 2197-7100 (electronic). LCCN QA76.58 .P358 2006. URL http://link.springer.com/content/pdf/10.1007/3-540-33541-2_18.

Liu:2005:BSP

- [LZ05] Wing Kam Liu and Lucy T. Zhang. Bridging scale particle and finite element methods. In Griebel and Schweitzer [GS05], pages 271–290. CODEN LNCSA6. ISBN 3-540-23026-2 (print), 3-540-27099-X (e-book). ISSN 1439-7358 (print), 2197-7100 (electronic). LCCN QA377 .M452 2005. URL http://link.springer.com/content/pdf/10.1007/3-540-27099-X_15. Proceedings of the Second International Workshop on Meshfree Methods for Partial Differential Equations, Institut für Numerische Simulation Rheinische Friedrich–Wilhelms Universität Bonn, September 15–17, 2003.

McInnes:2006:PPB

- [MAAB06] Lois Curfman McInnes, Benjamin A. Allan, Robert Armstrong, and Steven J. Benson. Parallel PDE-based simulations using the common component architecture. In Bruaset and Tveito [BT06], pages 327–381. CODEN LNCSA6. ISBN 3-540-29076-1 (print), 3-540-31619-1 (e-book). ISSN 1439-7358 (print), 2197-7100 (electronic). LCCN QA377 .N87 2006. URL http://link.springer.com/content/pdf/10.1007/3-540-31619-1_10.

Machiels:2000:FEO

- [Mac00] Luc Machiels. Finite element output bounds for parabolic equations: Application to heat conduction problems. In Cockburn et al. [CKS00b], pages 391–396. CODEN LNCSA6. ISBN 3-540-66787-3, 3-642-64098-2 (print), 3-642-59721-1 (e-book). ISSN 1439-7358 (print), 2197-7100 (electronic). LCCN TA347.F5 D57 2000. URL http://link.springer.com/chapter/10.1007/978-3-642-59721-3_38/. Papers from the first international symposium on DGM Newport, Rhode Island, USA, May 24–26, 1999.

Merkert:2015:EAI

- [MAK⁺15] Dennis Merkert, Heiko Andrä, Matthias Kabel, Matti Schneider, and Bernd Simeon. An efficient algorithm to include sub-voxel data in FFT-based homogenization for heat conductivity. In Mehl et al. [MBS15], pages 267–279. ISBN 3-319-22996-6, 3-319-22997-4 (e-book). LCCN QA71-90; TA329. URL http://link.springer.com/chapter/10.1007/978-3-319-22997-3_16/.

Minero:2007:LDC

- [MAM07] Remo Minero, Martijn J. H. Anthonissen, and Robert M. M. Mattheij. Local defect correction for time-dependent partial differential equations. In Widlund and Keyes [WK07], pages 691–698. CODEN LNCSA6. ISBN 3-540-34468-3 (print), 3-540-34469-1 (e-book). ISSN 1439-7358 (print), 2197-7100 (electronic). LCCN QA402.2 .I55 2005. URL http://link.springer.com/content/pdf/10.1007/978-3-540-34469-8_86. Proceedings of the *Sixteenth International Conference on Domain Decomposition Methods*, New York City, January 11–15, 2005.

Martin:2005:SWR

- [Mar05] Véronique Martin. Schwarz waveform relaxation method for the viscous shallow water equations. In Kornhuber et al. [KHP⁺05], pages 653–660. CODEN LNCSA6. ISBN 3-540-22523-4 (print), 3-540-26825-1 (e-book). ISSN 1439-7358 (print), 2197-7100 (electronic). LCCN QA402.2 .I55 2003. URL http://link.springer.com/content/pdf/10.1007/3-540-26825-1_70. Papers from the 15th International Conference on Domain Decomposition, Freie Universität Berlin (FU), Berlin, Germany, July 21–25, 2003.

Marcinkowski:2007:ISM

- [Mar07] Leszek Marcinkowski. An iterative substructuring method for mortar nonconforming discretization of a fourth-order elliptic problem in two dimensions. In Widlund and Keyes [WK07], pages 683–690. CODEN LNCSA6. ISBN 3-540-34468-3 (print), 3-540-34469-1 (e-book). ISSN 1439-7358 (print), 2197-7100 (electronic). LCCN QA402.2 .I55 2005. URL http://link.springer.com/content/pdf/10.1007/978-3-540-34469-8_85. Proceedings of the *Sixteenth International Conference on Domain Decomposition Methods*, New York City, January 11–15, 2005.

Marcinkowski:2009:ANN

- [Mar09] Leszek Marcinkowski. An additive Neumann–Neumann method for mortar finite element for 4th order problems. In Bercovier et al. [BGKW09], pages 323–330. CODEN LNCSA6. ISBN 3-642-02676-1 (print), 3-642-02677-X (e-book). ISSN 1439-7358 (print), 2197-7100 (electronic). LCCN QA402.2 .I584 2009. URL http://link.springer.com/content/pdf/10.1007/978-3-642-02677-5_36.

Mathew:2008:DDM

- [Mat08a] Tarek Poonithara Abraham Mathew. *Domain Decomposition Methods for the Numerical Solution of Partial Differential Equations*, volume 61 of *Lecture Notes in Computational Science and Engineering*. Springer-Verlag Inc., New York, NY, USA, 2008. CODEN LNCSA6. ISBN 3-540-77205-7 (print), 3-540-77209-X (e-book). ISSN 1439-7358 (print), 2197-7100 (electronic). xiii + 764 pp. LCCN QA402.2 .M38 2008. URL <http://link.springer.com/book/10.1007/978-3-540-77209-5>; <http://www.springerlink.com/content/978-3-540-77209-5>.

Mathew:2008:FM

- [Mat08b] Tarek Poonithara Abraham Mathew. Front matter. In *Domain Decomposition Methods for the Numerical Solution of Partial Differential Equations* [Mat08a], pages i–xiii. CODEN LNCSA6. ISBN 3-540-77205-7 (print), 3-540-77209-X (e-book). ISSN 1439-7358 (print), 2197-7100 (electronic). LCCN QA402.2 .M38 2008. URL <http://link.springer.com/content/pdf/bfm:978-3-540-77209-5/1>.

Mavriplis:2011:CHO

- [Mav11] Catherine Mavriplis. The challenges of high order methods in numerical weather prediction. In Hesthaven and Rønquist [HR11], pages 255–266. CODEN LNCSA6. ISBN 3-642-15336-4 (print), 3-642-15337-2 (e-book). ISSN 1439-7358 (print), 2197-7100 (electronic). LCCN ????? URL http://link.springer.com/content/pdf/10.1007/978-3-642-15337-2_23.

Martinez:2001:FCH

- [MB01] G. Martinez and R. Becker. Field calculations of high accuracy by BEM using extrapolation. In van Rienen et al.

[vRGH01], pages 153–160. CODEN LNCSA6. ISBN 3-540-42173-4 (softcover), 3-642-56470-4 (e-book). ISSN 1439-7358 (print), 2197-7100 (electronic). LCCN TK5 .S35 2001. URL http://link.springer.com/content/pdf/10.1007/978-3-642-56470-3_16. Selected contributions presented at the 3rd International Workshop on Scientific Computing in Electrical Engineering.

Marinho:2009:SSN

- [MB09a] Daniel A. Marinho and Tiago M. Barbosa. Swimming simulation: a new tool for swimming research and practical applications. In Peters [Pet09], pages 33–61. CODEN LNCSA6. ISBN 3-642-04465-4 (print), 3-642-04466-2 (e-book). ISSN 1439-7358 (print), 2197-7100 (electronic). LCCN QA911 .C6234 2009. URL http://link.springer.com/content/pdf/10.1007/978-3-642-04466-3_2.

Mukinovic:2009:DMC

- [MB09b] M. Mukinovic and G. Brenner. Direct Monte Carlo simulation of low-speed flows. In Tuncer et al. [TGEM09], pages 313–320. CODEN LNCSA6. ISBN 3-540-92743-3 (print), 3-540-92744-1 (e-book). ISSN 1439-7358 (print), 2197-7100 (electronic). LCCN ????. URL http://link.springer.com/content/pdf/10.1007/978-3-540-92744-0_39. Parallel CFD 2007 was held in Antalya, Turkey, from May 21 to 24, 2007.

Munsch:2010:NSF

- [MB10] M. Münsch and M. Breuer. Numerical simulation of fluid-structure interaction using eddy-resolving schemes. In Bungartz et al. [BMS10], pages 221–253. CODEN LNCSA6. ISBN 3-642-14205-2 (print), 3-642-14206-0 (e-book). ISSN 1439-7358 (print), 2197-7100 (electronic). LCCN TA357.5.F58 F586b 2010. URL http://link.springer.com/content/pdf/10.1007/978-3-642-14206-2_9. Selected contributions from the *First International Workshop on Computational Engineering — special topic Fluid-Structure Interactions* held in Herrsching, Germany, in October 2009.

Montagnier:2011:PCP

- [MBG11] J. Montagnier, M. Buffat, and D. Guibert. Parallel computation of pollutant dispersion in industrial sites. In

Tromeur-Dervout et al. [TDBEE11], pages 399–406. CODEN LNCSA6. ISBN 3-642-14437-3 (print), 3-642-14438-1 (e-book). ISSN 1439-7358 (print), 2197-7100 (electronic). LCCN ????. URL http://link.springer.com/content/pdf/10.1007/978-3-642-14438-7_42. Proceedings of the twentieth meeting, Parallel CFD 2008, held May 19–22, 2008 in Lyon, France.

Monteferrante:2009:CFE

- [MBM09] Michele Monteferrante, Sara Bonella, and Simone Meloni. Calculations of free energy barriers for local mechanisms of hydrogen diffusion in alanates. In Yip and Diaz de la Rubia [YD09], pages 187–206. CODEN LNCSA6. ISBN 1-4020-9740-9 (print), 1-4020-9741-7 (e-book). ISSN 1439-7358 (print), 2197-7100 (electronic). LCCN ????. URL http://link.springer.com/content/pdf/10.1007/978-1-4020-9741-6_13. Previously published in *Scientific Modeling and Simulations*, Volume 15, Issues 1–3, 2008.

Mundani:2007:EVF

- [MBR⁺07] R.-P. Mundani, H.-J. Bungartz, E. Rank, A. Niggel, and R. Romberg. Extending the p -version of finite elements by an octree-based hierarchy. In Widlund and Keyes [WK07], pages 699–706. CODEN LNCSA6. ISBN 3-540-34468-3 (print), 3-540-34469-1 (e-book). ISSN 1439-7358 (print), 2197-7100 (electronic). LCCN QA402.2 .I55 2005. URL http://link.springer.com/content/pdf/10.1007/978-3-540-34469-8_87. Proceedings of the *Sixteenth International Conference on Domain Decomposition Methods*, New York City, January 11–15, 2005.

Mukinovic:2011:ASV

- [MBR11] Merim Mukinović, Gunther Brenner, and Ardavan Rahimi. Aerodynamic study of vertical axis wind turbines. In Tromeur-Dervout et al. [TDBEE11], pages 43–49. CODEN LNCSA6. ISBN 3-642-14437-3 (print), 3-642-14438-1 (e-book). ISSN 1439-7358 (print), 2197-7100 (electronic). LCCN ????. URL http://link.springer.com/content/pdf/10.1007/978-3-642-14438-7_4. Proceedings of the twentieth meeting, Parallel CFD 2008, held May 19–22, 2008 in Lyon, France.

Mehl:2015:RTC

- [MBS15] Miriam Mehl, Manfred Bischoff, and Michael Schäfer, editors. *Recent Trends in Computational Engineering — CE2014: Optimization, Uncertainty, Parallel Algorithms, Coupled and Complex Problems*, volume 105 of *Lecture Notes in Computational Science and Engineering*. Springer-Verlag Inc., New York, NY, USA, 2015. ISBN 3-319-22996-6, 3-319-22997-4 (e-book). 317 (est.) pp. LCCN QA71-90; TA329. URL <http://www.springerlink.com/content/978-3-319-22997-3>.

Marcinkowski:2005:PPS

- [MC05a] Leszek Marcinkowski and Xiao-Chuan Cai. Parallel performance of some two-level ASPIN algorithms. In Kornhuber et al. [KHP⁺05], pages 639–646. CODEN LNCSA6. ISBN 3-540-22523-4 (print), 3-540-26825-1 (e-book). ISSN 1439-7358 (print), 2197-7100 (electronic). LCCN QA402.2 .I55 2003. URL http://link.springer.com/content/pdf/10.1007/3-540-26825-1_68. Papers from the 15th International Conference on Domain Decomposition, Freie Universität Berlin (FU), Berlin, Germany, July 21–25, 2003.

Mihai:2005:TGA

- [MC05b] L. Angela Mihai and Alan W. Craig. A two-grid alternate strip-based domain decomposition strategy in two-dimensions. In Kornhuber et al. [KHP⁺05], pages 661–668. CODEN LNCSA6. ISBN 3-540-22523-4 (print), 3-540-26825-1 (e-book). ISSN 1439-7358 (print), 2197-7100 (electronic). LCCN QA402.2 .I55 2003. URL http://link.springer.com/content/pdf/10.1007/3-540-26825-1_71. Papers from the 15th International Conference on Domain Decomposition, Freie Universität Berlin (FU), Berlin, Germany, July 21–25, 2003.

Marakis:2002:MCS

- [MCBD02] J. G. Marakis, J. Chamiço, G. Brenner, and F. Durst. Monte Carlo simulations of radiative heat transfer with parallel computer architectures. In Breuer et al. [BDZ02], pages 89–96. CODEN LNCSA6. ISBN 3-540-42946-8 (print), 3-642-55919-0 (e-book). ISSN 1439-7358 (print), 2197-7100 (electronic). LCCN Q183.9 .I58 2001. URL http://link.springer.com/content/pdf/10.1007/978-3-642-55919-8_10.

McCormick:2006:TTO

- [McC06] N. J. McCormick. Transport theory for optical oceanography. In Graziani [Gra06], pages 151–163. CODEN LNCSA6. ISBN 3-540-28122-3 (print), 3-540-28125-8 (e-book). ISSN 1439-7358 (print), 2197-7100 (electronic). LCCN MLCM 2006/40189 (Q); QC793.3.T7 C66 2006. URL http://link.springer.com/content/pdf/10.1007/3-540-28125-8_7.

Mauss:2009:AAP

- [MCC09] J. Mauss, P. Cathalifaud, and J. Cousteix. Antisymmetric aspects of a perturbed channel flow. In Hegarty et al. [HKOS09], pages 217–225. CODEN LNCSA6. ISBN 3-642-00604-3 (print), 3-642-00605-1 (e-book). ISSN 1439-7358 (print), 2197-7100 (electronic). LCCN ????? URL http://link.springer.com/content/pdf/10.1007/978-3-642-00605-0_17.

Moser:2007:FWS

- [MD07] Robert D. Moser and Arup Das. Filtering the wall as a solution to the wall-modeling problem. In Kassinos et al. [KLIM07], pages 117–126. CODEN LNCSA6. ISBN 3-540-34233-8 (print), 3-540-34234-6 (e-book). ISSN 1439-7358 (print), 2197-7100 (electronic). LCCN TA357.5.T87 C66 2007. URL http://link.springer.com/content/pdf/10.1007/978-3-540-34234-2_9. Proceedings of the symposium on *Complex Effects in Large Eddy Simulation* held in Lemesos (Limassol), Cyprus, September 21–24, 2005.

Marcinkowski:2008:FDM

- [MD08] Leszek Marcinkowski and Nina Dokeva. A FETI–DP method for mortar finite element discretization of a fourth order problem. In Langer et al. [LDK⁺08], pages 583–590. CODEN LNCSA6. ISBN 3-540-75198-X (print), 3-540-75199-8 (e-book). ISSN 1439-7358 (print), 2197-7100 (electronic). LCCN QA402.2 .I55 2006. URL http://link.springer.com/content/pdf/10.1007/978-3-540-75199-1_73. 17th International Conference on Domain Decomposition Methods held at St. Wolfgang/Strobl, Austria, July 3–7, 2006.

Mesri:2011:HAM

- [MDC11] Y. Mesri, H. Dignonnet, and T. Coupez. Hierarchical adaptive multi-mesh partitioning algorithm on heterogeneous systems.

In Tromeur-Dervout et al. [TDBEE11], pages 299–306. CODEN LNCSA6. ISBN 3-642-14437-3 (print), 3-642-14438-1 (e-book). ISSN 1439-7358 (print), 2197-7100 (electronic). LCCN ????. URL http://link.springer.com/content/pdf/10.1007/978-3-642-14438-7_32. Proceedings of the twentieth meeting, Parallel CFD 2008, held May 19–22, 2008 in Lyon, France.

Mai-Duy:2008:MTB

- [MDTC08] N. Mai-Duy and T. Tran-Cong. A meshless technique based on integrated radial basis function networks for elliptic partial differential equations. In Griebel and Schweitzer [GS08d], pages 141–155. CODEN LNCSA6. ISBN 3-540-79993-1 (print), 3-540-79994-X (e-book). ISSN 1439-7358 (print), 2197-7100 (electronic). LCCN ????. URL http://link.springer.com/content/pdf/10.1007/978-3-540-79994-8_9. Fourth International Workshop on Meshfree Methods for Partial Differential Equations held from September 17 to September 20, 2007 in Bonn, Germany.

McDonough:2009:PST

- [ME09] J. M. McDonough and J. Endean. Parallel simulation of type IIa supernovae explosions using a simplified physical model. In Tuncer et al. [TGEM09], pages 355–362. CODEN LNCSA6. ISBN 3-540-92743-3 (print), 3-540-92744-1 (e-book). ISSN 1439-7358 (print), 2197-7100 (electronic). LCCN ????. URL http://link.springer.com/content/pdf/10.1007/978-3-540-92744-0_44. Parallel CFD 2007 was held in Antalya, Turkey, from May 21 to 24, 2007.

Medeke:2000:AMP

- [Med00] Björn Medeke. On algebraic multilevel preconditioners in lattice gauge theory. In Frommer et al. [FLMS00], pages 99–114. CODEN LNCSA6. ISBN 3-540-67732-1 (print), 3-642-58333-4 (e-book). ISSN 1439-7358 (print), 2197-7100 (electronic). LCCN QC793.3.G38 N86 2000. URL http://link.springer.com/chapter/10.1007/978-3-642-58333-9_8/.

Medvedev:2009:CSS

- [Med09] Alexey V. Medvedev. Case studies of solving large-scale CFD problems by means of the GasDynamicsTool software package. In Tuncer et al. [TGEM09], pages 305–312. CODEN LNCSA6. ISBN 3-540-92743-3 (print), 3-540-92744-1 (e-book). ISSN 1439-7358 (print), 2197-7100 (electronic). LCCN

???? URL http://link.springer.com/content/pdf/10.1007/978-3-540-92744-0_38. Parallel CFD 2007 was held in Antalya, Turkey, from May 21 to 24, 2007.

Meier:1999:AIM

- [Mei99] Robert J. Meier. Applications of ab-initio molecular dynamics simulations in chemistry and polymer science. In Deuffhard et al. [DHL⁺99], pages 433–441. CODEN LNCSA6. ISBN 3-540-63242-5 (print), 3-642-58360-1 (e-book). ISSN 1439-7358 (print), 2197-7100 (electronic). LCCN QP517.M65 I56 1999. URL http://link.springer.com/chapter/10.1007/978-3-642-58360-5_25/.

Meijer:2001:NND

- [Mei01] P. B. L. Meijer. Neural networks for device and circuit modelling. In van Rienen et al. [vRGH01], pages 251–258. CODEN LNCSA6. ISBN 3-540-42173-4 (softcover), 3-642-56470-4 (e-book). ISSN 1439-7358 (print), 2197-7100 (electronic). LCCN TK5 .S35 2001. URL http://link.springer.com/content/pdf/10.1007/978-3-642-56470-3_25. Selected contributions presented at the 3rd International Workshop on Scientific Computing in Electrical Engineering.

Mellema:2009:PID

- [Mel09] Garrelt Mellema. Photo-ionization dynamics simulation. In Engquist et al. [ELR09], pages 307–310. CODEN LNCSA6. ISBN 3-540-88856-X (paperback), 3-540-88857-8 (e-book). ISSN 1439-7358 (print), 2197-7100 (electronic). LCCN Q183.9 .M86 2009. URL http://link.springer.com/content/pdf/10.1007/978-3-540-88857-4_10. Summer School on Multiscale Modeling and Simulation in Science, Bosön, Lidingö outside Stockholm, Sweden, June 2007.

Meyer:2006:BAP

- [Mey06a] Arnd Meyer. Basic approach to parallel finite element computations: The DD data splitting. In Hoffmann and Meyer [HM06], pages 25–35. CODEN LNCSA6. ISBN 3-540-33539-0 (print), 3-540-33541-2 (e-book). ISSN 1439-7358 (print), 2197-7100 (electronic). LCCN QA76.58 .P358 2006. URL http://link.springer.com/content/pdf/10.1007/3-540-33541-2_2.

Meyer:2006:EPS

- [Mey06b] Arnd Meyer. Efficient preconditioners for special situations in finite element computations. In Hoffmann and Meyer [HM06], pages 67–85. CODEN LNCSA6. ISBN 3-540-33539-0 (print), 3-540-33541-2 (e-book). ISSN 1439-7358 (print), 2197-7100 (electronic). LCCN QA76.58 .P358 2006. URL http://link.springer.com/content/pdf/10.1007/3-540-33541-2_5.

Mezei:2002:PMC

- [Mez02] Mihaly Mezei. On the potential of Monte Carlo methods for simulating macromolecular assemblies. In Schlick and Gan [SG02], pages 177–196. CODEN LNCSA6. ISBN 3-540-43756-8 (print), 3-642-56080-6 (e-book). ISSN 1439-7358 (print), 2197-7100 (electronic). LCCN QP517.M3 A384 2000. URL http://link.springer.com/content/pdf/10.1007/978-3-642-56080-4_8.

Moosmann:2005:CTF

- [MG05] Christian Moosmann and Andreas Greiner. Convective thermal flow problems. In Benner et al. [BMS05c], pages 341–343. CODEN LNCSA6. ISBN 3-540-24545-6 (print), 3-540-27909-1 (e-book). ISSN 1439-7358 (print), 2197-7100 (electronic). LCCN TA347.C68 D56 2005. URL http://link.springer.com/content/pdf/10.1007/3-540-27909-1_16.

Matyushin:2009:PCS

- [MG09a] Paul V. Matyushin and Valentin A. Gushchin. Parallel computing of 3D separated stratified fluid flows around a sphere. In Tuncer et al. [TGEM09], pages 321–328. CODEN LNCSA6. ISBN 3-540-92743-3 (print), 3-540-92744-1 (e-book). ISSN 1439-7358 (print), 2197-7100 (electronic). LCCN ????. URL http://link.springer.com/content/pdf/10.1007/978-3-540-92744-0_40. Parallel CFD 2007 was held in Antalya, Turkey, from May 21 to 24, 2007.

Misirlioglu:2009:STM

- [MG09b] Aydin Misirlioglu and Ulgen Gulcat. Separate treatment of momentum and heat flows in parallel environment. In Tuncer et al. [TGEM09], pages 261–266. CODEN LNCSA6. ISBN 3-540-92743-3 (print), 3-540-92744-1 (e-book). ISSN 1439-7358 (print), 2197-7100 (electronic). LCCN ????. URL <http://link.springer.com/content/pdf/10.1007/978-3-540->

92744-0_32. Parallel CFD 2007 was held in Antalya, Turkey, from May 21 to 24, 2007.

Morris:2002:DEM

- [MGB02] Joseph Morris, Lew Glenn, and Stephen Blair. The distinct element method — application to structures in jointed rock. In Griebel and Schweitzer [GS02b], pages 291–306. CODEN LNCSA6. ISBN 3-540-43891-2 (print), 3-642-56103-9 (e-book). ISSN 1439-7358 (print), 2197-7100 (electronic). LCCN QA377 .M45 2003. URL http://link.springer.com/content/pdf/10.1007/978-3-642-56103-0_20. Proceedings of a workshop on Meshfree Methods for Partial Differential Equations, Institut für Angewandte Mathematik, Rheinische Friedrich-Wilhelms Universität Bonn, September 11–14, 2001.

Moldoveanu:2009:TRL

- [MGB09] C. Moldoveanu, A. Giovannini, and H. C. Boisson. Turbulence receptivity of longitudinal vortex-dominated flows. In Hegarty et al. [HKOS09], pages 227–236. CODEN LNCSA6. ISBN 3-642-00604-3 (print), 3-642-00605-1 (e-book). ISSN 1439-7358 (print), 2197-7100 (electronic). LCCN ????. URL http://link.springer.com/content/pdf/10.1007/978-3-642-00605-0_18.

Muske:2003:SQP

- [MH03] Kenneth R. Muske and James W. Howse. A sequential quadratic programming method for nonlinear model predictive control. In Biegler et al. [BGHvBW03a], pages 253–267. CODEN LNCSA6. ISBN 3-540-05045-0 (print), 3-642-55508-X (e-book). ISSN 1439-7358 (print), 2197-7100 (electronic). LCCN QA402.5 .L358 2003. URL http://link.springer.com/content/pdf/10.1007/978-3-642-55508-4_15.

Martinelli:2008:TTV

- [MH08] Massimiliano Martinelli and Laurent Hascoët. Tangent-on-tangent vs. tangent-on-reverse for second differentiation of constrained functionals. In Bischof et al. [BBH⁺08], pages 151–161. CODEN LNCSA6. ISBN 3-540-68935-4 (print), 3-540-68942-7 (e-book). ISSN 1439-7358 (print), 2197-7100 (electronic). LCCN QA304 .I58 2008. URL http://link.springer.com/content/pdf/10.1007/978-3-540-68942-3_14.

Mardal:2012:BPS

- [MH12] Kent-Andre Mardal and Joachim Berdal Haga. Block preconditioning of systems of PDEs. In Logg et al. [LMW12a], pages 643–655. CODEN LNCSA6. ISBN 3-642-23098-9 (print), 3-642-23099-7 (e-book). ISSN 1439-7358 (print), 2197-7100 (electronic). LCCN ??? URL http://link.springer.com/content/pdf/10.1007/978-3-642-23099-8_35. The software developed by the FEniCS Project is free for all to use and modify (licensed under the GNU (L)GPL), and so is this book.

Markert:2015:CMF

- [MH15] Bernd Markert and Yousef Heider. Coupled multi-field continuum methods for porous media fracture. In Mehl et al. [MBS15], pages 167–180. ISBN 3-319-22996-6, 3-319-22997-4 (e-book). LCCN QA71-90; TA329. URL http://link.springer.com/chapter/10.1007/978-3-319-22997-3_10/.

Mahesh:2007:TPL

- [MHB07] Krishnan Mahesh, Yucheng Hou, and Pradeep Babu. Three problems in the large-eddy simulation of complex turbulent flows. In Kassinos et al. [KLIM07], pages 99–115. CODEN LNCSA6. ISBN 3-540-34233-8 (print), 3-540-34234-6 (e-book). ISSN 1439-7358 (print), 2197-7100 (electronic). LCCN TA357.5.T87 C66 2007. URL http://link.springer.com/content/pdf/10.1007/978-3-540-34234-2_8. Proceedings of the symposium on *Complex Effects in Large Eddy Simulation* held in Lemesos (Limassol), Cyprus, September 21–24, 2005.

McClarren:2006:IRS

- [MHBM06] Ryan McClarren, James Paul Holloway, Thomas Brunner, and Thomas Mehlhorn. Implicit Riemann solvers for the P_n equations. In Graziani [Gra06], pages 457–467. CODEN LNCSA6. ISBN 3-540-28122-3 (print), 3-540-28125-8 (e-book). ISSN 1439-7358 (print), 2197-7100 (electronic). LCCN MLCM 2006/40189 (Q); QC793.3.T7 C66 2006. URL http://link.springer.com/content/pdf/10.1007/3-540-28125-8_22.

Munteanu:2001:SPE

- [MI01] I. Munteanu and D. Ioan. A survey on parameter extraction techniques for coupling electromagnetic devices to electric circuits. In van Rienen et al. [vRGH01], pages 337–357. CODEN

LNCSA6. ISBN 3-540-42173-4 (softcover), 3-642-56470-4 (e-book). ISSN 1439-7358 (print), 2197-7100 (electronic). LCCN TK5 .S35 2001. URL http://link.springer.com/content/pdf/10.1007/978-3-642-56470-3_35. Selected contributions presented at the 3rd International Workshop on Scientific Computing in Electrical Engineering.

Moin:2007:CEL

- [MI07] Parviz Moin and Gianluca Iaccarino. Complex effects in large eddy simulations. In Kassinos et al. [KLIM07], pages 1–14. CODEN LNCSA6. ISBN 3-540-34233-8 (print), 3-540-34234-6 (e-book). ISSN 1439-7358 (print), 2197-7100 (electronic). LCCN TA357.5.T87 C66 2007. URL http://link.springer.com/content/pdf/10.1007/978-3-540-34234-2_1. Proceedings of the symposium on *Complex Effects in Large Eddy Simulation* held in Lemesos (Limassol), Cyprus, September 21–24, 2005.

Mijalkovic:2000:EMS

- [Mij00] Slobodan Mijalković. Evaluation of multigrid as a solver for stress analysis problems in semiconductor process simulation. In Dick et al. [DRV00], pages 179–185. CODEN LNCSA6. ISBN 3-540-67157-9 (print), 3-642-58312-1 (e-book). ISSN 1439-7358 (print), 2197-7100 (electronic). LCCN QA377 .E94 1999. URL http://link.springer.com/chapter/10.1007/978-3-642-58312-4_24/.

Miller:2008:SVP

- [Mil08] D. S. Miller. Some verification problems with possible transport applications. In Graziani [Gra08b], pages 169–175. CODEN LNCSA6. ISBN 3-540-77361-4 (print), 3-540-77362-2 (e-book). ISSN 1439-7358 (print), 2197-7100 (electronic). LCCN ???? URL http://link.springer.com/content/pdf/10.1007/978-3-540-77362-7_7. Proceedings of the 2006 Computational Methods in Transport (CMTW) conference.

Moulinec:2011:HPC

- [MIL⁺11] C. Moulinec, R. Issa, D. Latino, P. Vezolle, D. R. Emerson, and X. J. Gu. High-performance computing and smoothed particle hydrodynamics. In Tromeur-Dervout et al. [TDBEE11], pages 265–272. CODEN LNCSA6. ISBN 3-642-14437-3 (print), 3-642-14438-1 (e-book). ISSN 1439-7358

(print), 2197-7100 (electronic). LCCN ???? URL http://link.springer.com/content/pdf/10.1007/978-3-642-14438-7_28. Proceedings of the twentieth meeting, Parallel CFD 2008, held May 19–22, 2008 in Lyon, France.

Mirkin:2008:IEA

- [Mir08] Boris Mirkin. The iterative extraction approach to clustering. In Gorban et al. [GKWZ08], pages 151–177. CODEN LNCSA6. ISBN 3-540-73749-9 (print), 3-540-73750-2 (e-book). ISSN 1439-7358 (print), 2197-7100 (electronic). LCCN QA278.5 .P75 2008. URL http://link.springer.com/content/pdf/10.1007/978-3-540-73750-6_6.

Miyoshi:2002:CCP

- [Miy02] Tetsuhiko Miyoshi. Computational crack path prediction and the singularities in elastic-plastic stress fields. In Babuška et al. [BCM02], pages 289–301. CODEN LNCSA6. ISBN 3-540-42399-0 (print), 3-642-56288-4 (e-book). ISSN 1439-7358 (print), 2197-7100 (electronic). LCCN QA808.2 .I59 2000. URL http://link.springer.com/content/pdf/10.1007/978-3-642-56288-4_20.

Maojun:2011:DDM

- [MJ11] Li Maojun and Zhu Jialin. A domain decomposition method combining a boundary element method with a meshless local Petrov–Galerkin method. In Huang et al. [HKWX11], pages 391–398. CODEN LNCSA6. ISBN 3-642-11303-6 (print), 3-642-11304-4 (e-book). ISSN 1439-7358 (print), 2197-7100 (electronic). LCCN QA402.2 .I58 2011. URL http://link.springer.com/content/pdf/10.1007/978-3-642-11304-8_45. Papers presented at the 19th International Conference on Domain Decomposition, DD19, hosted by the School of Mathematics and Computational Science of the Xiangtan University and the Hunan Key Laboratory for Computation and Simulation in Science and Engineering and held in Zhanjiajie, China, August 17–22, 2009.

Mul:2003:IVC

- [MK03] Elena Mul and Vladimir Kravchenko. Investigations of vibrations in the complex dynamical systems of transmission pipelines. In Emmerich et al. [ENS03], page ?? CODEN LNCSA6. ISBN 3-540-40367-1. ISSN 1439-7358 (print), 2197-7100 (electronic). LCCN QC173.4.I57 I57 2003.

URL <http://www.loc.gov/catdir/enhancements/fy0818/2003060231-d.html>. Papers from the workshop on “Computational Physics of Transport and Interfacial Dynamics”, Dresden, February 25–March 8, 2002.

Mousseau:2000:MNK

- [MKR00] V. A. Mousseau, D. A. Knoll, and W. J. Rider. A multi-grid Newton–Krylov solver for non-linear systems. In Dick et al. [DRV00], pages 200–206. CODEN LNCSA6. ISBN 3-540-67157-9 (print), 3-642-58312-1 (e-book). ISSN 1439-7358 (print), 2197-7100 (electronic). LCCN QA377 .E94 1999. URL http://link.springer.com/chapter/10.1007/978-3-642-58312-4_27/.

Moatamedi:2006:NFS

- [MKZS06] Moji Moatamedi, M. Uzair Khan, Tayeb Zeguer, and Mhamed Souli. A new fluid structure coupling method for airbag OOP. In Bungartz and Schäfer [BS06], pages 101–109. CODEN LNCSA6. ISBN 3-540-34595-7 (print), 3-540-34596-5 (e-book). ISSN 1439-7358 (print), 2197-7100 (electronic). LCCN TA357.5.F58 F586 200. URL http://link.springer.com/content/pdf/10.1007/3-540-34596-5_5. Proceedings of a workshop on fluid-structure interactions held in Hohenwart, Germany, in October 2005.

Mardal:2003:MFE

- [ML03] K.-A. Mardal and H. P. Langtangen. Mixed finite elements. In Langtangen and Tveito [LT03], pages 153–197. CODEN LNCSA6. ISBN 3-540-01438-1 (print), 3-642-18237-2 (e-book). ISSN 1439-7358 (print), 2197-7100 (electronic). LCCN QA377 .A45 2003. URL http://link.springer.com/content/pdf/10.1007/978-3-642-18237-2_4.

Mondie:2004:FEA

- [ML04] Sabine Mondié and Jean Jacques Loiseau. Finite eigenstructure assignment for input delay systems. In Niculescu and Gu [NG04], pages 89–101. CODEN LNCSA6. ISBN 3-540-20890-9 (print), 3-642-18482-0 (e-book). ISSN 1439-7358 (print), 2197-7100 (electronic). LCCN TJ213 .A253 2004. URL http://link.springer.com/content/pdf/10.1007/978-3-642-18482-6_6. Most of the chapters are based on the materials presented in the CNRS-NSF Workshop *Ad-*

vances in Time-Delay Systems held in Paris in January 22–24, 2003.

Monaco:2011:MRT

- [MLB11] Ernesto Monaco, Kai H. Luo, and Gunther Brenner. Multiple relaxation time lattice Boltzmann simulation of binary droplet collisions. In Tromeur-Dervout et al. [TDBEE11], pages 257–264. CODEN LNCSA6. ISBN 3-642-14437-3 (print), 3-642-14438-1 (e-book). ISSN 1439-7358 (print), 2197-7100 (electronic). LCCN ????? URL http://link.springer.com/content/pdf/10.1007/978-3-642-14438-7_27. Proceedings of the twentieth meeting, Parallel CFD 2008, held May 19–22, 2008 in Lyon, France.

Mezzacappa:2006:NTC

- [MLCM06] Anthony Mezzacappa, Matthias Liebendörfer, Christian Y. Cardall, and O. E. Bronson Messer. Neutrino transport in core collapse supernovae. In Graziani [Gra06], pages 35–68. CODEN LNCSA6. ISBN 3-540-28122-3 (print), 3-540-28125-8 (e-book). ISSN 1439-7358 (print), 2197-7100 (electronic). LCCN MLCM 2006/40189 (Q); QC793.3.T7 C66 2006. URL http://link.springer.com/content/pdf/10.1007/3-540-28125-8_3.

Murphy:2005:AMR

- [MLD05] G. C. Murphy, T. Lery, and L. O’C. Drury. Adaptive mesh refinement in a grid computing environment. In Plewa et al. [PLW05], pages 373–377. CODEN LNCSA6. ISBN 3-540-21147-0 (print), 3-540-27039-6 (e-book). ISSN 1439-7358 (print), 2197-7100 (electronic). LCCN QA377 .C46 2003. URL http://link.springer.com/content/pdf/10.1007/3-540-27039-6_27.

Monett:2008:IDD

- [MLG08] Dagmar Monett, René Lamour, and Andreas Griewank. Index determination in DAEs using the library `indexdet` and the ADOL-C package for algorithmic differentiation. In Bischof et al. [BBH⁺08], pages 247–257. CODEN LNCSA6. ISBN 3-540-68935-4 (print), 3-540-68942-7 (e-book). ISSN 1439-7358 (print), 2197-7100 (electronic). LCCN QA304 .I58 2008. URL http://link.springer.com/content/pdf/10.1007/978-3-540-68942-3_22.

Martinez-Lera:2007:LBV

- [MLI07] Paula Martínez-Lera and Salvador Izquierdo. Lattice-Boltzmann LES of vortex shedding in the wake of a square cylinder. In Kassinos et al. [KLIM07], pages 203–217. CODEN LNCSA6. ISBN 3-540-34233-8 (print), 3-540-34234-6 (e-book). ISSN 1439-7358 (print), 2197-7100 (electronic). LCCN TA357.5.T87 C66 2007. URL http://link.springer.com/content/pdf/10.1007/978-3-540-34234-2_15. Proceedings of the symposium on *Complex Effects in Large Eddy Simulation* held in Lemesos (Limassol), Cyprus, September 21–24, 2005.

Mauro:2009:ELG

- [MLV09] John C. Mauro, Roger J. Loucks, and Arun K. Varshneya. Enthalpy landscapes and the glass transition. In Yip and Diaz de la Rubia [YD09], pages 241–281. CODEN LNCSA6. ISBN 1-4020-9740-9 (print), 1-4020-9741-7 (e-book). ISSN 1439-7358 (print), 2197-7100 (electronic). LCCN ????. URL http://link.springer.com/content/pdf/10.1007/978-1-4020-9741-6_15. Previously published in *Scientific Modeling and Simulations*, Volume 15, Issues 1–3, 2008.

Madden:2011:IMN

- [MM11] Niall Madden and Kajal Kumar Mondal. Improved mathematical and numerical modelling of dispersion of a solute from a continuous source. In Clavero et al. [CGL11], pages 177–185. CODEN LNCSA6. ISBN 3-642-19664-0 (print), 3-642-19665-9 (e-book). ISSN 1439-7358 (print), 2197-7100 (electronic). LCCN ????. URL http://link.springer.com/content/pdf/10.1007/978-3-642-19665-2_19. Selected papers from the proceedings of BAIL 2010 (Boundary and Interior Layers — Computational and Asymptotic Methods), held from 5 to 9 July 2010 at the University of Zaragoza, Spain.

Mortensen:2012:STF

- [MML12] Mikael Mortensen, Kent-Andre Mardal, and Hans Petter Langtangen. Simulation of transitional flows. In Logg et al. [LMW12a], pages 421–440. CODEN LNCSA6. ISBN 3-642-23098-9 (print), 3-642-23099-7 (e-book). ISSN 1439-7358 (print), 2197-7100 (electronic). LCCN ????. URL http://link.springer.com/content/pdf/10.1007/978-3-642-23099-8_22. The software developed by the FEniCS Project

is free for all to use and modify (licensed under the GNU (L)GPL), and so is this book.

Mazenc:2004:SSB

- [MMN04] Frédéric Mazenc, Sabine Mondié, and Silviu-Iulian Niculescu. On the stabilization of systems with bounded and delayed input. In Niculescu and Gu [NG04], pages 111–122. CODEN LNCSA6. ISBN 3-540-20890-9 (print), 3-642-18482-0 (e-book). ISSN 1439-7358 (print), 2197-7100 (electronic). LCCN TJ213 .A253 2004. URL http://link.springer.com/content/pdf/10.1007/978-3-642-18482-6_8. Most of the chapters are based on the materials presented in the CNRS-NSF Workshop *Advances in Time-Delay Systems* held in Paris in January 22–24, 2003.

Michiels:2004:EAD

- [MMRD04] Wim Michiels, Sabine Mondié, Dirk Roose, and Michel Dambrine. The effect of approximating distributed delay control laws on stability. In Niculescu and Gu [NG04], pages 207–222. CODEN LNCSA6. ISBN 3-540-20890-9 (print), 3-642-18482-0 (e-book). ISSN 1439-7358 (print), 2197-7100 (electronic). LCCN TJ213 .A253 2004. URL http://link.springer.com/content/pdf/10.1007/978-3-642-18482-6_15. Most of the chapters are based on the materials presented in the CNRS-NSF Workshop *Advances in Time-Delay Systems* held in Paris in January 22–24, 2003.

Masuda:2005:MSA

- [MN05] Sachiko Masuda and Hirohisa Noguchi. Multi-scale analysis using two influence radii in EFGM. In Griebel and Schweitzer [GS05], pages 133–147. CODEN LNCSA6. ISBN 3-540-23026-2 (print), 3-540-27099-X (e-book). ISSN 1439-7358 (print), 2197-7100 (electronic). LCCN QA377 .M452 2005. URL http://link.springer.com/content/pdf/10.1007/3-540-27099-X_8. Proceedings of the Second International Workshop on Meshfree Methods for Partial Differential Equations, Institut für Numerische Simulation Rheinische Friedrich-Wilhelms Universität Bonn, September 15–17, 2003.

Mametjanov:2012:AAD

- [MN12] Azamat Mametjanov and Boyana Norris. Applying automatic differentiation to the community land model. In Forth

et al. [FHP⁺12], pages 47–57. CODEN LNCSA6. ISBN 3-642-30022-7 (print), 3-642-30023-5 (e-book). ISSN 1439-7358 (print), 2197-7100 (electronic). LCCN ???? URL http://link.springer.com/content/pdf/10.1007/978-3-642-30023-3_5. Proceedings of the Sixth International Conference on Automatic Differentiation (AD2012) held July 23–27, 2012, in Fort Collins, Colorado, USA.

Miyaji:2005:PVP

[MNO⁺05] Shigeki Miyaji, Ayato Noro, Tomoya Ogawa, Mitue Den, Kazuyuki Yamashita, and Hiroyoshi Amo. Performance of Vector/ parallel orientated [sic] hydrodynamic code. In Plewa et al. [PLW05], pages 379–390. CODEN LNCSA6. ISBN 3-540-21147-0 (print), 3-540-27039-6 (e-book). ISSN 1439-7358 (print), 2197-7100 (electronic). LCCN QA377 .C46 2003. URL http://link.springer.com/content/pdf/10.1007/3-540-27039-6_28.

Mendez:2007:LES

[MNP07] Simon Mendez, Franck Nicoud, and Thierry Poinsot. Large-eddy simulation of a turbulent flow around a multi-perforated plate. In Kassinos et al. [KLIM07], pages 289–303. CODEN LNCSA6. ISBN 3-540-34233-8 (print), 3-540-34234-6 (e-book). ISSN 1439-7358 (print), 2197-7100 (electronic). LCCN TA357.5.T87 C66 2007. URL http://link.springer.com/content/pdf/10.1007/978-3-540-34234-2_21. Proceedings of the symposium on *Complex Effects in Large Eddy Simulation* held in Lemesos (Limassol), Cyprus, September 21–24, 2005.

Morales:2003:API

[MNW⁺03] José Luis Morales, Jorge Nocedal, Richard A. Waltz, Guanghui Liu, and Jean-Pierre Goux. Assessing the potential of interior methods for nonlinear optimization. In Biegler et al. [BGHvBW03a], pages 167–183. CODEN LNCSA6. ISBN 3-540-05045-0 (print), 3-642-55508-X (e-book). ISSN 1439-7358 (print), 2197-7100 (electronic). LCCN QA402.5 .L358 2003. URL http://link.springer.com/content/pdf/10.1007/978-3-642-55508-4_10.

Mehl:2008:CEI

[MNW08] Miriam Mehl, Tobias Neckel, and Tobias Weinzierl. Concepts for an efficient implementation of domain decomposition approaches for fluid-structure interactions. In Langer

et al. [LDK⁺08], pages 591–598. CODEN LNCSA6. ISBN 3-540-75198-X (print), 3-540-75199-8 (e-book). ISSN 1439-7358 (print), 2197-7100 (electronic). LCCN QA402.2 .I55 2006. URL http://link.springer.com/content/pdf/10.1007/978-3-540-75199-1_74. 17th International Conference on Domain Decomposition Methods held at St. Wolfgang/Strobl, Austria, July 3–7, 2006.

McDowell:2009:CDH

- [MO09] D. L. McDowell and G. B. Olson. Concurrent design of hierarchical materials and structures. In Yip and Diaz de la Rubia [YD09], pages 207–240. CODEN LNCSA6. ISBN 1-4020-9740-9 (print), 1-4020-9741-7 (e-book). ISSN 1439-7358 (print), 2197-7100 (electronic). LCCN ????. URL http://link.springer.com/content/pdf/10.1007/978-1-4020-9741-6_14. Previously published in *Scientific Modeling and Simulations*, Volume 15, Issues 1–3, 2008.

Milewski:2011:GLP

- [MO11] Sławomir Milewski and Janusz Orkisz. Global-local Petrov–Galerkin formulations in the meshless finite difference method. In Griebel and Schweitzer [GS11c], pages 1–26. CODEN LNCSA6. ISBN 3-642-16228-2 (print), 3-642-16229-0 (e-book). ISSN 1439-7358 (print), 2197-7100 (electronic). LCCN ????. URL http://link.springer.com/content/pdf/10.1007/978-3-642-16229-9_1. Proceedings of the Fifth International Workshop on Meshfree Methods for Partial Differential Equations held from August 17 to August 19, 2009 in Bonn, Germany.

Montvay:2000:LSO

- [Mon00] István Montvay. Least-squares optimized polynomials for fermion simulations. In Frommer et al. [FLMS00], pages 153–165. CODEN LNCSA6. ISBN 3-540-67732-1 (print), 3-642-58333-4 (e-book). ISSN 1439-7358 (print), 2197-7100 (electronic). LCCN QC793.3.G38 N86 2000. URL http://link.springer.com/chapter/10.1007/978-3-642-58333-9_12/.

Monaghan:2002:NDS

- [Mon02] Joseph J. Monaghan. New developments in smoothed particle hydrodynamics. In Griebel and Schweitzer [GS02b], pages 281–290. CODEN LNCSA6. ISBN 3-540-43891-2

(print), 3-642-56103-9 (e-book). ISSN 1439-7358 (print), 2197-7100 (electronic). LCCN QA377 .M45 2003. URL http://link.springer.com/content/pdf/10.1007/978-3-642-56103-0_19. Proceedings of a workshop on Meshfree Methods for Partial Differential Equations, Institut für Angewandte Mathematik, Rheinische Friedrich-Wilhelms Universität Bonn, September 11–14, 2001.

Monk:2003:SPC

- [Mon03] Peter Monk. A simple proof of convergence for an edge element discretization of Maxwell's equations. In Carstensen et al. [CFH⁺03], pages 127–141. CODEN LNCSA6. ISBN 3-540-44392-4 (print), 3-642-55745-7 (e-book). ISSN 1439-7358 (print), 2197-7100 (electronic). LCCN QC665.E4 G35 2001. URL http://link.springer.com/content/pdf/10.1007/978-3-642-55745-3_9.

Morel:2006:DOM

- [Mor06] Jim E. Morel. Discrete-ordinates methods for radiative transfer in the non-relativistic stellar regime. In Graziani [Gra06], pages 69–81. CODEN LNCSA6. ISBN 3-540-28122-3 (print), 3-540-28125-8 (e-book). ISSN 1439-7358 (print), 2197-7100 (electronic). LCCN MLCM 2006/40189 (Q); QC793.3.T7 C66 2006. URL http://link.springer.com/content/pdf/10.1007/3-540-28125-8_4.

Micheletti:2005:AMA

- [MP05] Stefano Micheletti and Simona Perotto. Anisotropic mesh adaptivity in CFD. In Plewa et al. [PLW05], pages 171–182. CODEN LNCSA6. ISBN 3-540-21147-0 (print), 3-540-27039-6 (e-book). ISSN 1439-7358 (print), 2197-7100 (electronic). LCCN QA377 .C46 2003. URL http://link.springer.com/content/pdf/10.1007/3-540-27039-6_12.

Munteanu:2008:OAS

- [MP08] Marilena Munteanu and Luca F. Pavarino. An overlapping additive Schwarz–Richardson method for monotone nonlinear parabolic problems. In Langer et al. [LDK⁺08], pages 599–606. CODEN LNCSA6. ISBN 3-540-75198-X (print), 3-540-75199-8 (e-book). ISSN 1439-7358 (print), 2197-7100 (electronic). LCCN QA402.2 .I55 2006. URL http://link.springer.com/content/pdf/10.1007/978-3-540-75199-1_75. 17th International Conference on Domain De-

composition Methods held at St. Wolfgang/Strobl, Austria, July 3–7, 2006.

Montero:2000:RMA

- [MPLT00] R. S. Montero, M. Prieto, I. M. Llorente, and F. Tirado. Robust multigrid algorithms for 3D elliptic equations on structured grids. In Dick et al. [DRV00], pages 193–199. CODEN LNCSA6. ISBN 3-540-67157-9 (print), 3-642-58312-1 (e-book). ISSN 1439-7358 (print), 2197-7100 (electronic). LCCN QA377 .E94 1999. URL http://link.springer.com/chapter/10.1007/978-3-642-58312-4_26/.

Miglio:2005:MSF

- [MPS05] Edie Miglio, Simona Perotto, and Fausto Saleri. A multiphysics strategy for free surface flows. In Kornhuber et al. [KHP⁺05], pages 395–402. CODEN LNCSA6. ISBN 3-540-22523-4 (print), 3-540-26825-1 (e-book). ISSN 1439-7358 (print), 2197-7100 (electronic). LCCN QA402.2 .I55 2003. URL http://link.springer.com/content/pdf/10.1007/3-540-26825-1_40. Papers from the 15th International Conference on Domain Decomposition, Freie Universität Berlin (FU), Berlin, Germany, July 21–25, 2003.

Mohr:2000:MTS

- [MR00] Marcus Mohr and Ulrich Rüde. Multilevel techniques for the solution of the inverse problem of electrocardiography. In Dick et al. [DRV00], pages 186–192. CODEN LNCSA6. ISBN 3-540-67157-9 (print), 3-642-58312-1 (e-book). ISSN 1439-7358 (print), 2197-7100 (electronic). LCCN QA377 .E94 1999. URL http://link.springer.com/chapter/10.1007/978-3-642-58312-4_25/.

Maday:2002:IQF

- [MR02] Yvon Maday and Francesca Rapetti. The influence of quadrature formulas in 2D and 3D mortar element methods. In Pavarino and Toselli [PT02], pages 203–221. CODEN LNCSA6. ISBN 3-540-43413-5 (print), 3-642-56118-7 (e-book). ISSN 1439-7358 (print), 2197-7100 (electronic). LCCN QA402.2 .R43 2002. URL http://link.springer.com/content/pdf/10.1007/978-3-642-56118-4_13. Papers presented at the Workshop on Domain Decomposition held at ETH, Zurich, June 7–8, 2001.

Miller:2003:LBM

- [MR03] Wolfram Miller and Igor Rasin. A Lattice Boltzmann method for the mesoscopic calculation of anisotropic crystal growth. In Emmerich et al. [ENS03], page ?? CODEN LNCSA6. ISBN 3-540-40367-1. ISSN 1439-7358 (print), 2197-7100 (electronic). LCCN QC173.4.I57 I57 2003. URL <http://www.loc.gov/catdir/enhancements/fy0818/2003060231-d.html>. Papers from the workshop on “Computational Physics of Transport and Interfacial Dynamics”, Dresden, February 25–March 8, 2002.

Mauro:2009:AMF

- [MR09] John C. Mauro and Srikanth Raghavan. Advanced modulation formats for fiber optic communication systems. In Yip and Diaz de la Rubia [YD09], pages 283–312. CODEN LNCSA6. ISBN 1-4020-9740-9 (print), 1-4020-9741-7 (e-book). ISSN 1439-7358 (print), 2197-7100 (electronic). LCCN ????. URL http://link.springer.com/content/pdf/10.1007/978-1-4020-9741-6_16. Previously published in *Scientific Modeling and Simulations*, Volume 15, Issues 1–3, 2008.

Meinke:1999:SIF

- [MRRS99] M. Meinke, Th. Rister, F. Rütten, and A. Schvorak. Simulation of internal and free turbulent flows. In Bungartz et al. [BDZ99], pages 61–79. CODEN LNCSA6. ISBN 3-540-65730-4 (print), 3-642-60155-3 (e-book). ISSN 1439-7358 (print), 2197-7100 (electronic). LCCN Q183.9.I58 1998. URL http://link.springer.com/chapter/10.1007/978-3-642-60155-2_6/.

Mehlhorn:1999:IUE

- [MS99] R. Mehlhorn and G. Sachs. Integrated user environment for the numerical solution of optimal control problems. In Bungartz et al. [BDZ99], pages 199–208. CODEN LNCSA6. ISBN 3-540-65730-4 (print), 3-642-60155-3 (e-book). ISSN 1439-7358 (print), 2197-7100 (electronic). LCCN Q183.9.I58 1998. URL http://link.springer.com/chapter/10.1007/978-3-642-60155-2_17/.

Marek:2005:AAS

- [MS05a] Ivo Marek and Daniel B. Szyld. Algebraic analysis of Schwarz methods for singular systems. In Kornhuber et al.

[KHP⁺05], pages 647–652. CODEN LNCSA6. ISBN 3-540-22523-4 (print), 3-540-26825-1 (e-book). ISSN 1439-7358 (print), 2197-7100 (electronic). LCCN QA402.2 .I55 2003. URL http://link.springer.com/content/pdf/10.1007/3-540-26825-1_69. Papers from the 15th International Conference on Domain Decomposition, Freie Universität Berlin (FU), Berlin, Germany, July 21–25, 2003.

McGee:2005:NCF

- [MS05b] Wayne McGee and Padmanabhan Seshaiyer. Non-conforming finite element methods for nonmatching grids in three dimensions. In Kornhuber et al. [KHP⁺05], pages 327–334. CODEN LNCSA6. ISBN 3-540-22523-4 (print), 3-540-26825-1 (e-book). ISSN 1439-7358 (print), 2197-7100 (electronic). LCCN QA402.2 .I55 2003. URL http://link.springer.com/content/pdf/10.1007/3-540-26825-1_32. Papers from the 15th International Conference on Domain Decomposition, Freie Universität Berlin (FU), Berlin, Germany, July 21–25, 2003.

Mehrmann:2005:BTM

- [MS05c] Volker Mehrmann and Tatjana Stykel. Balanced truncation model reduction for large-scale systems in descriptor form. In Benner et al. [BMS05c], pages 83–115. CODEN LNCSA6. ISBN 3-540-24545-6 (print), 3-540-27909-1 (e-book). ISSN 1439-7358 (print), 2197-7100 (electronic). LCCN TA347.C68 D56 2005. URL http://link.springer.com/content/pdf/10.1007/3-540-27909-1_3.

Mehlig:2006:ELW

- [MS06] Bernhard Mehlig and Michael Schreiber. Energy-level and wave-function statistics in the Anderson model of localization. In Hoffmann and Meyer [HM06], pages 255–266. CODEN LNCSA6. ISBN 3-540-33539-0 (print), 3-540-33541-2 (e-book). ISSN 1439-7358 (print), 2197-7100 (electronic). LCCN QA76.58 .P358 2006. URL http://link.springer.com/content/pdf/10.1007/3-540-33541-2_14.

Mandel:2007:ACS

- [MS07] Jan Mandel and Bedrich Sousedik. Adaptive coarse space selection in the BDDC and the FETI–DP iterative substructuring methods: Optimal face degrees of freedom. In Widlund and Keyes [WK07], pages 421–428. CODEN LNCSA6. ISBN

3-540-34468-3 (print), 3-540-34469-1 (e-book). ISSN 1439-7358 (print), 2197-7100 (electronic). LCCN QA402.2 .I55 2005. URL http://link.springer.com/content/pdf/10.1007/978-3-540-34469-8_52. Proceedings of the *Sixteenth International Conference on Domain Decomposition Methods*, New York City, January 11–15, 2005.

Mandel:2011:CSA

- [MS11] Jan Mandel and Bedrich Sousedík. Coarse spaces over the ages. In Huang et al. [HKWX11], pages 213–220. CODEN LNCSA6. ISBN 3-642-11303-6 (print), 3-642-11304-4 (e-book). ISSN 1439-7358 (print), 2197-7100 (electronic). LCCN QA402.2 .I58 2011. URL http://link.springer.com/content/pdf/10.1007/978-3-642-11304-8_23. Papers presented at the 19th International Conference on Domain Decomposition, DD19, hosted by the School of Mathematics and Computational Science of the Xiangtan University and the Hunan Key Laboratory for Computation and Simulation in Science and Engineering and held in Zhanjiajie, China, August 17–22, 2009.

Merci:2000:AMT

- [MSD00] Bart Merci, Johan Steelant, and E. Dick. Application of multigrid in two-equation turbulence modelling. In Dick et al. [DRV00], pages 171–178. CODEN LNCSA6. ISBN 3-540-67157-9 (print), 3-642-58312-1 (e-book). ISSN 1439-7358 (print), 2197-7100 (electronic). LCCN QA377 .E94 1999. URL http://link.springer.com/chapter/10.1007/978-3-642-58312-4_23/.

Mandel:2008:MB

- [MSD08] Jan Mandel, Bedrich Sousedík, and Clark R. Dohrmann. On multilevel BDDC. In Langer et al. [LDK⁺08], pages 287–294. CODEN LNCSA6. ISBN 3-540-75198-X (print), 3-540-75199-8 (e-book). ISSN 1439-7358 (print), 2197-7100 (electronic). LCCN QA402.2 .I55 2006. URL http://link.springer.com/content/pdf/10.1007/978-3-540-75199-1_33. 17th International Conference on Domain Decomposition Methods held at St. Wolfgang/Strobl, Austria, July 3–7, 2006.

Mardal:2003:SPB

- [MSL03] K.-A. Mardal, J. Sundnes, and H. P. Langtangen. Systems of PDEs and Block preconditioning. In Langtangen and

Tveito [LT03], pages 199–236. CODEN LNCSA6. ISBN 3-540-01438-1 (print), 3-642-18237-2 (e-book). ISSN 1439-7358 (print), 2197-7100 (electronic). LCCN QA377 .A45 2003. URL http://link.springer.com/content/pdf/10.1007/978-3-642-18237-2_5.

Mark:1999:ERF

[MSLvG99] Alan E. Mark, Heiko Schäfer, Haiyan Liu, and Wilfred van Gunsteren. Estimating relative free energies from a single simulation of the initial state. In Deuffhard et al. [DHL⁺99], pages 149–162. CODEN LNCSA6. ISBN 3-540-63242-5 (print), 3-642-58360-1 (e-book). ISSN 1439-7358 (print), 2197-7100 (electronic). LCCN QP517.M65 I56 1999. URL http://link.springer.com/chapter/10.1007/978-3-642-58360-5_8/.

Mishra:2013:MLM

[MSS13] Siddhartha Mishra, Christoph Schwab, and Jonas Sukys. Multi-level Monte Carlo finite volume methods for uncertainty quantification in nonlinear systems of balance laws. In Bijl et al. [BLMS13], pages 225–294. ISBN 3-319-00884-6 (hardcover), 3-319-00885-4 (e-book). ISSN 1439-7358 (print), 2197-7100 (electronic). LCCN ???? URL http://link.springer.com/chapter/10.1007/978-3-319-00885-1_6/.

Michelsson:2001:ACE

[MSU01] O. Michelsson, G. Scheinert, and F. H. Uhlmann. Analysis of coupled electromagnetic and thermal fields in the instationary case. In van Rienen et al. [vRGH01], pages 407–415. CODEN LNCSA6. ISBN 3-540-42173-4 (softcover), 3-642-56470-4 (e-book). ISSN 1439-7358 (print), 2197-7100 (electronic). LCCN TK5 .S35 2001. URL http://link.springer.com/content/pdf/10.1007/978-3-642-56470-3_41. Selected contributions presented at the 3rd International Workshop on Scientific Computing in Electrical Engineering.

Ma:2006:MSB

[MSW⁺06] Marc Q. Ma, Kentaro Sugino, Yu Wang, Narain Gehani, and Annie V. Beuve. Modeling and simulation based approaches for investigating allosteric regulation in enzymes. In Leimkuhler et al. [LCE⁺06], pages 21–34. CODEN LNCSA6. ISBN 3-540-25542-7 (print), 3-540-31618-3 (e-book). ISSN 1439-7358 (print), 2197-7100 (electronic). LCCN QP517.M3 N49

2006. URL http://link.springer.com/content/pdf/10.1007/3-540-31618-3_2. Papers from the fourth edition of *Algorithms for Macromolecular Modelling*, Leicester, UK August 2004.

Muravin:2002:ADM

- [MT02] Boris Muravin and Eli Turkei. Advance diffraction method as a tool for solution of complex non-convex boundary problems-implementation and practical application. In Griebel and Schweitzer [GS02b], pages 307–317. CODEN LNCSA6. ISBN 3-540-43891-2 (print), 3-642-56103-9 (e-book). ISSN 1439-7358 (print), 2197-7100 (electronic). LCCN QA377 .M45 2003. URL http://link.springer.com/content/pdf/10.1007/978-3-642-56103-0_21. Proceedings of a workshop on Meshfree Methods for Partial Differential Equations, Institut für Angewandte Mathematik, Rheinische Friedrich-Wilhelms Universität Bonn, September 11–14, 2001.

Maday:2005:PTI

- [MT05] Yvon Maday and Gabriel Turinici. The Parareal in time iterative solver: a further direction to parallel implementation. In Kornhuber et al. [KHP⁺05], pages 441–448. CODEN LNCSA6. ISBN 3-540-22523-4 (print), 3-540-26825-1 (e-book). ISSN 1439-7358 (print), 2197-7100 (electronic). LCCN QA402.2 .I55 2003. URL http://link.springer.com/content/pdf/10.1007/3-540-26825-1_45. Papers from the 15th International Conference on Domain Decomposition, Freie Universität Berlin (FU), Berlin, Germany, July 21–25, 2003.

Muravin:2005:SDM

- [MTM05] Boris Muravin, Eli Turkel, and Gregory Muravin. Solution of a dynamic main crack interaction with a system of micro-cracks by the element free Galerkin method. In Griebel and Schweitzer [GS05], pages 149–167. CODEN LNCSA6. ISBN 3-540-23026-2 (print), 3-540-27099-X (e-book). ISSN 1439-7358 (print), 2197-7100 (electronic). LCCN QA377 .M452 2005. URL http://link.springer.com/content/pdf/10.1007/3-540-27099-X_9. Proceedings of the Second International Workshop on Meshfree Methods for Partial Differential Equations, Institut für Numerische Simulation Rheinische Friedrich-Wilhelms Universität Bonn, September 15–17, 2003.

Muller:2003:AFV

- [Mül03a] Siegfried Müller. Adaptive finite volume scheme. In *Adaptive Multiscale Schemes for Conservation Laws* [Mül03b], pages 73–87. CODEN LNCSA6. ISBN 3-540-44325-8 (print), 3-642-18164-3 (e-book). ISSN 1439-7358 (print), 2197-7100 (electronic). LCCN QA377 .M92 2003. URL http://link.springer.com/content/pdf/10.1007/978-3-642-18164-1_4.

Muller:2003:AMS

- [Mül03b] Siegfried Müller. *Adaptive Multiscale Schemes for Conservation Laws*, volume 27 of *Lecture Notes in Computational Science and Engineering*. Springer-Verlag Inc., New York, NY, USA, 2003. CODEN LNCSA6. ISBN 3-540-44325-8 (print), 3-642-18164-3 (e-book). ISSN 1439-7358 (print), 2197-7100 (electronic). xiv + 181 pp. LCCN QA377 .M92 2003. URL <http://link.springer.com/book/10.1007/978-3-642-18164-1>; <http://www.springerlink.com/content/978-3-642-18164-1>.

Muller:2003:DSM

- [Mül03c] Siegfried Müller. Data structures and memory management. In *Adaptive Multiscale Schemes for Conservation Laws* [Mül03b], pages 113–121. CODEN LNCSA6. ISBN 3-540-44325-8 (print), 3-642-18164-3 (e-book). ISSN 1439-7358 (print), 2197-7100 (electronic). LCCN QA377 .M92 2003. URL http://link.springer.com/content/pdf/10.1007/978-3-642-18164-1_6.

Muller:2003:EA

- [Mül03d] Siegfried Müller. Error analysis. In *Adaptive Multiscale Schemes for Conservation Laws* [Mül03b], pages 89–111. CODEN LNCSA6. ISBN 3-540-44325-8 (print), 3-642-18164-3 (e-book). ISSN 1439-7358 (print), 2197-7100 (electronic). LCCN QA377 .M92 2003. URL http://link.springer.com/content/pdf/10.1007/978-3-642-18164-1_5.

Muller:2003:FM

- [Mül03e] Siegfried Müller. Front matter. In *Adaptive Multiscale Schemes for Conservation Laws* [Mül03b], pages i–xiv. CODEN LNCSA6. ISBN 3-540-44325-8 (print), 3-642-18164-3 (e-book). ISSN 1439-7358 (print), 2197-7100 (electronic).

LCCN QA377 .M92 2003. URL <http://link.springer.com/content/pdf/bfm:978-3-642-18164-1/1>.

Muller:2003:LRS

- [Mül03f] Siegfried Müller. Locally refined spaces. In *Adaptive Multiscale Schemes for Conservation Laws* [Mül03b], pages 33–72. CODEN LNCSA6. ISBN 3-540-44325-8 (print), 3-642-18164-3 (e-book). ISSN 1439-7358 (print), 2197-7100 (electronic). LCCN QA377 .M92 2003. URL http://link.springer.com/content/pdf/10.1007/978-3-642-18164-1_3.

Muller:2003:MPD

- [Mül03g] Siegfried Müller. Model problem and its discretization. In *Adaptive Multiscale Schemes for Conservation Laws* [Mül03b], pages 1–10. CODEN LNCSA6. ISBN 3-540-44325-8 (print), 3-642-18164-3 (e-book). ISSN 1439-7358 (print), 2197-7100 (electronic). LCCN QA377 .M92 2003. URL http://link.springer.com/content/pdf/10.1007/978-3-642-18164-1_1.

Muller:2003:MS

- [Mül03h] Siegfried Müller. Multiscale setting. In *Adaptive Multiscale Schemes for Conservation Laws* [Mül03b], pages 11–31. CODEN LNCSA6. ISBN 3-540-44325-8 (print), 3-642-18164-3 (e-book). ISSN 1439-7358 (print), 2197-7100 (electronic). LCCN QA377 .M92 2003. URL http://link.springer.com/content/pdf/10.1007/978-3-642-18164-1_2.

Muller:2003:NE

- [Mül03i] Siegfried Müller. Numerical experiments. In *Adaptive Multiscale Schemes for Conservation Laws* [Mül03b], pages 123–138. CODEN LNCSA6. ISBN 3-540-44325-8 (print), 3-642-18164-3 (e-book). ISSN 1439-7358 (print), 2197-7100 (electronic). LCCN QA377 .M92 2003. URL http://link.springer.com/content/pdf/10.1007/978-3-642-18164-1_7.

Manzhos:2011:efd

- [MY11] Sergei Manzhos and Koichi Yamashita. Extracting functional dependence from sparse data using dimensionality reduction: Application to potential energy surface construction. In Gorbun and Roose [GR11b], pages 133–149. CODEN LNCSA6. ISBN 3-642-14940-5 (print), 3-642-14941-3 (e-book). ISSN

1439-7358 (print), 2197-7100 (electronic). LCCN QA401 .C67 2011. URL http://link.springer.com/content/pdf/10.1007/978-3-642-14941-2_7. Extended versions of selected talks given at the international research workshop: *Coping with Complexity: Model Reduction and Data Analysis*, Ambleside, Lake District, UK, August 31–September 4, 2009 in conjunction with the A4A6, the *6th Conference on Algorithms for Approximation*.

Mann:2002:SMP

- [MYN⁺02] Geoff Mann, R. H. Yun, Lars Nyland, Jan Prins, John Board, and Jan Hermans. The sigma MD program and a generic interface applicable to multi-functional programs with complex, hierarchical command structure. In Schlick and Gan [SG02], pages 129–145. CODEN LNCSA6. ISBN 3-540-43756-8 (print), 3-642-56080-6 (e-book). ISSN 1439-7358 (print), 2197-7100 (electronic). LCCN QP517.M3 A384 2000. URL http://link.springer.com/content/pdf/10.1007/978-3-642-56080-4_6.

Mardal:2003:STM

- [MZ03] K.-A. Mardal and G. W. Zumbusch. Software tools for multigrid methods. In Langtangen and Tveito [LT03], pages 97–151. CODEN LNCSA6. ISBN 3-540-01438-1 (print), 3-642-18237-2 (e-book). ISSN 1439-7358 (print), 2197-7100 (electronic). LCCN QA377 .A45 2003. URL http://link.springer.com/content/pdf/10.1007/978-3-642-18237-2_3.

Marica:2014:BSN

- [MZ14] Aurora Marica and Enrique Zuazua. Boundary stabilization of numerical approximations of the 1-D variable coefficients wave equation: a numerical viscosity approach. In Hoppe [Hop14], pages 285–324. ISBN 3-319-08024-5 (paperback), 3-319-08025-3 (e-book). ISSN 1439-7358 (print), 2197-7100 (electronic). LCCN QA71-90; QA377. URL http://link.springer.com/chapter/10.1007/978-3-319-08025-3_9/.

Narayanan:2012:CFN

- [Nar12] Harish Narayanan. A computational framework for nonlinear elasticity. In Logg et al. [LMW12a], pages 525–541. CODEN LNCSA6. ISBN 3-642-23098-9 (print), 3-642-23099-7 (e-book). ISSN 1439-7358 (print), 2197-7100 (electronic). LCCN

???? URL http://link.springer.com/content/pdf/10.1007/978-3-642-23099-8_27. The software developed by the FEniCS Project is free for all to use and modify (licensed under the GNU (L)GPL), and so is this book.

Nataf:2007:RDO

- [Nat07] Frédéric Nataf. Recent developments on optimized Schwarz methods. In Widlund and Keyes [WK07], pages 115–125. CODEN LNCSA6. ISBN 3-540-34468-3 (print), 3-540-34469-1 (e-book). ISSN 1439-7358 (print), 2197-7100 (electronic). LCCN QA402.2 .I55 2005. URL http://link.springer.com/content/pdf/10.1007/978-3-540-34469-8_10. Proceedings of the *Sixteenth International Conference on Domain Decomposition Methods*, New York City, January 11–15, 2005.

Nataf:2009:OSM

- [Nat09] F. Nataf. Optimized Schwarz methods. In Bercovier et al. [BGKW09], pages 233–240. CODEN LNCSA6. ISBN 3-642-02676-1 (print), 3-642-02677-X (e-book). ISSN 1439-7358 (print), 2197-7100 (electronic). LCCN QA402.2 .I584 2009. URL http://link.springer.com/content/pdf/10.1007/978-3-642-02677-5_25.

Naumann:2008:CTR

- [Nau08] Uwe Naumann. Call tree reversal is NP-Complete. In Bischof et al. [BBH⁺08], pages 13–22. CODEN LNCSA6. ISBN 3-540-68935-4 (print), 3-540-68942-7 (e-book). ISSN 1439-7358 (print), 2197-7100 (electronic). LCCN QA304 .I58 2008. URL http://link.springer.com/content/pdf/10.1007/978-3-540-68942-3_2.

Nogueira:2008:HOF

- [NCF08] Xesús Nogueira and Luis Cueto-Felgueroso. A higher-order finite volume method using multiresolution reproducing kernels. In Griebel and Schweitzer [GS08d], pages 157–171. CODEN LNCSA6. ISBN 3-540-79993-1 (print), 3-540-79994-X (e-book). ISSN 1439-7358 (print), 2197-7100 (electronic). LCCN ????? URL http://link.springer.com/content/pdf/10.1007/978-3-540-79994-8_10. Fourth International Workshop on Meshfree Methods for Partial Differential Equations held from September 17 to September 20, 2007 in Bonn, Germany.

Nigro:2014:HOD

- [NDBG14] Alessandra Nigro, Carmine De Bartolo, Francesco Bassi, and Antonio Ghidoni. High-order discontinuous Galerkin solution of unsteady flows by using an advanced implicit method. In Abgrall et al. [ABC⁺14], pages 135–149. ISBN 3-319-05454-6 (paperback), 3-319-05455-4 (e-book). ISSN 1439-7358 (print), 2197-7100 (electronic). LCCN QA374 .A384 2014. URL http://link.springer.com/chapter/10.1007/978-3-319-05455-1_8/.

Neumaier:1999:NTC

- [NDHS99] Arnold Neumaier, Stefan Dallwig, Waltraud Huyer, and Hermann Schichl. New techniques for the construction of residue potentials for protein folding. In Deuffhard et al. [DHL⁺99], pages 212–224. CODEN LNCSA6. ISBN 3-540-63242-5 (print), 3-642-58360-1 (e-book). ISSN 1439-7358 (print), 2197-7100 (electronic). LCCN QP517.M65 I56 1999. URL http://link.springer.com/chapter/10.1007/978-3-642-58360-5_12/.

Nehmeier:2012:GPA

- [Neh12] Marco Nehmeier. Generative programming for automatic differentiation. In Forth et al. [FHP⁺12], pages 261–271. CODEN LNCSA6. ISBN 3-642-30022-7 (print), 3-642-30023-5 (e-book). ISSN 1439-7358 (print), 2197-7100 (electronic). LCCN ????. URL http://link.springer.com/content/pdf/10.1007/978-3-642-30023-3_24. Proceedings of the Sixth International Conference on Automatic Differentiation (AD2012) held July 23–27, 2012, in Fort Collins, Colorado, USA.

Neuberger:2000:ODO

- [Neu00] Herbert Neuberger. The overlap Dirac operator. In Frommer et al. [FLMS00], pages 1–17. CODEN LNCSA6. ISBN 3-540-67732-1 (print), 3-642-58333-4 (e-book). ISSN 1439-7358 (print), 2197-7100 (electronic). LCCN QC793.3.G38 N86 2000. URL http://link.springer.com/chapter/10.1007/978-3-642-58333-9_1/.

Neuss:2003:UCL

- [Neu03] Nicolas Neuss. On using Common Lisp for scientific computing. In Bänisch [Bän03], pages 237–245. CODEN LNCSA6. ISBN 3-642-62406-5 (print), 3-642-19014-6 (e-book). ISSN 1439-7358 (print), 2197-7100 (electronic). LCCN

???? URL http://link.springer.com/content/pdf/10.1007/978-3-642-19014-8_11.

Neuberger:2005:ILC

- [Neu05] Herbert Neuberger. An introduction to lattice chiral fermions. In Boriçi et al. [BFJ⁺05], pages 3–13. CODEN LNCSA6. ISBN 3-540-21257-4 (print), 3-540-28504-0 (e-book). ISSN 1439-7358 (print), 2197-7100 (electronic). LCCN QC793.3.Q35 I56 2003. URL http://link.springer.com/content/pdf/10.1007/3-540-28504-0_1.

Niculescu:2004:ATD

- [NG04] Silviu-Iulian Niculescu and Keqin Gu, editors. *Advances in Time-Delay Systems*, volume 38 of *Lecture Notes in Computational Science and Engineering*. Springer-Verlag Inc., New York, NY, USA, 2004. CODEN LNCSA6. ISBN 3-540-20890-9 (print), 3-642-18482-0 (e-book). ISSN 1439-7358 (print), 2197-7100 (electronic). LCCN TJ213 .A253 2004. URL <http://link.springer.com/book/10.1007/978-3-642-18482-6>; <http://www.springerlink.com/content/978-3-642-18482-6>. Most of the chapters are based on the materials presented in the CNRS-NSF Workshop *Advances in Time-Delay Systems* held in Paris in January 22–24, 2003.

Niu:2015:HCW

- [NGD⁺15] Yanpo Niu, Zhen Gao, Wai Sun Don, Shusen Xie, and Peng Li. Hybrid compact-WENO finite difference scheme for detonation waves simulations. In Kirby et al. [KBH15], pages 179–187. ISBN 3-319-19799-1, 3-319-19800-9 (e-book). LCCN QA377. URL http://link.springer.com/chapter/10.1007/978-3-319-19800-2_14/.

Najjar:2009:HSM

- [NHF09] F. M. Najjar, A. Haselbacher, and R. Fiedler. Highly scalable multiphysics computational framework for propulsive energetic systems. In Tuncer et al. [TGEM09], pages 131–138. CODEN LNCSA6. ISBN 3-540-92743-3 (print), 3-540-92744-1 (e-book). ISSN 1439-7358 (print), 2197-7100 (electronic). LCCN ????? URL http://link.springer.com/content/pdf/10.1007/978-3-540-92744-0_16. Parallel CFD 2007 was held in Antalya, Turkey, from May 21 to 24, 2007.

Nishida:2002:PFH

- [NI02] Takaaki Nishida and Tsutomu Ikeda. Pattern formation of heat convection problems. In Babuška et al. [BCM02], pages 209–218. CODEN LNCSA6. ISBN 3-540-42399-0 (print), 3-642-56288-4 (e-book). ISSN 1439-7358 (print), 2197-7100 (electronic). LCCN QA808.2 .I59 2000. URL http://link.springer.com/content/pdf/10.1007/978-3-642-56288-4_15.

Nishida:2011:EPC

- [NI11] Hidetoshi Nishida and Nobuyuki Ichikawa. Effective parallel computation of incompressible turbulent flows on non-uniform grid. In Tromeur-Dervout et al. [TDBEE11], pages 417–424. CODEN LNCSA6. ISBN 3-642-14437-3 (print), 3-642-14438-1 (e-book). ISSN 1439-7358 (print), 2197-7100 (electronic). LCCN ???? URL http://link.springer.com/content/pdf/10.1007/978-3-642-14438-7_44. Proceedings of the twentieth meeting, Parallel CFD 2008, held May 19–22, 2008 in Lyon, France.

Nikiforakis:2005:AGA

- [Nik05] N. Nikiforakis. AMR for global atmospheric modelling. In Plewa et al. [PLW05], pages 505–526. CODEN LNCSA6. ISBN 3-540-21147-0 (print), 3-540-27039-6 (e-book). ISSN 1439-7358 (print), 2197-7100 (electronic). LCCN QA377 .C46 2003. URL http://link.springer.com/content/pdf/10.1007/3-540-27039-6_38.

Nedialkov:2000:OSC

- [NJ00] Nedialko S. Nedialkov and Kenneth R. Jackson. ODE software that computes guaranteed bounds on the solution. In Langtangen et al. [LBQ00], pages 197–224. CODEN LNCSA6. ISBN 3-540-66557-9 (softcover), 3-642-57172-7 (e-book). ISSN 1439-7358 (print), 2197-7100 (electronic). LCCN QA76.6 .A336 2000. URL http://link.springer.com/chapter/10.1007/978-3-642-57172-5_6/. Papers from an International Workshop on Modern Software Tools for Scientific Computing (SciTools'98), Oslo, Norway, September 14–16, 1998.

Nilsson:2005:MSE

- [NL05] Martin Nilsson and Per Lötstedt. Multipole solution of electromagnetic scattering problems with many, parameter dependent incident waves. In Engquist et al. [ERL05], pages

195–203. CODEN LNCSA6. ISBN 3-540-25335-1 (print), 3-540-26444-2 (e-book). ISSN 1439-7358 (print), 2197-7100 (electronic). LCCN TA347.F5 M85 2005. URL http://link.springer.com/content/pdf/10.1007/3-540-26444-2_10. Proceedings of *Multiscale Methods in Science and Engineering*, Uppsala, Sweden, January 26–28, 2004.

Nadler:2008:DMP

- [NLC08] Boaz Nadler, Stephane Lafon, and Ronald Coifman. Diffusion maps — a probabilistic interpretation for spectral embedding and clustering algorithms. In Gorban et al. [GKWZ08], pages 238–260. CODEN LNCSA6. ISBN 3-540-73749-9 (print), 3-540-73750-2 (e-book). ISSN 1439-7358 (print), 2197-7100 (electronic). LCCN QA278.5 .P75 2008. URL http://link.springer.com/content/pdf/10.1007/978-3-540-73750-6_10.

Nair:2011:ENM

- [NLL11] Ramachandran D. Nair, Michael N. Levy, and Peter H. Lauritzen. Emerging numerical methods for atmospheric modeling. In Lauritzen et al. [LJTN11], pages 251–311. CODEN LNCSA6. ISBN 3-642-11639-6 (print), 3-642-11640-X (e-book). ISSN 1439-7358 (print), 2197-7100 (electronic). LCCN QC861.3 .N86 2011. URL http://link.springer.com/content/pdf/10.1007/978-3-642-11640-7_9. Proceedings of the colloquium *Numerical Techniques for Global Atmospheric Models* held at the National Center for Atmospheric Research (NCAR) in Boulder, Colorado, 1–13 June 2008.

Narayanan:2012:IPS

- [NN12] Sri Hari Krishna Narayanan and Boyana Norris. Implementation of partial separability in a source-to-source transformation AD tool. In Forth et al. [FHP⁺12], pages 343–353. CODEN LNCSA6. ISBN 3-642-30022-7 (print), 3-642-30023-5 (e-book). ISSN 1439-7358 (print), 2197-7100 (electronic). LCCN ????. URL http://link.springer.com/content/pdf/10.1007/978-3-642-30023-3_31. Proceedings of the Sixth International Conference on Automatic Differentiation (AD2012) held July 23–27, 2012, in Fort Collins, Colorado, USA.

Norstrud:2009:CSS

- [NØ09] Helge Nørstrud and I. J. Øye. On CFD simulation of ski jumping. In Peters [Pet09], pages 63–82. CODEN LNCSA6. ISBN

3-642-04465-4 (print), 3-642-04466-2 (e-book). ISSN 1439-7358 (print), 2197-7100 (electronic). LCCN QA911 .C6234 2009. URL http://link.springer.com/content/pdf/10.1007/978-3-642-04466-3_3.

Norman:2005:IAN

- [Nor05] Michael L. Norman. The impact of AMR in numerical astrophysics and cosmology. In Plewa et al. [PLW05], pages 413–430. CODEN LNCSA6. ISBN 3-540-21147-0 (print), 3-540-27039-6 (e-book). ISSN 1439-7358 (print), 2197-7100 (electronic). LCCN QA377 .C46 2003. URL http://link.springer.com/content/pdf/10.1007/3-540-27039-6_31.

Nordbotten:2009:MMM

- [Nor09] Jan M. Nordbotten. Multiscale methods for multiphase flow in porous media. In Bercovier et al. [BGKW09], pages 39–50. CODEN LNCSA6. ISBN 3-642-02676-1 (print), 3-642-02677-X (e-book). ISSN 1439-7358 (print), 2197-7100 (electronic). LCCN QA402.2 .I584 2009. URL http://link.springer.com/content/pdf/10.1007/978-3-642-02677-5_4.

Notay:2000:AMP

- [Not00] Yvan Notay. On algebraic multilevel preconditioning. In Frommer et al. [FLMS00], pages 84–98. CODEN LNCSA6. ISBN 3-540-67732-1 (print), 3-642-58333-4 (e-book). ISSN 1439-7358 (print), 2197-7100 (electronic). LCCN QC793.3.G38 N86 2000. URL http://link.springer.com/chapter/10.1007/978-3-642-58333-9_7/.

Narin:2009:APP

- [NÖU09] Bekir Narin, Yusuf Özyörük, and Abdullah Ulaş. Application of parallel processing to numerical modeling of two-phase deflagration-to-detonation (DDT) phenomenon. In Tuncer et al. [TGEM09], pages 123–130. CODEN LNCSA6. ISBN 3-540-92743-3 (print), 3-540-92744-1 (e-book). ISSN 1439-7358 (print), 2197-7100 (electronic). LCCN ????. URL http://link.springer.com/content/pdf/10.1007/978-3-540-92744-0_15. Parallel CFD 2007 was held in Antalya, Turkey, from May 21 to 24, 2007.

Nepomnyaschikh:2005:PHP

- [NP05] Sergey V. Nepomnyaschikh and Eun-Jae Park. Preconditioning for heterogeneous problems. In Kornhuber et al.

[KHP⁺05], pages 415–422. CODEN LNCSA6. ISBN 3-540-22523-4 (print), 3-540-26825-1 (e-book). ISSN 1439-7358 (print), 2197-7100 (electronic). LCCN QA402.2 .I55 2003. URL http://link.springer.com/content/pdf/10.1007/3-540-26825-1_42. Papers from the 15th International Conference on Domain Decomposition, Freie Universität Berlin (FU), Berlin, Germany, July 21–25, 2003.

Nolen:2012:MMI

- [NP12] James Nolen and Grigorios A. Pavliotis. Multiscale modelling and inverse problems. In Graham et al. [GHLS12], pages 1–34. CODEN LNCSA6. ISBN 3-642-22060-6 (print), 3-642-22061-4 (e-book). ISSN 1439-7358 (print), 2197-7100 (electronic). LCCN QA297 .N844 2012. URL http://link.springer.com/content/pdf/10.1007/978-3-642-22061-6_1. Ten invited expository articles from the 91st LMS Durham Symposium on *Numerical Analysis of Multiscale Problems*, Durham, UK, 5–15 July 2010.

Nguyen:2011:HDG

- [NPC11] N. C. Nguyen, J. Peraire, and B. Cockburn. Hybridizable discontinuous Galerkin methods. In Hesthaven and Rønquist [HR11], pages 63–84. CODEN LNCSA6. ISBN 3-642-15336-4 (print), 3-642-15337-2 (e-book). ISSN 1439-7358 (print), 2197-7100 (electronic). LCCN ???? URL http://link.springer.com/content/pdf/10.1007/978-3-642-15337-2_4.

Niehof:2001:ESR

- [NPLM01] J. Niehof, N. J. Pulsford, I. Lodema, and J. Meeuwis. Electromagnetic simulation of real-life circuits: a mobile phone power amplifier module and an FM radio tuner PCB. In van Rienen et al. [vRGH01], pages 277–284. CODEN LNCSA6. ISBN 3-540-42173-4 (softcover), 3-642-56470-4 (e-book). ISSN 1439-7358 (print), 2197-7100 (electronic). LCCN TK5 .S35 2001. URL http://link.springer.com/content/pdf/10.1007/978-3-642-56470-3_28. Selected contributions presented at the 3rd International Workshop on Scientific Computing in Electrical Engineering.

Nothnagel:2002:ADS

- [NPS02] K. Nothnagel, A. Paul, and G. Sachs. Adaptive data structures and algorithms for efficient visualization and data management at runtime of terrain and feature data. In Breuer

et al. [BDZ02], pages 297–304. CODEN LNCSA6. ISBN 3-540-42946-8 (print), 3-642-55919-0 (e-book). ISSN 1439-7358 (print), 2197-7100 (electronic). LCCN Q183.9 .I58 2001. URL http://link.springer.com/content/pdf/10.1007/978-3-642-55919-8_33.

Nettesheim:1999:SMT

- [NR99] Peter Nettesheim and Sebastian Reich. Symplectic multiple-time-stepping integrators for quantum-classical molecular dynamics. In Deuffhard et al. [DHL⁺99], pages 412–420. CODEN LNCSA6. ISBN 3-540-63242-5 (print), 3-642-58360-1 (e-book). ISSN 1439-7358 (print), 2197-7100 (electronic). LCCN QP517.M65 I56 1999. URL http://link.springer.com/chapter/10.1007/978-3-642-58360-5_23/.

Nakao:2002:NVM

- [NR02a] Mitsuhiro T. Nakao and Cheon Seoung Ryou. Numerical verification methods for solutions of free boundary problems. In Babuška et al. [BCM02], pages 195–208. CODEN LNCSA6. ISBN 3-540-42399-0 (print), 3-642-56288-4 (e-book). ISSN 1439-7358 (print), 2197-7100 (electronic). LCCN QA808.2 .I59 2000. URL http://link.springer.com/content/pdf/10.1007/978-3-642-56288-4_14.

Nugrahani:2002:SWP

- [NR02b] Ender H. Nugrahani and Sergej Rjasanow. On the stochastic weighted particle method. In Griebel and Schweitzer [GS02b], pages 319–326. CODEN LNCSA6. ISBN 3-540-43891-2 (print), 3-642-56103-9 (e-book). ISSN 1439-7358 (print), 2197-7100 (electronic). LCCN QA377 .M45 2003. URL http://link.springer.com/content/pdf/10.1007/978-3-642-56103-0_22. Proceedings of a workshop on Meshfree Methods for Partial Differential Equations, Institut für Angewandte Mathematik, Rheinische Friedrich-Wilhelms Universität Bonn, September 11–14, 2001.

Naumann:2006:CAN

- [NR06] Uwe Naumann and Jan Riehme. Computing adjoints with the NAGWare Fortran 95 compiler. In Bücker et al. [BCH⁺06], pages 159–169. CODEN LNCSA6. ISBN 3-540-28403-6 (print), 3-540-28438-9 (e-book). ISSN 1439-7358 (print), 2197-7100 (electronic). LCCN QA304 .I58 2006. URL http://link.springer.com/content/pdf/10.1007/978-3-642-56103-0_22.

1007/3-540-28438-9_14. Proceedings of the Fourth International Conference on Automatic Differentiation, July 20–23, Chicago, Illinois.

Nataf:2007:CND

- [NR07] Frédéric Nataf and Gerd Rapin. Construction of a new domain decomposition method for the Stokes equations. In Widlund and Keyes [WK07], pages 247–254. CODEN LNCSA6. ISBN 3-540-34468-3 (print), 3-540-34469-1 (e-book). ISSN 1439-7358 (print), 2197-7100 (electronic). LCCN QA402.2 .I55 2005. URL http://link.springer.com/content/pdf/10.1007/978-3-540-34469-8_27. Proceedings of the *Sixteenth International Conference on Domain Decomposition Methods*, New York City, January 11–15, 2005.

Neittaanmaki:2014:TSG

- [NR14a] Pekka Neittaanmäki and Sergey Repin. Two-sided guaranteed estimates of the cost functional for optimal control problems with elliptic state equations. In Hoppe [Hop14], pages 325–342. ISBN 3-319-08024-5 (paperback), 3-319-08025-3 (e-book). ISSN 1439-7358 (print), 2197-7100 (electronic). LCCN QA71-90; QA377. URL http://link.springer.com/chapter/10.1007/978-3-319-08025-3_10/.

Novak:2014:CEM

- [NR14b] Erich Novak and Daniel Rudolf. Computation of expectations by Markov chain Monte Carlo methods. In Dahlke et al. [DDG⁺14], pages 397–411. ISBN 3-319-08159-4. LCCN ???? URL http://link.springer.com/chapter/10.1007/978-3-319-08159-5_20/.

Nagaiiah:2008:PNS

- [NRWF08] Chamakuri Nagaiiah, Sten Rüdiger, Gerald Warnecke, and Martin Falcke. Parallel numerical solution of intracellular calcium dynamics. In Langer et al. [LDK⁺08], pages 607–614. CODEN LNCSA6. ISBN 3-540-75198-X (print), 3-540-75199-8 (e-book). ISSN 1439-7358 (print), 2197-7100 (electronic). LCCN QA402.2 .I55 2006. URL http://link.springer.com/content/pdf/10.1007/978-3-540-75199-1_76. 17th International Conference on Domain Decomposition Methods held at St. Wolfgang/Strobl, Austria, July 3–7, 2006.

Nettesheim:1999:NIQ

- [NS99] Peter Nettesheim and Christof Schütte. Numerical integrators for quantum-classical molecular dynamics. In Deuffhard et al. [DHL⁺99], pages 396–411. CODEN LNCSA6. ISBN 3-540-63242-5 (print), 3-642-58360-1 (e-book). ISSN 1439-7358 (print), 2197-7100 (electronic). LCCN QP517.M65 I56 1999. URL http://link.springer.com/chapter/10.1007/978-3-642-58360-5_22/.

Neubert:2001:EAO

- [NS01] R. Neubert and A. Schwarz. Efficient analysis of oscillatory circuits. In van Rienen et al. [vRGH01], pages 225–232. CODEN LNCSA6. ISBN 3-540-42173-4 (softcover), 3-642-56470-4 (e-book). ISSN 1439-7358 (print), 2197-7100 (electronic). LCCN TK5 .S35 2001. URL http://link.springer.com/content/pdf/10.1007/978-3-642-56470-3_22. Selected contributions presented at the 3rd International Workshop on Scientific Computing in Electrical Engineering.

Nishida:2002:VOM

- [NS02] H. Nishida and N. Satofuka. A variable order method of lines: Accuracy, conservation and applications. In Breuer et al. [BDZ02], pages 167–174. CODEN LNCSA6. ISBN 3-540-42946-8 (print), 3-642-55919-0 (e-book). ISSN 1439-7358 (print), 2197-7100 (electronic). LCCN Q183.9 .I58 2001. URL http://link.springer.com/content/pdf/10.1007/978-3-642-55919-8_19.

Neyland:2009:TFE

- [NSS09] V. Ya. Neyland, L. A. Sokolov, and V. V. Shvedchenko. Temperature factor effect on separated flow features in supersonic gas flow. In Hegarty et al. [HKOS09], pages 39–54. CODEN LNCSA6. ISBN 3-642-00604-3 (print), 3-642-00605-1 (e-book). ISSN 1439-7358 (print), 2197-7100 (electronic). LCCN ???? URL http://link.springer.com/content/pdf/10.1007/978-3-642-00605-0_3.

Nikbakht:2012:MED

- [NW12] Mehdi Nikbakht and Garth N. Wells. Modeling evolving discontinuities. In Logg et al. [LMW12a], pages 571–583. CODEN LNCSA6. ISBN 3-642-23098-9 (print), 3-642-23099-7 (e-book). ISSN 1439-7358 (print), 2197-7100 (electronic). LCCN

???? URL http://link.springer.com/content/pdf/10.1007/978-3-642-23099-8_30. The software developed by the FEniCS Project is free for all to use and modify (licensed under the GNU (L)GPL), and so is this book.

Noguchi:2008:ITM

- [NZ08] Hirohisa Noguchi and Zhiqian Zhang. Interface tracking in meshfree methods and its applications. In Griebel and Schweitzer [GS08d], pages 173–188. CODEN LNCSA6. ISBN 3-540-79993-1 (print), 3-540-79994-X (e-book). ISSN 1439-7358 (print), 2197-7100 (electronic). LCCN ???? URL http://link.springer.com/content/pdf/10.1007/978-3-540-79994-8_11. Fourth International Workshop on Meshfree Methods for Partial Differential Equations held from September 17 to September 20, 2007 in Bonn, Germany.

Oden:2000:CDC

- [OB00] J. Tinsley Oden and Carlos Erik Baumann. A conservative DGM for convection-diffusion and Navier–Stokes problems. In Cockburn et al. [CKS00b], pages 179–196. CODEN LNCSA6. ISBN 3-540-66787-3, 3-642-64098-2 (print), 3-642-59721-1 (e-book). ISSN 1439-7358 (print), 2197-7100 (electronic). LCCN TA347.F5 D57 2000. URL http://link.springer.com/chapter/10.1007/978-3-642-59721-3_13/. Papers from the first international symposium on DGM Newport, Rhode Island, USA, May 24–26, 1999.

Ozyurt:2006:ATA

- [ÖB06] Derya B. Özyurt and Paul I. Barton. Application of targeted automatic differentiation to large-scale dynamic optimization. In Bücker et al. [BCH⁺06], pages 235–247. CODEN LNCSA6. ISBN 3-540-28403-6 (print), 3-540-28438-9 (e-book). ISSN 1439-7358 (print), 2197-7100 (electronic). LCCN QA304 .I58 2006. URL http://link.springer.com/content/pdf/10.1007/3-540-28438-9_21. Proceedings of the Fourth International Conference on Automatic Differentiation, July 20–23, Chicago, Illinois.

O’Shea:2005:IEA

- [OBB⁺05] Brian W. O’Shea, Greg Bryan, James Bordner, Michael L. Norman, and Tom Abel. Introducing Enzo, an AMR cosmology application. In Plewa et al. [PLW05], pages 341–349.

CODEN LNCSA6. ISBN 3-540-21147-0 (print), 3-540-27039-6 (e-book). ISSN 1439-7358 (print), 2197-7100 (electronic). LCCN QA377 .C46 2003. URL http://link.springer.com/content/pdf/10.1007/3-540-27039-6_24.

Dynamics:2003:PDN

- [oCPiPDSKN03] Reinhard Mahnke Cellular Automata Simulation of Collective Phenomena in Pedestrian Dynamics, Andreas Schadschneider, Ansgar Kirchner, and Katsuhiko Nishinari. Probabilistic description of nucleation in vapours and on roads. In Emerich et al. [ENS03], page ?? CODEN LNCSA6. ISBN 3-540-40367-1. ISSN 1439-7358 (print), 2197-7100 (electronic). LCCN QC173.4.I57 I57 2003. URL <http://www.loc.gov/catdir/enhancements/fy0818/2003060231-d.html>. Papers from the workshop on “Computational Physics of Transport and Interfacial Dynamics”, Dresden, February 25–March 8, 2002.

Ohrn:2009:TSM

- [ÖD09a] Yngve Öhrn and Erik Deumens. Time scales in molecular reaction dynamics. In Engquist et al. [ELR09], pages 311–316. CODEN LNCSA6. ISBN 3-540-88856-X (paperback), 3-540-88857-8 (e-book). ISSN 1439-7358 (print), 2197-7100 (electronic). LCCN Q183.9 .M86 2009. URL http://link.springer.com/content/pdf/10.1007/978-3-540-88857-4_11. Summer School on Multiscale Modeling and Simulation in Science, Bosön, Lidingö outside Stockholm, Sweden, June 2007.

Ozyoruk:2009:PET

- [ÖD09b] Y. Özyörük and E. Dizemen. Performance evaluation of two parallel, direct sparse solvers for an aeroacoustic propagation model. In Tuncer et al. [TGEM09], pages 379–384. CODEN LNCSA6. ISBN 3-540-92743-3 (print), 3-540-92744-1 (e-book). ISSN 1439-7358 (print), 2197-7100 (electronic). LCCN ???? URL http://link.springer.com/content/pdf/10.1007/978-3-540-92744-0_47. Parallel CFD 2007 was held in Antalya, Turkey, from May 21 to 24, 2007.

Ovtchinnikov:2007:DDF

- [ODCK07] Serguei Ovtchinnikov, Florin Dobrian, Xiao-Chuan Cai, and David Keyes. Domain-decomposed fully coupled implicit methods for a magnetohydrodynamics problem. In Widlund

and Keyes [WK07], pages 333–340. CODEN LNCSA6. ISBN 3-540-34468-3 (print), 3-540-34469-1 (e-book). ISSN 1439-7358 (print), 2197-7100 (electronic). LCCN QA402.2 .I55 2005. URL http://link.springer.com/content/pdf/10.1007/978-3-540-34469-8_40. Proceedings of the *Sixteenth International Conference on Domain Decomposition Methods*, New York City, January 11–15, 2005.

Oian:2005:PSM

- [ØEGF05] Erlend Øian, Magne S. Espedal, I. Garrido, and G. E. Fladmark. Parallel simulation of Multiphase/ multicomponent flow models. In Kornhuber et al. [KHP⁺05], pages 99–113. CODEN LNCSA6. ISBN 3-540-22523-4 (print), 3-540-26825-1 (e-book). ISSN 1439-7358 (print), 2197-7100 (electronic). LCCN QA402.2 .I55 2003. URL http://link.springer.com/content/pdf/10.1007/3-540-26825-1_7. Papers from the 15th International Conference on Domain Decomposition, Freie Universität Berlin (FU), Berlin, Germany, July 21–25, 2003.

Of:2008:AFB

- [Of08] Günther Of. The all-floating BETI method: Numerical results. In Langer et al. [LDK⁺08], pages 295–302. CODEN LNCSA6. ISBN 3-540-75198-X (print), 3-540-75199-8 (e-book). ISSN 1439-7358 (print), 2197-7100 (electronic). LCCN QA402.2 .I55 2006. URL http://link.springer.com/content/pdf/10.1007/978-3-540-75199-1_34. 17th International Conference on Domain Decomposition Methods held at St. Wolfgang/Strobl, Austria, July 3–7, 2006.

Oosterlee:1998:FMS

- [OGWW98] C. W. Oosterlee, F. J. Gaspar, T. Washio, and R. Wienands. Fast multigrid solvers for higher order upwind discretizations of convection-dominated problems. In Hackbusch and Wittum [HW98], pages 212–224. CODEN LNCSA6. ISBN 3-540-63133-X (softcover), 3-642-58734-8 (e-book). ISSN 1439-7358 (print), 2197-7100 (electronic). LCCN QA377 .E94 1996. URL http://link.springer.com/chapter/10.1007/978-3-642-58734-4_12/.

Ohtsuka:2002:TNA

- [Oht02] Kohji Ohtsuka. Theoretical and numerical analysis on 3-dimensional brittle fracture. In Babuška et al. [BCM02],

pages 233–251. CODEN LNCSA6. ISBN 3-540-42399-0 (print), 3-642-56288-4 (e-book). ISSN 1439-7358 (print), 2197-7100 (electronic). LCCN QA808.2 .I59 2000. URL http://link.springer.com/content/pdf/10.1007/978-3-642-56288-4_17.

Olson:2007:DOS

- [OHW07] Luke N. Olson, Jan S. Hesthaven, and Lucas C. Wilcox. Developments in overlapping Schwarz preconditioning of high-order nodal discontinuous Galerkin discretizations. In Widlund and Keyes [WK07], pages 325–332. CODEN LNCSA6. ISBN 3-540-34468-3 (print), 3-540-34469-1 (e-book). ISSN 1439-7358 (print), 2197-7100 (electronic). LCCN QA402.2 .I55 2005. URL http://link.springer.com/content/pdf/10.1007/978-3-540-34469-8_39. Proceedings of the *Sixteenth International Conference on Domain Decomposition Methods*, New York City, January 11–15, 2005.

Okstad:2000:OOF

- [OK00] Knut Morten Okstad and Trond Kvamsdal. Object-oriented field recovery and error estimation in finite element methods. In Langtangen et al. [LBQ00], pages 283–317. CODEN LNCSA6. ISBN 3-540-66557-9 (softcover), 3-642-57172-7 (e-book). ISSN 1439-7358 (print), 2197-7100 (electronic). LCCN QA76.6 .A336 2000. URL http://link.springer.com/chapter/10.1007/978-3-642-57172-5_9/. Papers from an International Workshop on Modern Software Tools for Scientific Computing (SciTools'98), Oslo, Norway, September 14–16, 1998.

Ono:2011:MSM

- [OK11] Kenji Ono and Yasuhiro Kawashima. Multicolor SOR method with consecutive memory access implementation in a shared and distributed memory parallel environment. In Tromeur-Dervout et al. [TDBEE11], pages 183–191. CODEN LNCSA6. ISBN 3-642-14437-3 (print), 3-642-14438-1 (e-book). ISSN 1439-7358 (print), 2197-7100 (electronic). LCCN ???? URL http://link.springer.com/content/pdf/10.1007/978-3-642-14438-7_19. Proceedings of the twentieth meeting, Parallel CFD 2008, held May 19–22, 2008 in Lyon, France.

Okstad:2003:SAE

- [Oks03] K. M. Okstad. Simulation of aluminum extrusion. In Langtangen and Tveito [LT03], pages 577–609. CODEN LNCSA6. ISBN 3-540-01438-1 (print), 3-642-18237-2 (e-book). ISSN 1439-7358 (print), 2197-7100 (electronic). LCCN QA377 .A45 2003. URL http://link.springer.com/content/pdf/10.1007/978-3-642-18237-2_14.

Odegaard:2003:FIM

- [ØLT03] Å. Ødegård, H. P. Langtangen, and A. Tveito. Fully implicit methods for systems of PDEs. In Langtangen and Tveito [LT03], pages 237–256. CODEN LNCSA6. ISBN 3-540-01438-1 (print), 3-642-18237-2 (e-book). ISSN 1439-7358 (print), 2197-7100 (electronic). LCCN QA377 .A45 2003. URL http://link.springer.com/content/pdf/10.1007/978-3-642-18237-2_6.

Olver:2011:GOM

- [Olv11] Sheehan Olver. GMRES for oscillatory matrix-valued differential equations. In Hesthaven and Rønquist [HR11], pages 267–274. CODEN LNCSA6. ISBN 3-642-15336-4 (print), 3-642-15337-2 (e-book). ISSN 1439-7358 (print), 2197-7100 (electronic). LCCN ???? URL http://link.springer.com/content/pdf/10.1007/978-3-642-15337-2_24.

Okunbor:1999:PMD

- [OM99] Daniel Okunbor and Ravi Murty. Parallel molecular dynamics using force decomposition. In Deuffhard et al. [DHL⁺99], pages 483–494. CODEN LNCSA6. ISBN 3-540-63242-5 (print), 3-642-58360-1 (e-book). ISSN 1439-7358 (print), 2197-7100 (electronic). LCCN QP517.M65 I56 1999. URL http://link.springer.com/chapter/10.1007/978-3-642-58360-5_29/.

Olson:2005:OPA

- [OM05] Kevin M. Olson and Peter MacNeice. An overview of the PARAMESH AMR software package and some of its applications. In Plewa et al. [PLW05], pages 315–330. CODEN LNCSA6. ISBN 3-540-21147-0 (print), 3-540-27039-6 (e-book). ISSN 1439-7358 (print), 2197-7100 (electronic). LCCN QA377 .C46 2003. URL http://link.springer.com/content/pdf/10.1007/3-540-27039-6_22.

Orkisz:2008:AEE

- [OM08] Janusz Orkisz and Slawomir Milewski. A posteriori error estimation based on higher order approximation in the meshless finite difference method. In Griebel and Schweitzer [GS08d], pages 189–213. CODEN LNCSA6. ISBN 3-540-79993-1 (print), 3-540-79994-X (e-book). ISSN 1439-7358 (print), 2197-7100 (electronic). LCCN ????. URL http://link.springer.com/content/pdf/10.1007/978-3-540-79994-8_12. Fourth International Workshop on Meshfree Methods for Partial Differential Equations held from September 17 to September 20, 2007 in Bonn, Germany.

Oktay:2009:APC

- [OMA09] E. Oktay, O. Merttopcuoglu, and H. U. Akay. An approach for parallel CFD solutions of store separation problems. In Tuncer et al. [TGEM09], pages 393–400. CODEN LNCSA6. ISBN 3-540-92743-3 (print), 3-540-92744-1 (e-book). ISSN 1439-7358 (print), 2197-7100 (electronic). LCCN ????. URL http://link.springer.com/content/pdf/10.1007/978-3-540-92744-0_49. Parallel CFD 2007 was held in Antalya, Turkey, from May 21 to 24, 2007.

Oktay:2011:PSO

- [OMS⁺11a] Erdal Oktay, Osman Merttopcuoglu, Cevat Sener, Ahmet Ketenci, and Hasan U. Akay. Parallel shape optimization of a missile on a grid infrastructure. In Tromeur-Dervout et al. [TDBEE11], pages 51–59. CODEN LNCSA6. ISBN 3-642-14437-3 (print), 3-642-14438-1 (e-book). ISSN 1439-7358 (print), 2197-7100 (electronic). LCCN ????. URL http://link.springer.com/content/pdf/10.1007/978-3-642-14438-7_5. Proceedings of the twentieth meeting, Parallel CFD 2008, held May 19–22, 2008 in Lyon, France.

Ortleb:2011:ASF

- [OMS11b] S. Ortleb, A. Meister, and Th. Sonar. Adaptive spectral filtering and digital total variation postprocessing for the DG method on triangular grids: Application to the Euler equations. In Hesthaven and Rønquist [HR11], pages 469–477. CODEN LNCSA6. ISBN 3-642-15336-4 (print), 3-642-15337-2 (e-book). ISSN 1439-7358 (print), 2197-7100 (electronic). LCCN ????. URL http://link.springer.com/content/pdf/10.1007/978-3-642-15337-2_45.

OReilly:2014:PWA

- [OMSA14] Eoin P. O'Reilly, Oliver Marquardt, Stefan Schulz, and Aleksey D. Andreev. Plane-wave approaches to the electronic structure of semiconductor nanostructures. In Ehrhardt and Koprucki [EK14], pages 155–189. ISBN 3-319-01426-9, 3-319-01427-7 (e-book). ISSN 1439-7358 (print), 2197-7100 (electronic). LCCN QA71-90; QA300. URL http://link.springer.com/chapter/10.1007/978-3-319-01427-2_5/.

Ozkaya:2012:AAD

- [ÖNG12] Emre Özkaya, Anil Nemili, and Nicolas R. Gauger. Application of automatic differentiation to an incompressible URANS solver. In Forth et al. [FHP⁺12], pages 35–45. CODEN LNCSA6. ISBN 3-642-30022-7 (print), 3-642-30023-5 (e-book). ISSN 1439-7358 (print), 2197-7100 (electronic). LCCN ????. URL http://link.springer.com/content/pdf/10.1007/978-3-642-30023-3_4. Proceedings of the Sixth International Conference on Automatic Differentiation (AD2012) held July 23–27, 2012, in Fort Collins, Colorado, USA.

ORiordan:2011:NMN

- [OQ11] E. O’Riordan and J. Quinn. Numerical method for a nonlinear singularly perturbed interior layer problem. In Clavero et al. [CGL11], pages 187–195. CODEN LNCSA6. ISBN 3-642-19664-0 (print), 3-642-19665-9 (e-book). ISSN 1439-7358 (print), 2197-7100 (electronic). LCCN ????. URL http://link.springer.com/content/pdf/10.1007/978-3-642-19665-2_20. Selected papers from the proceedings of BAIL 2010 (Boundary and Interior Layers — Computational and Asymptotic Methods), held from 5 to 9 July 2010 at the University of Zaragoza, Spain.

Olsen:2012:EAD

- [OR12] Peder A. Olsen and Steven J. Rennie. Efficient automatic differentiation of matrix functions. In Forth et al. [FHP⁺12], pages 71–81. CODEN LNCSA6. ISBN 3-642-30022-7 (print), 3-642-30023-5 (e-book). ISSN 1439-7358 (print), 2197-7100 (electronic). LCCN ????. URL http://link.springer.com/content/pdf/10.1007/978-3-642-30023-3_7. Proceedings of the Sixth International Conference on Automatic Differentiation (AD2012) held July 23–27, 2012, in Fort Collins, Colorado, USA.

Of:2011:CFF

- [OS11] Günther Of and Olaf Steinbach. Coupled FE/ BE formulations for the fluid-structure interaction. In Huang et al. [HKWX11], pages 293–300. CODEN LNCSA6. ISBN 3-642-11303-6 (print), 3-642-11304-4 (e-book). ISSN 1439-7358 (print), 2197-7100 (electronic). LCCN QA402.2 .I58 2011. URL http://link.springer.com/content/pdf/10.1007/978-3-642-11304-8_33. Papers presented at the 19th International Conference on Domain Decomposition, DD19, hosted by the School of Mathematics and Computational Science of the Xiangtan University and the Hunan Key Laboratory for Computation and Simulation in Science and Engineering and held in Zhanjiajie, China, August 17–22, 2009.

Ohlsson:2011:SSE

- [OSF11] J. Ohlsson, P. Schlatter, and P. F. Fischer. Stabilization of the spectral-element method in turbulent flow simulations. In Hesthaven and Rønquist [HR11], pages 449–458. CODEN LNCSA6. ISBN 3-642-15336-4 (print), 3-642-15337-2 (e-book). ISSN 1439-7358 (print), 2197-7100 (electronic). LCCN ????? URL http://link.springer.com/content/pdf/10.1007/978-3-642-15337-2_43.

Ohlsson:2011:SEP

- [OSM11] J. Ohlsson, P. Schlatter, and C. Mavriplis. The spectral-element and pseudo-spectral methods: a comparative study. In Hesthaven and Rønquist [HR11], pages 459–467. CODEN LNCSA6. ISBN 3-642-15336-4 (print), 3-642-15337-2 (e-book). ISSN 1439-7358 (print), 2197-7100 (electronic). LCCN ????? URL http://link.springer.com/content/pdf/10.1007/978-3-642-15337-2_44.

Ono:2009:DFP

- [OT09] Kenji Ono and Tsuyoshi Tamaki. Development of a framework for parallel simulators with various physics and its performance. In Tuncer et al. [TGEM09], pages 9–18. CODEN LNCSA6. ISBN 3-540-92743-3 (print), 3-540-92744-1 (e-book). ISSN 1439-7358 (print), 2197-7100 (electronic). LCCN ????? URL http://link.springer.com/content/pdf/10.1007/978-3-540-92744-0_2. Parallel CFD 2007 was held in Antalya, Turkey, from May 21 to 24, 2007.

Oosterlee:2010:SLP

- [OVM10] C. W. Oosterlee, C. Vuik, and W. A. Mulder. Shifted-Laplacian preconditioners for heterogeneous Helmholtz problems. In Koren and Vuik [KV10], pages 21–46. CODEN LNCSA6. ISBN 3-642-03343-1 (print), 3-642-03344-X (e-book). ISSN 1439-7358 (print), 2197-7100 (electronic). LCCN Q183.9 .A35 2010. URL http://link.springer.com/content/pdf/10.1007/978-3-642-03344-5_2.

Olgaard:2012:ASM

- [ØW12a] Kristian B. Ølgaard and Garth N. Wells. Applications in solid mechanics. In Logg et al. [LMW12a], pages 505–524. CODEN LNCSA6. ISBN 3-642-23098-9 (print), 3-642-23099-7 (e-book). ISSN 1439-7358 (print), 2197-7100 (electronic). LCCN ????? URL http://link.springer.com/content/pdf/10.1007/978-3-642-23099-8_26. The software developed by the FEniCS Project is free for all to use and modify (licensed under the GNU (L)GPL), and so is this book.

Olgaard:2012:QRF

- [ØW12b] Kristian B. Ølgaard and Garth N. Wells. Quadrature representation of finite element variational forms. In Logg et al. [LMW12a], pages 147–158. CODEN LNCSA6. ISBN 3-642-23098-9 (print), 3-642-23099-7 (e-book). ISSN 1439-7358 (print), 2197-7100 (electronic). LCCN ????? URL http://link.springer.com/content/pdf/10.1007/978-3-642-23099-8_7. The software developed by the FEniCS Project is free for all to use and modify (licensed under the GNU (L)GPL), and so is this book.

Oosterlee:2000:AMC

- [OWWG00] C. W. Oosterlee, R. Wienands, T. Washio, and F. J. Gaspar. The acceleration of multigrid convergence by recombination techniques. In Dick et al. [DRV00], pages 34–43. CODEN LNCSA6. ISBN 3-540-67157-9 (print), 3-642-58312-1 (e-book). ISSN 1439-7358 (print), 2197-7100 (electronic). LCCN QA377 .E94 1999. URL http://link.springer.com/chapter/10.1007/978-3-642-58312-4_4/.

Plebe:2001:SMB

- [PAR01] A. Plebe, A. M. Anile, and S. Rinaudo. Sub-micrometer bipolar transistor modeling using neural networks. In van

Rienen et al. [vRGH01], pages 259–266. CODEN LNCSA6. ISBN 3-540-42173-4 (softcover), 3-642-56470-4 (e-book). ISSN 1439-7358 (print), 2197-7100 (electronic). LCCN TK5 .S35 2001. URL http://link.springer.com/content/pdf/10.1007/978-3-642-56470-3_26. Selected contributions presented at the 3rd International Workshop on Scientific Computing in Electrical Engineering.

Pailthorpe:2000:SVG

- [PB00] Bernard A. Pailthorpe and Nicole Bordes. Scalable visualization of galaxies, oceans, and brains. In Engquist et al. [EJHS00], pages 122–134. CODEN LNCSA6. ISBN 3-540-67264-8 (print), 3-642-57313-4 (e-book). ISSN 1439-7358 (print), 2197-7100 (electronic). LCCN QA76.9.C65 S535 2000. URL http://link.springer.com/chapter/10.1007/978-3-642-57313-2_14/.

Prudhomme:2012:AAO

- [PB12] Serge Prudhomme and Robin Bouclier. Analysis of an averaging operator for atomic-to-continuum coupling methods by the Arlequin approach. In Engquist et al. [ERT12], pages 369–400. CODEN LNCSA6. ISBN 3-642-21942-X (print), 3-642-21943-8 (e-book). ISSN 1439-7358 (print), 2197-7100 (electronic). LCCN ???? URL http://link.springer.com/content/pdf/10.1007/978-3-642-21943-6_15.

Pena:2008:TPM

- [PBF08] Marian Pena, Wesam Barbakh, and Colin Fyfe. Topology-preserving mappings for data visualisation. In Gorban et al. [GKWZ08], pages 131–150. CODEN LNCSA6. ISBN 3-540-73749-9 (print), 3-540-73750-2 (e-book). ISSN 1439-7358 (print), 2197-7100 (electronic). LCCN QA278.5 .P75 2008. URL http://link.springer.com/content/pdf/10.1007/978-3-540-73750-6_5.

Phipps:2008:LST

- [PBG08] Eric T. Phipps, Roscoe A. Bartlett, and David M. Gay. Large-scale transient sensitivity analysis of a radiation-damaged bipolar junction transistor via automatic differentiation. In Bischof et al. [BBH⁺08], pages 351–362. CODEN LNCSA6. ISBN 3-540-68935-4 (print), 3-540-68942-7 (e-book). ISSN 1439-7358 (print), 2197-7100 (electronic). LCCN QA304 .I58 2008. URL http://link.springer.com/content/pdf/10.1007/978-3-540-68942-3_31.

Phillips:1999:AAO

- [PBS⁺99] James C. Phillips, Robert Brunner, Aritomo Shinozaki, Milind Bhandarkar, and Neal Krawetz. Avoiding algorithmic obfuscation in a message-driven parallel MD code. In Deuffhard et al. [DHL⁺99], pages 472–482. CODEN LNCSA6. ISBN 3-540-63242-5 (print), 3-642-58360-1 (e-book). ISSN 1439-7358 (print), 2197-7100 (electronic). LCCN QP517.M65 I56 1999. URL http://link.springer.com/chapter/10.1007/978-3-642-58360-5_28/.

Phipps:2006:POH

- [PC06] Eric Phipps and Richard Casey. Periodic orbits of hybrid systems and parameter estimation via AD. In Bücker et al. [BCH⁺06], pages 211–223. CODEN LNCSA6. ISBN 3-540-28403-6 (print), 3-540-28438-9 (e-book). ISSN 1439-7358 (print), 2197-7100 (electronic). LCCN QA304 .I58 2006. URL http://link.springer.com/content/pdf/10.1007/3-540-28438-9_19. Proceedings of the Fourth International Conference on Automatic Differentiation, July 20–23, Chicago, Illinois.

Prudencio:2007:RMR

- [PC07] Ernesto E. Prudencio and Xiao-Chuan Cai. Robust multilevel restricted Schwarz preconditioners and applications. In Widlund and Keyes [WK07], pages 155–162. CODEN LNCSA6. ISBN 3-540-34468-3 (print), 3-540-34469-1 (e-book). ISSN 1439-7358 (print), 2197-7100 (electronic). LCCN QA402.2 .I55 2005. URL http://link.springer.com/content/pdf/10.1007/978-3-540-34469-8_14. Proceedings of the *Sixteenth International Conference on Domain Decomposition Methods*, New York City, January 11–15, 2005.

Penski:1999:NSI

- [PD99] Chr. Penski and G. Denk. A new stochastic integration scheme for the efficient solution of randomly disturbed circuits. In Bungartz et al. [BDZ99], pages 353–361. CODEN LNCSA6. ISBN 3-540-65730-4 (print), 3-642-60155-3 (e-book). ISSN 1439-7358 (print), 2197-7100 (electronic). LCCN Q183.9.I58 1998. URL http://link.springer.com/chapter/10.1007/978-3-642-60155-2_29/.

Petcu:2000:DOS

- [PD00] Dana Petcu and Mircea Dragan. Designing an ODE solving environment. In Langtangen et al. [LBQ00], pages 319–338. CODEN LNCSA6. ISBN 3-540-66557-9 (softcover), 3-642-57172-7 (e-book). ISSN 1439-7358 (print), 2197-7100 (electronic). LCCN QA76.6 .A336 2000. URL http://link.springer.com/chapter/10.1007/978-3-642-57172-5_10/. Papers from an International Workshop on Modern Software Tools for Scientific Computing (SciTools'98), Oslo, Norway, September 14–16, 1998.

Popescu:2003:SLM

- [PD03] M. N. Popescu and S. Dietrich. Spreading of liquid monolayers: From kinetic Monte Carlo simulations to continuum limit. In Emmerich et al. [ENS03], page ?? CODEN LNCSA6. ISBN 3-540-40367-1. ISSN 1439-7358 (print), 2197-7100 (electronic). LCCN QC173.4.I57 I57 2003. URL <http://www.loc.gov/catdir/enhancements/fy0818/2003060231-d.html>. Papers from the workshop on “Computational Physics of Transport and Interfacial Dynamics”, Dresden, February 25–March 8, 2002.

Peng:2011:SQD

- [PD11] Wujian Peng and Biswa N. Datta. A sparse QS-decomposition for large sparse linear system of equations. In Huang et al. [HKWX11], pages 431–438. CODEN LNCSA6. ISBN 3-642-11303-6 (print), 3-642-11304-4 (e-book). ISSN 1439-7358 (print), 2197-7100 (electronic). LCCN QA402.2 .I58 2011. URL http://link.springer.com/content/pdf/10.1007/978-3-642-11304-8_50. Papers presented at the 19th International Conference on Domain Decomposition, DD19, hosted by the School of Mathematics and Computational Science of the Xiangtan University and the Hunan Key Laboratory for Computation and Simulation in Science and Engineering and held in Zhanjiajie, China, August 17–22, 2009.

Polonsky:2006:PTC

- [PDB06] Igor N. Polonsky, Anthony B. Davis, and Michael A. Box. Perturbation technique in 3D cloud optics: Theory and results. In Graziani [Gra06], pages 165–171. CODEN LNCSA6. ISBN 3-540-28122-3 (print), 3-540-28125-8 (e-book). ISSN 1439-7358 (print), 2197-7100 (electronic). LCCN MLCM 2006/40189

(Q); QC793.3.T7 C66 2006. URL http://link.springer.com/content/pdf/10.1007/3-540-28125-8_8.

Pacio:2011:SAH

- [PDF11] J. C. Pacio, C. A. Dorao, and M. Fernandino. Sensitivity analysis of heat exchangers using perturbative methods. In Hesthaven and Rønquist [HR11], pages 275–282. CODEN LNCSA6. ISBN 3-642-15336-4 (print), 3-642-15337-2 (e-book). ISSN 1439-7358 (print), 2197-7100 (electronic). LCCN ????. URL http://link.springer.com/content/pdf/10.1007/978-3-642-15337-2_25.

Pantano:2007:LND

- [PDH07] C. Pantano, R. Deiterding, and D. J. Hill. A low-numerical dissipation, patch-based adaptive-mesh-refinement method for large-eddy simulation of compressible flows. In Kassinos et al. [KLIM07], pages 251–262. CODEN LNCSA6. ISBN 3-540-34233-8 (print), 3-540-34234-6 (e-book). ISSN 1439-7358 (print), 2197-7100 (electronic). LCCN TA357.5.T87 C66 2007. URL http://link.springer.com/content/pdf/10.1007/978-3-540-34234-2_18. Proceedings of the symposium on *Complex Effects in Large Eddy Simulation* held in Lemesos (Limassol), Cyprus, September 21–24, 2005.

Pares:2008:EBL

- [PDH08] Núria Parés, Pedro Díez, and Antonio Huerta. Exact bounds for linear outputs of the convection-diffusion-reaction equation using flux-free error estimates. In Griebel and Schweitzer [GS08d], pages 215–230. CODEN LNCSA6. ISBN 3-540-79993-1 (print), 3-540-79994-X (e-book). ISSN 1439-7358 (print), 2197-7100 (electronic). LCCN ????. URL http://link.springer.com/content/pdf/10.1007/978-3-540-79994-8_13. Fourth International Workshop on Meshfree Methods for Partial Differential Equations held from September 17 to September 20, 2007 in Bonn, Germany.

Poette:2011:UPS

- [PDL11] G. Poëtte, B. Després, and D. Lucor. Uncertainty propagation for systems of conservation laws, high order stochastic spectral methods. In Hesthaven and Rønquist [HR11], pages 293–305. CODEN LNCSA6. ISBN 3-642-15336-4 (print), 3-642-15337-2 (e-book). ISSN 1439-7358 (print), 2197-7100

(electronic). LCCN ???? URL http://link.springer.com/content/pdf/10.1007/978-3-642-15337-2_27.

Powell:2005:PAM

- [PDS⁺05] Kenneth G. Powell, Darren L. De Zeeuw, Igor V. Sokolov, Gábor Tóth, and Tamas I. Gombosi. Parallel, AMR MHD for global space weather simulations. In Plewa et al. [PLW05], pages 473–490. CODEN LNCSA6. ISBN 3-540-21147-0 (print), 3-540-27039-6 (e-book). ISSN 1439-7358 (print), 2197-7100 (electronic). LCCN QA377 .C46 2003. URL http://link.springer.com/content/pdf/10.1007/3-540-27039-6_36.

Peigin:2009:EPA

- [PE09] S. Peigin and B. Epstein. Efficient Parallel Algorithm for multiconstrained of wing body configurations. In Tuncer et al. [TGEM09], pages 83–90. CODEN LNCSA6. ISBN 3-540-92743-3 (print), 3-540-92744-1 (e-book). ISSN 1439-7358 (print), 2197-7100 (electronic). LCCN ???? URL http://link.springer.com/content/pdf/10.1007/978-3-540-92744-0_10. Parallel CFD 2007 was held in Antalya, Turkey, from May 21 to 24, 2007.

Peardon:2005:MCS

- [Pea05] Mike Peardon. Monte Carlo simulations of lattice QCD. In Boriçi et al. [BFJ⁺05], pages 41–54. CODEN LNCSA6. ISBN 3-540-21257-4 (print), 3-540-28504-0 (e-book). ISSN 1439-7358 (print), 2197-7100 (electronic). LCCN QC793.3.Q35 I56 2003. URL http://link.springer.com/content/pdf/10.1007/3-540-28504-0_4.

Pechstein:2013:DPM

- [Pec13a] Clemens Pechstein. Dual-primal methods. In *Finite and Boundary Element Tearing and Interconnecting Solvers for Multiscale Problems* [Pec13b], pages 247–281. CODEN LNCSA6. ISBN 3-642-23587-5 (hardcover), 3-642-23588-3 (e-book). ISSN 1439-7358 (print), 2197-7100 (electronic). LCCN TA342 .P43 2013. URL http://link.springer.com/content/pdf/10.1007/978-3-642-23588-7_5.

Pechstein:2013:FBE

- [Pec13b] Clemens Pechstein, editor. *Finite and Boundary Element Tearing and Interconnecting Solvers for Multiscale Prob-*

lems, volume 90 of *Lecture Notes in Computational Science and Engineering*. Springer-Verlag Inc., New York, NY, USA, 2013. CODEN LNCSA6. ISBN 3-642-23587-5 (hardcover), 3-642-23588-3 (e-book). ISSN 1439-7358 (print), 2197-7100 (electronic). xiv + 311 (est.) pp. LCCN TA342 .P43 2013. URL <http://link.springer.com/book/10.1007/978-3-642-23588-7>; <http://www.springerlink.com/content/978-3-642-23588-7>.

Pechstein:2013:FM

- [Pec13c] Clemens Pechstein. Front matter. In *Finite and Boundary Element Tearing and Interconnecting Solvers for Multiscale Problems* [Pec13b], pages i–xiv. CODEN LNCSA6. ISBN 3-642-23587-5 (hardcover), 3-642-23588-3 (e-book). ISSN 1439-7358 (print), 2197-7100 (electronic). LCCN TA342 .P43 2013. URL <http://link.springer.com/content/pdf/bfm:978-3-642-23588-7/1>.

Pechstein:2013:MP

- [Pec13d] Clemens Pechstein. Multiscale problems. In *Finite and Boundary Element Tearing and Interconnecting Solvers for Multiscale Problems* [Pec13b], pages 157–213. CODEN LNCSA6. ISBN 3-642-23587-5 (hardcover), 3-642-23588-3 (e-book). ISSN 1439-7358 (print), 2197-7100 (electronic). LCCN TA342 .P43 2013. URL http://link.springer.com/content/pdf/10.1007/978-3-642-23588-7_3.

Pechstein:2013:OLF

- [Pec13e] Clemens Pechstein. One-level FETI/ BETI methods. In *Finite and Boundary Element Tearing and Interconnecting Solvers for Multiscale Problems* [Pec13b], pages 63–155. CODEN LNCSA6. ISBN 3-642-23587-5 (hardcover), 3-642-23588-3 (e-book). ISSN 1439-7358 (print), 2197-7100 (electronic). LCCN TA342 .P43 2013. URL http://link.springer.com/content/pdf/10.1007/978-3-642-23588-7_2.

Pechstein:2013:P

- [Pec13f] Clemens Pechstein. Preliminaries. In *Finite and Boundary Element Tearing and Interconnecting Solvers for Multiscale Problems* [Pec13b], pages 1–61. CODEN LNCSA6. ISBN 3-642-23587-5 (hardcover), 3-642-23588-3 (e-book). ISSN 1439-7358 (print), 2197-7100 (electronic). LCCN TA342 .P43 2013. URL http://link.springer.com/content/pdf/10.1007/978-3-642-23588-7_1.

Pechstein:2013:UD

- [Pec13g] Clemens Pechstein. Unbounded domains. In *Finite and Boundary Element Tearing and Interconnecting Solvers for Multiscale Problems* [Pec13b], pages 215–246. CODEN LNCSA6. ISBN 3-642-23587-5 (hardcover), 3-642-23588-3 (e-book). ISSN 1439-7358 (print), 2197-7100 (electronic). LCCN TA342 .P43 2013. URL http://link.springer.com/content/pdf/10.1007/978-3-642-23588-7_4.

Pechstein:2014:ISM

- [Pec14] Clemens Pechstein. On iterative substructuring methods for multiscale problems. In Erhel et al. [EGH⁺14], pages 85–98. ISBN 3-319-05788-X (paperback), 3-319-05789-8 (e-book). ISSN 1439-7358 (print), 2197-7100 (electronic). LCCN QA71-90. URL http://link.springer.com/chapter/10.1007/978-3-319-05789-7_7/.

Peigin:2011:PIF

- [PEG11] S. Peigin, B. Epstein, and S. Gali. Parallel implementation of fictitious surfaces method for aerodynamic shape optimization. In Tromeur-Dervout et al. [TDBEE11], pages 71–81. CODEN LNCSA6. ISBN 3-642-14437-3 (print), 3-642-14438-1 (e-book). ISSN 1439-7358 (print), 2197-7100 (electronic). LCCN ????. URL http://link.springer.com/content/pdf/10.1007/978-3-642-14438-7_7. Proceedings of the twentieth meeting, Parallel CFD 2008, held May 19–22, 2008 in Lyon, France.

Pekala:2003:ETN

- [Pek03] K. Pekala. Electron transport of nanoperm alloys. In Emmerich et al. [ENS03], page ?? CODEN LNCSA6. ISBN 3-540-40367-1. ISSN 1439-7358 (print), 2197-7100 (electronic). LCCN QC173.4.I57 I57 2003. URL <http://www.loc.gov/catdir/enhancements/fy0818/2003060231-d.html>. Papers from the workshop on “Computational Physics of Transport and Interfacial Dynamics”, Dresden, February 25–March 8, 2002.

Perthame:1999:IKS

- [Per99] Benoit Perthame. An introduction to Kinetic schemes for gas dynamics. In Kröner et al. [KOR99], pages 1–27. CODEN LNCSA6. ISBN 3-540-65081-4 (print), 3-642-58535-3 (e-book). ISSN 1439-7358 (print), 2197-7100 (electronic).

LCCN QA901.I525 1997. URL http://link.springer.com/chapter/10.1007/978-3-642-58535-7_1/.

Perrier:2011:NSC

- [Per11] Vincent Perrier. A numerical scheme for the computation of phase transition in compressible multiphase flows. In Tromeur-Dervout et al. [TDBEE11], pages 235–243. CODEN LNCSA6. ISBN 3-642-14437-3 (print), 3-642-14438-1 (e-book). ISSN 1439-7358 (print), 2197-7100 (electronic). LCCN ????. URL http://link.springer.com/content/pdf/10.1007/978-3-642-14438-7_25. Proceedings of the twentieth meeting, Parallel CFD 2008, held May 19–22, 2008 in Lyon, France.

Pester:2006:SAP

- [Pes06] Matthias Pester. Some aspects of parallel postprocessing for numerical simulation. In Hoffmann and Meyer [HM06], pages 53–64. CODEN LNCSA6. ISBN 3-540-33539-0 (print), 3-540-33541-2 (e-book). ISSN 1439-7358 (print), 2197-7100 (electronic). LCCN QA76.58 .P358 2006. URL http://link.springer.com/content/pdf/10.1007/3-540-33541-2_4.

Peters:2009:CFD

- [Pet09] Martin Peters, editor. *Computational Fluid Dynamics for Sport Simulation*, volume 72 of *Lecture Notes in Computational Science and Engineering*. Springer-Verlag Inc., New York, NY, USA, 2009. CODEN LNCSA6. ISBN 3-642-04465-4 (print), 3-642-04466-2 (e-book). ISSN 1439-7358 (print), 2197-7100 (electronic). LCCN QA911 .C6234 2009. URL <http://link.springer.com/book/10.1007/978-3-642-04466-3>; <http://www.springerlink.com/content/978-3-642-04466-3>.

Pavarino:2005:PSC

- [PF05] Luca F. Pavarino and Piero Colli Franzone. Parallel solution of cardiac reaction-diffusion models. In Kornhuber et al. [KHP⁺05], pages 669–676. CODEN LNCSA6. ISBN 3-540-22523-4 (print), 3-540-26825-1 (e-book). ISSN 1439-7358 (print), 2197-7100 (electronic). LCCN QA402.2 .I55 2003. URL http://link.springer.com/content/pdf/10.1007/3-540-26825-1_72. Papers from the 15th International Conference on Domain Decomposition, Freie Universität Berlin (FU), Berlin, Germany, July 21–25, 2003.

Prinja:2006:RBS

- [PF06] Anil K. Prinja and Brian C. Franke. A regularized Boltzmann scattering operator for highly forward peaked scattering. In Graziani [Gra06], pages 445–455. CODEN LNCSA6. ISBN 3-540-28122-3 (print), 3-540-28125-8 (e-book). ISSN 1439-7358 (print), 2197-7100 (electronic). LCCN MLCM 2006/40189 (Q); QC793.3.T7 C66 2006. URL http://link.springer.com/content/pdf/10.1007/3-540-28125-8_21.

Padulo:2008:RAC

- [PFG08] Mattia Padulo, Shaun A. Forth, and Marin D. Guenov. Robust aircraft conceptual design using automatic differentiation in Matlab. In Bischof et al. [BBH⁺08], pages 271–280. CODEN LNCSA6. ISBN 3-540-68935-4 (print), 3-540-68942-7 (e-book). ISSN 1439-7358 (print), 2197-7100 (electronic). LCCN QA304 .I58 2008. URL http://link.springer.com/content/pdf/10.1007/978-3-540-68942-3_24.

Pflaum:2000:ECN

- [Pfl00] Christoph Pflaum. Estimation of the condition number of additive preconditioners on tensor product grids. In Dick et al. [DRV00], pages 207–213. CODEN LNCSA6. ISBN 3-540-67157-9 (print), 3-642-58312-1 (e-book). ISSN 1439-7358 (print), 2197-7100 (electronic). LCCN QA377 .E94 1999. URL http://link.springer.com/chapter/10.1007/978-3-642-58312-4_28/.

Pfluger:2013:SAR

- [Pfl13] Dirk Pflüger. Spatially adaptive refinement. In Garcke and Griebel [GG13], pages 243–262. CODEN LNCSA6. ISBN 3-642-31702-2 (print), 3-642-31703-0 (e-book). ISSN 1439-7358 (print), 2197-7100 (electronic). LCCN ???? URL http://link.springer.com/content/pdf/10.1007/978-3-642-31703-3_12. Proceedings of workshop in Bonn, Germany, from May 16–20, 2011.

Peherstorfer:2014:CPD

- [PFPB14] Benjamin Peherstorfer, Fabian Franzelin, Dirk Pflüger, and Hans-Joachim Bungartz. Classification with probability density estimation on sparse grids. In Garcke and Pflüger [GP14], pages 255–270. ISBN 3-319-04536-9 (paperback), 3-319-04537-7 (e-book). LCCN QA188 .S63 2013. URL <http://>

link.springer.com/chapter/10.1007/978-3-319-04537-5_11/.

Pacull:2007:MET

- [PG07] François Pacull and Marc Garbey. The Multigrid/ τ -extrapolation technique applied to the immersed boundary method. In Widlund and Keyes [WK07], pages 707–714. CODEN LNCSA6. ISBN 3-540-34468-3 (print), 3-540-34469-1 (e-book). ISSN 1439-7358 (print), 2197-7100 (electronic). LCCN QA402.2 .I55 2005. URL http://link.springer.com/content/pdf/10.1007/978-3-540-34469-8_88. Proceedings of the *Sixteenth International Conference on Domain Decomposition Methods*, New York City, January 11–15, 2005.

Pacull:2009:NES

- [PG09] F. Pacull and M. Garbey. A numerically efficient scheme for elastic immersed boundaries. In Bercovier et al. [BGKW09], pages 331–338. CODEN LNCSA6. ISBN 3-642-02676-1 (print), 3-642-02677-X (e-book). ISSN 1439-7358 (print), 2197-7100 (electronic). LCCN QA402.2 .I584 2009. URL http://link.springer.com/content/pdf/10.1007/978-3-642-02677-5_37.

Pacull:2011:PIB

- [PG11a] F. Pacull and M. Garbey. A parallel immersed boundary method for blood-like suspension flow simulations. In Tromeur-Dervout et al. [TDBEE11], pages 153–160. CODEN LNCSA6. ISBN 3-642-14437-3 (print), 3-642-14438-1 (e-book). ISSN 1439-7358 (print), 2197-7100 (electronic). LCCN ????. URL http://link.springer.com/content/pdf/10.1007/978-3-642-14438-7_16. Proceedings of the twentieth meeting, Parallel CFD 2008, held May 19–22, 2008 in Lyon, France.

Palha:2011:SEA

- [PG11b] Artur Palha and Marc Gerritsma. Spectral element approximation of the Hodge- \star operator in curved elements. In Hesthaven and Rønquist [HR11], pages 283–291. CODEN LNCSA6. ISBN 3-642-15336-4 (print), 3-642-15337-2 (e-book). ISSN 1439-7358 (print), 2197-7100 (electronic). LCCN ????. URL http://link.springer.com/content/pdf/10.1007/978-3-642-15337-2_26.

Pascual:2006:ETT

- [PH06] Valérie Pascual and Laurent Hascoët. Extension of TAPE-NADE toward Fortran 95. In Bücker et al. [BCH⁺06], pages 171–179. CODEN LNCSA6. ISBN 3-540-28403-6 (print), 3-540-28438-9 (e-book). ISSN 1439-7358 (print), 2197-7100 (electronic). LCCN QA304 .I58 2006. URL http://link.springer.com/content/pdf/10.1007/3-540-28438-9_15. Proceedings of the Fourth International Conference on Automatic Differentiation, July 20–23, Chicago, Illinois.

Pascual:2008:TC

- [PH08] Valérie Pascual and Laurent Hascoët. TAPENADE for C. In Bischof et al. [BBH⁺08], pages 199–209. CODEN LNCSA6. ISBN 3-540-68935-4 (print), 3-540-68942-7 (e-book). ISSN 1439-7358 (print), 2197-7100 (electronic). LCCN QA304 .I58 2008. URL http://link.springer.com/content/pdf/10.1007/978-3-540-68942-3_18.

Pascual:2012:NHM

- [PH12] Valérie Pascual and Laurent Hascoët. Native handling of message-passing communication in data-flow analysis. In Forth et al. [FHP⁺12], pages 83–92. CODEN LNCSA6. ISBN 3-642-30022-7 (print), 3-642-30023-5 (e-book). ISSN 1439-7358 (print), 2197-7100 (electronic). LCCN ???? URL http://link.springer.com/content/pdf/10.1007/978-3-642-30023-3_8. Proceedings of the Sixth International Conference on Automatic Differentiation (AD2012) held July 23–27, 2012, in Fort Collins, Colorado, USA.

Portero:2007:EPF

- [PJ07] Laura Portero and Juan Carlos Jorge. Embedded pairs of fractional Runge–Kutta methods and improved domain decomposition techniques for parabolic problems. In Widlund and Keyes [WK07], pages 731–738. CODEN LNCSA6. ISBN 3-540-34468-3 (print), 3-540-34469-1 (e-book). ISSN 1439-7358 (print), 2197-7100 (electronic). LCCN QA402.2 .I55 2005. URL http://link.springer.com/content/pdf/10.1007/978-3-540-34469-8_91. Proceedings of the *Sixteenth International Conference on Domain Decomposition Methods*, New York City, January 11–15, 2005.

Pribram-Jones:2014:TDF

- [PJPG14] Aurora Pribram-Jones, Stefano Pittalis, E. K. U. Gross, and Kieron Burke. Thermal density functional theory in context. In Graziani et al. [GDRT14b], pages 25–60. ISBN 3-319-04912-7. ISSN 1439-7358 (print), 2197-7100 (electronic). LCCN QA71-90. URL http://link.springer.com/chapter/10.1007/978-3-319-04912-0_2/.

Passerone:2004:ECF

- [PK04] Daniele Passerone and Ioannis G. Kevrekidis. Exploration of coarse free energy surfaces templated on continuum numerical methods. In Attinger and Koumoutsakos [AK04], pages 81–91. CODEN LNCSA6. ISBN 3-540-21180-2 (print), 3-642-18756-0 (e-book). ISSN 1439-7358 (print), 2197-7100 (electronic). LCCN TA342 .M85 2004. URL http://link.springer.com/content/pdf/10.1007/978-3-642-18756-8_5. Proceedings of a Summer Program in Multi-Scale Modelling and Simulation held in Lugano, Switzerland, between August 4th and 30th, 2003.

Polyakov:2011:NSG

- [PKKS11] S. V. Polyakov, T. A. Kudryashova, E. M. Kononov, and A. A. Sverdlin. 3D numerical simulation of gas flow around reentry vehicles. In Tromeur-Dervout et al. [TDBEE11], pages 409–416. CODEN LNCSA6. ISBN 3-642-14437-3 (print), 3-642-14438-1 (e-book). ISSN 1439-7358 (print), 2197-7100 (electronic). LCCN ???? URL http://link.springer.com/content/pdf/10.1007/978-3-642-14438-7_43. Proceedings of the twentieth meeting, Parallel CFD 2008, held May 19–22, 2008 in Lyon, France.

Packwood:2011:TSE

- [PL11] David J. Packwood and Jeremy Levesley. Time step expansions and the invariant manifold approach to lattice Boltzmann models. In Gorban and Roose [GR11b], pages 169–205. CODEN LNCSA6. ISBN 3-642-14940-5 (print), 3-642-14941-3 (e-book). ISSN 1439-7358 (print), 2197-7100 (electronic). LCCN QA401 .C67 2011. URL http://link.springer.com/content/pdf/10.1007/978-3-642-14941-2_9. Extended versions of selected talks given at the international research workshop: *Coping with Complexity: Model Reduction and Data Analysis*, Ambleside, Lake District, UK, August 31–

September 4, 2009 in conjunction with the A4A6, the *6th Conference on Algorithms for Approximation*.

Pieska:2005:PCM

- [PLL05] J. Pieskä, E. Laitinen, and A. Lapin. Predictor-corrector methods for solving continuous casting problem. In Kornhuber et al. [KHP⁺05], pages 677–684. CODEN LNCSA6. ISBN 3-540-22523-4 (print), 3-540-26825-1 (e-book). ISSN 1439-7358 (print), 2197-7100 (electronic). LCCN QA402.2 .I55 2003. URL http://link.springer.com/content/pdf/10.1007/3-540-26825-1_73. Papers from the 15th International Conference on Domain Decomposition, Freie Universität Berlin (FU), Berlin, Germany, July 21–25, 2003.

Plewa:2005:AMR

- [PLW05] Tomasz Plewa, Timur Linde, and V. Gregory Weirs, editors. *Adaptive Mesh Refinement — Theory and Applications: Proceedings of the Chicago Workshop on Adaptive Mesh Refinement Methods, Sept. 3–5, 2003*, volume 41 of *Lecture Notes in Computational Science and Engineering*. Springer-Verlag Inc., New York, NY, USA, 2005. CODEN LNCSA6. ISBN 3-540-21147-0 (print), 3-540-27039-6 (e-book). ISSN 1439-7358 (print), 2197-7100 (electronic). LCCN QA377 .C46 2003. URL <http://link.springer.com/book/10.1007/b138538>.

Prasad:2000:UMA

- [PMSK00] Manoj K. Prasad, Jose L. Milovich, Aleksei I. Shestakov, and David S. Kershaw. 3D unstructured mesh ALE hydrodynamics with the upwind discontinuous Galerkin method. In Cockburn et al. [CKS00b], pages 397–405. CODEN LNCSA6. ISBN 3-540-66787-3, 3-642-64098-2 (print), 3-642-59721-1 (e-book). ISSN 1439-7358 (print), 2197-7100 (electronic). LCCN TA347.F5 D57 2000. URL http://link.springer.com/chapter/10.1007/978-3-642-59721-3_39/. Papers from the first international symposium on DGM Newport, Rhode Island, USA, May 24–26, 1999.

Prudhomme:2003:CEE

- [PO03] Serge Prudhomme and J. Tinsley Oden. Computable error estimators and adaptive techniques for fluid flow problems. In Barth and Deconinck [BD03], page ?? CODEN LNCSA6. ISBN 3-540-43758-4. ISSN 1439-7358 (print), 2197-7100 (electronic). LCCN TA357 .E78 2003. URL <http://>

www.loc.gov/catdir/enhancements/fy0815/2002030472-d.html; <http://www.loc.gov/catdir/toc/fy034/2002030472.html>.

Peeters:2013:RCH

- [POB13] Bob Peeters, Marcel Oliver, and Onno Bokhove. On the rate of convergence of the Hamiltonian particle-mesh method. In Griebel and Schweitzer [GS13b], pages 25–43. CODEN LNCSA6. ISBN 3-642-32978-0 (print), 3-642-32979-9 (e-book). ISSN 1439-7358 (print), 2197-7100 (electronic). LCCN QA297 .I58 2011. URL http://link.springer.com/content/pdf/10.1007/978-3-642-32979-1_2. Proceedings of the Sixth International Workshop on Meshfree Methods for Partial Differential Equations, October 4–6, 2011, Bonn, Germany.

Pham:2009:SAT

- [POD09] T. Pham and F. Oudin-Dardun. $C(p, q, j)$ scheme with adaptive time step and asynchronous communications. In Tuncer et al. [TGEM09], pages 329–337. CODEN LNCSA6. ISBN 3-540-92743-3 (print), 3-540-92744-1 (e-book). ISSN 1439-7358 (print), 2197-7100 (electronic). LCCN ????? URL http://link.springer.com/content/pdf/10.1007/978-3-540-92744-0_41. Parallel CFD 2007 was held in Antalya, Turkey, from May 21 to 24, 2007.

Patera:2003:GLF

- [PP03] Anthony T. Patera and Jaume Peraire. A general Lagrangian formulation for the computation of A posteriori finite element bounds. In Barth and Deconinck [BD03], page ?? CODEN LNCSA6. ISBN 3-540-43758-4. ISSN 1439-7358 (print), 2197-7100 (electronic). LCCN TA357 .E78 2003. URL <http://www.loc.gov/catdir/enhancements/fy0815/2002030472-d.html>; <http://www.loc.gov/catdir/toc/fy034/2002030472.html>.

Phipps:2012:EET

- [PP12] Eric Phipps and Roger Pawlowski. Efficient expression templates for operator overloading-based automatic differentiation. In Forth et al. [FHP⁺12], pages 309–319. CODEN LNCSA6. ISBN 3-642-30022-7 (print), 3-642-30023-5 (e-book). ISSN 1439-7358 (print), 2197-7100 (electronic). LCCN ????? URL http://link.springer.com/content/pdf/10.1007/978-3-642-30023-3_28. Proceedings of the Sixth Inter-

national Conference on Automatic Differentiation (AD2012) held July 23–27, 2012, in Fort Collins, Colorado, USA.

Philip:2007:SRR

- [PPC07] Bobby Philip, Michael Pernice, and Luis Chacón. Solution of reduced resistive magnetohydrodynamics using implicit adaptive mesh refinement. In Widlund and Keyes [WK07], pages 723–729. CODEN LNCSA6. ISBN 3-540-34468-3 (print), 3-540-34469-1 (e-book). ISSN 1439-7358 (print), 2197-7100 (electronic). LCCN QA402.2 .I55 2005. URL http://link.springer.com/content/pdf/10.1007/978-3-540-34469-8_90. Proceedings of the *Sixteenth International Conference on Domain Decomposition Methods*, New York City, January 11–15, 2005.

Pichot:2014:MBM

- [PPEdD14] Géraldine Pichot, Baptiste Poirriez, Jocelyne Erhel, and Jean-Raynald de Dreuzy. A mortar BDD method for solving flow in stochastic discrete fracture networks. In Erhel et al. [EGH⁺14], pages 99–112. ISBN 3-319-05788-X (paperback), 3-319-05789-8 (e-book). ISSN 1439-7358 (print), 2197-7100 (electronic). LCCN QA71-90. URL http://link.springer.com/chapter/10.1007/978-3-319-05789-7_8/.

Pasquetti:2007:OSP

- [PPRZ07] Richard Pasquetti, Luca F. Pavarino, Francesca Rapetti, and Elena Zampieri. Overlapping Schwarz preconditioners for Fekete spectral elements. In Widlund and Keyes [WK07], pages 715–722. CODEN LNCSA6. ISBN 3-540-34468-3 (print), 3-540-34469-1 (e-book). ISSN 1439-7358 (print), 2197-7100 (electronic). LCCN QA402.2 .I55 2005. URL http://link.springer.com/content/pdf/10.1007/978-3-540-34469-8_89. Proceedings of the *Sixteenth International Conference on Domain Decomposition Methods*, New York City, January 11–15, 2005.

Pham-Quang:2012:JAD

- [PQD12] Phuong Pham-Quang and Benoit Delinchant. Java automatic differentiation tool using virtual operator overloading. In Forth et al. [FHP⁺12], pages 241–250. CODEN LNCSA6. ISBN 3-642-30022-7 (print), 3-642-30023-5 (e-book). ISSN 1439-7358 (print), 2197-7100 (electronic). LCCN

???? URL http://link.springer.com/content/pdf/10.1007/978-3-642-30023-3_22. Proceedings of the Sixth International Conference on Automatic Differentiation (AD2012) held July 23–27, 2012, in Fort Collins, Colorado, USA.

Pasquetti:2014:SEM

- [PR14] Richard Pasquetti and Francesca Rapetti. Spectral element methods on simplicial meshes. In Azaïez et al. [AHE13], pages 37–55. ISBN 3-319-01600-8 (hardcover). ISSN 1439-7358 (print), 2197-7100 (electronic). LCCN ???? URL http://link.springer.com/chapter/10.1007/978-3-319-01601-6_3/.

Powell:2003:BBP

- [PS03] Catherine Powell and David Silvester. Black-box preconditioning for mixed formulation of self-adjoint elliptic PDEs. In Bänsch [Bän03], pages 268–285. CODEN LNCSA6. ISBN 3-642-62406-5 (print), 3-642-19014-6 (e-book). ISSN 1439-7358 (print), 2197-7100 (electronic). LCCN ???? URL http://link.springer.com/content/pdf/10.1007/978-3-642-19014-8_13.

Papadopoulos:2007:PSD

- [PS07] C. Papadopoulos and K. Sardi. Passive scalar and dissipation simulations with the linear eddy model. In Kassinos et al. [KLIM07], pages 191–202. CODEN LNCSA6. ISBN 3-540-34233-8 (print), 3-540-34234-6 (e-book). ISSN 1439-7358 (print), 2197-7100 (electronic). LCCN TA357.5.T87 C66 2007. URL http://link.springer.com/content/pdf/10.1007/978-3-540-34234-2_14. Proceedings of the symposium on *Complex Effects in Large Eddy Simulation* held in Lemesos (Limassol), Cyprus, September 21–24, 2005.

Pearlmutter:2008:UPL

- [PS08] Barak A. Pearlmutter and Jeffrey Mark Siskind. Using programming language theory to make automatic differentiation sound and efficient. In Bischof et al. [BBH⁺08], pages 79–90. CODEN LNCSA6. ISBN 3-540-68935-4 (print), 3-540-68942-7 (e-book). ISSN 1439-7358 (print), 2197-7100 (electronic). LCCN QA304 .I58 2008. URL http://link.springer.com/content/pdf/10.1007/978-3-540-68942-3_8.

Pechstein:2011:WPI

- [PS11] Clemens Pechstein and Robert Scheichl. Weighted Poincaré inequalities and applications in domain decomposition. In Huang et al. [HKWX11], pages 197–204. CODEN LNCSA6. ISBN 3-642-11303-6 (print), 3-642-11304-4 (e-book). ISSN 1439-7358 (print), 2197-7100 (electronic). LCCN QA402.2 .I58 2011. URL http://link.springer.com/content/pdf/10.1007/978-3-642-11304-8_21. Papers presented at the 19th International Conference on Domain Decomposition, DD19, hosted by the School of Mathematics and Computational Science of the Xiangtan University and the Hunan Key Laboratory for Computation and Simulation in Science and Engineering and held in Zhanjiajie, China, August 17–22, 2009.

Plotnikov:2014:SSA

- [PS14] Pavel I. Plotnikov and Jan Sokolowski. Shape sensitivity analysis of the work functional for the compressible Navier–Stokes equations. In Hoppe [Hop14], pages 343–378. ISBN 3-319-08024-5 (paperback), 3-319-08025-3 (e-book). ISSN 1439-7358 (print), 2197-7100 (electronic). LCCN QA71-90; QA377. URL http://link.springer.com/chapter/10.1007/978-3-319-08025-3_11/.

Pavarino:2002:RDD

- [PT02] Luca F. Pavarino and Andrea Toselli, editors. *Recent Developments in Domain Decomposition Methods*, volume 23 of *Lecture Notes in Computational Science and Engineering*. Springer-Verlag Inc., New York, NY, USA, 2002. CODEN LNCSA6. ISBN 3-540-43413-5 (print), 3-642-56118-7 (e-book). ISSN 1439-7358 (print), 2197-7100 (electronic). LCCN QA402.2 .R43 2002. URL <http://link.springer.com/book/10.1007/978-3-642-56118-4>; <http://www.springerlink.com/content/978-3-642-56118-4>. Papers presented at the Workshop on Domain Decomposition held at ETH, Zurich, June 7–8, 2001.

Pham:2011:POD

- [PTD11] Toan Pham and Damien Tromeur-Dervout. Proper orthogonal decomposition in decoupling large dynamical systems. In Tromeur-Dervout et al. [TDBEE11], pages 193–202. CODEN LNCSA6. ISBN 3-642-14437-3 (print), 3-642-14438-1 (e-book). ISSN 1439-7358 (print), 2197-7100 (electronic). LCCN

???? URL http://link.springer.com/content/pdf/10.1007/978-3-642-14438-7_20. Proceedings of the twentieth meeting, Parallel CFD 2008, held May 19–22, 2008 in Lyon, France.

Park:2012:MFP

- [PTS⁺12] Chan-Hee Park, Joshua Taron, Ashok Singh, Wenqing Wang, and Chris McDermott. Multiphase flow processes. In Kolditz et al. [KGSW12], pages 247–268. CODEN LNCSA6. ISBN 3-642-27176-6 (print), 3-642-27177-4 (e-book). ISSN 1439-7358 (print), 2197-7100 (electronic). LCCN ????? URL http://link.springer.com/content/pdf/10.1007/978-3-642-27177-9_12.

Puel:2014:CNS

- [Pue14] Jean-Pierre Puel. Controllability of Navier–Stokes equations. In Hoppe [Hop14], pages 379–402. ISBN 3-319-08024-5 (paperback), 3-319-08025-3 (e-book). ISSN 1439-7358 (print), 2197-7100 (electronic). LCCN QA71-90; QA377. URL http://link.springer.com/chapter/10.1007/978-3-319-08025-3_12/.

Piquet:1998:CBP

- [PV98] Jean Piquet and Xavier Vasseur. Comparisons between preconditioned BICGSTAB and a multigrid method for the resolution of the pressure equation in a Navier–Stokes solver. In Hackbusch and Wittum [HW98], pages 225–242. CODEN LNCSA6. ISBN 3-540-63133-X (softcover), 3-642-58734-8 (e-book). ISSN 1439-7358 (print), 2197-7100 (electronic). LCCN QA377 .E94 1996. URL http://link.springer.com/chapter/10.1007/978-3-642-58734-4_13/.

Poludnenko:2005:AAA

- [PVC⁺05] A. Poludnenko, P. Varnière, A. Cunningham, A. Frank, and S. Mitran. AstroBEAR: AMR for astrophysical applications-I: Methods. In Plewa et al. [PLW05], pages 331–340. CODEN LNCSA6. ISBN 3-540-21147-0 (print), 3-540-27039-6 (e-book). ISSN 1439-7358 (print), 2197-7100 (electronic). LCCN QA377 .C46 2003. URL http://link.springer.com/content/pdf/10.1007/3-540-27039-6_23.

Poplau:2000:MAT

- [PvR00] Gisela Pöplau and Ursula van Rienen. Multigrid algorithms for the tracking of electron beams. In Dick et al.

[DRV00], pages 214–220. CODEN LNCSA6. ISBN 3-540-67157-9 (print), 3-642-58312-1 (e-book). ISSN 1439-7358 (print), 2197-7100 (electronic). LCCN QA377 .E94 1999. URL http://link.springer.com/chapter/10.1007/978-3-642-58312-4_29/.

Poplau:2001:MSP

- [PvR01] G. Pöplau and U. van Rienen. Multigrid solvers for Poisson's equation in computational electromagnetics. In van Rienen et al. [vRGH01], pages 169–178. CODEN LNCSA6. ISBN 3-540-42173-4 (softcover), 3-642-56470-4 (e-book). ISSN 1439-7358 (print), 2197-7100 (electronic). LCCN TK5 .S35 2001. URL http://link.springer.com/content/pdf/10.1007/978-3-642-56470-3_18. Selected contributions presented at the 3rd International Workshop on Scientific Computing in Electrical Engineering.

Pavarino:2011:BFD

- [PW11] Luca F. Pavarino and Olof B. Widlund. BDDC and FETI–DP preconditioners for spectral element discretizations of almost incompressible elasticity. In Hesthaven and Rønquist [HR11], pages 479–486. CODEN LNCSA6. ISBN 3-642-15336-4 (print), 3-642-15337-2 (e-book). ISSN 1439-7358 (print), 2197-7100 (electronic). LCCN ???? URL http://link.springer.com/content/pdf/10.1007/978-3-642-15337-2_46.

Payli:2009:ITL

- [PYA09] Resat U. Payli, Erdal Yilmaz, and Hasan U. Akay. Impact of the TeraGrid on large-scale simulations and visualizations. In Tuncer et al. [TGEM09], pages 409–415. CODEN LNCSA6. ISBN 3-540-92743-3 (print), 3-540-92744-1 (e-book). ISSN 1439-7358 (print), 2197-7100 (electronic). LCCN ???? URL http://link.springer.com/content/pdf/10.1007/978-3-540-92744-0_51. Parallel CFD 2007 was held in Antalya, Turkey, from May 21 to 24, 2007.

Puso:2007:NSN

- [PZ07] Michael Anthony Puso and Edward Zywicz. A new stabilized nodal integration approach. In Griebel and Schweitzer [GS07b], pages 207–217. CODEN LNCSA6. ISBN 3-540-46214-7 (print), 3-540-46222-8 (e-book). ISSN 1439-7358 (print), 2197-7100 (electronic). LCCN QA377 .M45

2005. URL http://link.springer.com/content/pdf/10.1007/978-3-540-46222-4_12. Third international workshop on Meshfree Methods for Partial Differential Equations held from September 12 to September 15, 2005 in Bonn, Germany.

Peherstorfer:2013:MRR

- [PZ13] Benjamin Peherstorfer and Stefan Zimmer. Model reduction with the reduced basis method and sparse grids. In Garcke and Griebel [GG13], pages 223–242. CODEN LNCSA6. ISBN 3-642-31702-2 (print), 3-642-31703-0 (e-book). ISSN 1439-7358 (print), 2197-7100 (electronic). LCCN ????. URL http://link.springer.com/content/pdf/10.1007/978-3-642-31703-3_11. Proceedings of workshop in Bonn, Germany, from May 16–20, 2011.

Qaddouri:2008:OSM

- [Qad08] Abdessamad Qaddouri. Optimized Schwarz methods with the Yin–Yang grid for shallow water equations. In Langer et al. [LDK⁺08], pages 347–353. CODEN LNCSA6. ISBN 3-540-75198-X (print), 3-540-75199-8 (e-book). ISSN 1439-7358 (print), 2197-7100 (electronic). LCCN QA402.2 .I55 2006. URL http://link.springer.com/content/pdf/10.1007/978-3-540-75199-1_42. 17th International Conference on Domain Decomposition Methods held at St. Wolfgang/Strobl, Austria, July 3–7, 2006.

Quirk:2005:CSS

- [Qui05] James J. Quirk. Computational science: “Same Old Silence, Same Old Mistakes”: “Something More Is Needed ...”. In Plewa et al. [PLW05], pages 3–28. CODEN LNCSA6. ISBN 3-540-21147-0 (print), 3-540-27039-6 (e-book). ISSN 1439-7358 (print), 2197-7100 (electronic). LCCN QA377 .C46 2003. URL http://link.springer.com/content/pdf/10.1007/3-540-27039-6_1.

Quinlan:2011:FEE

- [Qui11] Nathan J. Quinlan. Fast exact evaluation of particle interaction vectors in the finite volume particle method. In Griebel and Schweitzer [GS11c], pages 219–234. CODEN LNCSA6. ISBN 3-642-16228-2 (print), 3-642-16229-0 (e-book). ISSN 1439-7358 (print), 2197-7100 (electronic). LCCN ????. URL http://link.springer.com/content/pdf/10.1007/978-3-642-16229-9_14. Proceedings of the Fifth In-

ternational Workshop on Meshfree Methods for Partial Differential Equations held from August 17 to August 19, 2009 in Bonn, Germany.

Rall:2006:PAD

- [Ral06] Louis B. Rall. Perspectives on automatic differentiation: Past, present, and future? In Bücker et al. [BCH⁺06], pages 1–14. CODEN LNCSA6. ISBN 3-540-28403-6 (print), 3-540-28438-9 (e-book). ISSN 1439-7358 (print), 2197-7100 (electronic). LCCN QA304 .I58 2006. URL http://link.springer.com/content/pdf/10.1007/3-540-28438-9_1. Proceedings of the Fourth International Conference on Automatic Differentiation, July 20–23, Chicago, Illinois.

Randrianarivony:2008:PCM

- [RB08] Maharavo Randrianarivony and Guido Brunnett. Preparation of CAD and molecular surfaces for meshfree solvers. In Griebel and Schweitzer [GS08d], pages 231–245. CODEN LNCSA6. ISBN 3-540-79993-1 (print), 3-540-79994-X (e-book). ISSN 1439-7358 (print), 2197-7100 (electronic). LCCN ???? URL http://link.springer.com/content/pdf/10.1007/978-3-540-79994-8_14. Fourth International Workshop on Meshfree Methods for Partial Differential Equations held from September 17 to September 20, 2007 in Bonn, Germany.

Remis:2010:MOR

- [RB10] Rob F. Remis and Neil V. Budko. A model-order reduction approach to parametric electromagnetic inversion. In Koren and Vuik [KV10], pages 1–19. CODEN LNCSA6. ISBN 3-642-03343-1 (print), 3-642-03344-X (e-book). ISSN 1439-7358 (print), 2197-7100 (electronic). LCCN Q183.9 .A35 2010. URL http://link.springer.com/content/pdf/10.1007/978-3-642-03344-5_1.

Rodriguez:2004:RDD

- [RDD04] Salvador A. Rodriguez, Jean-Michel Dion, and Luc Dugard. Robust delay dependent stability analysis of neutral systems. In Niculescu and Gu [NG04], pages 269–283. CODEN LNCSA6. ISBN 3-540-20890-9 (print), 3-642-18482-0 (e-book). ISSN 1439-7358 (print), 2197-7100 (electronic). LCCN TJ213 .A253 2004. URL http://link.springer.com/content/pdf/10.1007/978-3-642-18482-6_20. Most

of the chapters are based on the materials presented in the CNRS-NSF Workshop *Advances in Time-Delay Systems* held in Paris in January 22–24, 2003.

Ressel:2014:RPS

- [RDD⁺14] Rudolf Ressel, Patrick Dülk, Stephan Dahlke, Kamil S. Kazimierski, and Peter Maass. Regularity of the parameter-to-state map of a parabolic partial differential equation. In Dahlke et al. [DDG⁺14], pages 53–67. ISBN 3-319-08159-4. LCCN ???? URL http://link.springer.com/chapter/10.1007/978-3-319-08159-5_3/.

Rabczuk:2002:SMM

- [RE02] Timon Rabczuk and Josef Eibl. The SPH/ MLSPH method for the simulation of high velocity concrete fragmentation. In Griebel and Schweitzer [GS02b], pages 327–338. CODEN LNCSA6. ISBN 3-540-43891-2 (print), 3-642-56103-9 (e-book). ISSN 1439-7358 (print), 2197-7100 (electronic). LCCN QA377 .M45 2003. URL http://link.springer.com/content/pdf/10.1007/978-3-642-56103-0_23. Proceedings of a workshop on Meshfree Methods for Partial Differential Equations, Institut für Angewandte Mathematik, Rheinische Friedrich-Wilhelms Universität Bonn, September 11–14, 2001.

Reisinger:2013:AEA

- [Rei13] Christoph Reisinger. Asymptotic expansion around principal components and the complexity of dimension adaptive algorithms. In Garcke and Griebel [GG13], pages 263–276. CODEN LNCSA6. ISBN 3-642-31702-2 (print), 3-642-31703-0 (e-book). ISSN 1439-7358 (print), 2197-7100 (electronic). LCCN ???? URL http://link.springer.com/content/pdf/10.1007/978-3-642-31703-3_13. Proceedings of workshop in Bonn, Germany, from May 16–20, 2011.

Reusken:1998:ACR

- [Reu98] Arnold Reusken. Approximate Cyclic reduction preconditioning. In Hackbusch and Wittum [HW98], pages 243–259. CODEN LNCSA6. ISBN 3-540-63133-X (softcover), 3-642-58734-8 (e-book). ISSN 1439-7358 (print), 2197-7100 (electronic). LCCN QA377 .E94 1996. URL http://link.springer.com/chapter/10.1007/978-3-642-58734-4_14/.

Reusken:2000:AMP

- [Reu00] Arnold Reusken. An algebraic multilevel preconditioner for symmetric positive definite and indefinite problems. In Frommer et al. [FLMS00], pages 66–83. CODEN LNCSA6. ISBN 3-540-67732-1 (print), 3-642-58333-4 (e-book). ISSN 1439-7358 (print), 2197-7100 (electronic). LCCN QC793.3.G38 N86 2000. URL http://link.springer.com/chapter/10.1007/978-3-642-58333-9_6/.

Rodriguez:2003:THE

- [RFV03] Ana Alonso Rodríguez, Paolo Fernandes, and Alberto Valli. The time-harmonic eddy-current problem in general domains: Solvability via scalar potentials. In Carstensen et al. [CFH⁺03], pages 143–163. CODEN LNCSA6. ISBN 3-540-44392-4 (print), 3-642-55745-7 (e-book). ISSN 1439-7358 (print), 2197-7100 (electronic). LCCN QC665.E4 G35 2001. URL http://link.springer.com/content/pdf/10.1007/978-3-642-55745-3_10.

Rothmund:2001:CEE

- [RGBvR01] K. Rothmund, H.-W. Glock, M. Borecky, and U. van Rien. Calculation of electromagnetic eigenmodes in complex structures using coupled S-parameter calculation. In van Rien et al. [vRGH01], pages 161–168. CODEN LNCSA6. ISBN 3-540-42173-4 (softcover), 3-642-56470-4 (e-book). ISSN 1439-7358 (print), 2197-7100 (electronic). LCCN TK5 .S35 2001. URL http://link.springer.com/content/pdf/10.1007/978-3-642-56470-3_17. Selected contributions presented at the 3rd International Workshop on Scientific Computing in Electrical Engineering.

Ruter:2013:CSN

- [RH13] Marcus Rüter and Michael Hillman. Corrected stabilized non-conforming nodal integration in meshfree methods. In Griebel and Schweitzer [GS13b], pages 75–92. CODEN LNCSA6. ISBN 3-642-32978-0 (print), 3-642-32979-9 (e-book). ISSN 1439-7358 (print), 2197-7100 (electronic). LCCN QA297 .I58 2011. URL http://link.springer.com/content/pdf/10.1007/978-3-642-32979-1_5. Proceedings of the Sixth International Workshop on Meshfree Methods for Partial Differential Equations, October 4–6, 2011, Bonn, Germany.

Rasetarinera:2000:SRA

- [RHH00] P. Rasetarinera, M. Y. Hussaini, and F. Q. Hu. Some remarks on the accuracy of a discontinuous Galerkin method. In Cockburn et al. [CKS00b], pages 407–412. CODEN LNCSA6. ISBN 3-540-66787-3, 3-642-64098-2 (print), 3-642-59721-1 (e-book). ISSN 1439-7358 (print), 2197-7100 (electronic). LCCN TA347.F5 D57 2000. URL http://link.springer.com/chapter/10.1007/978-3-642-59721-3_40/. Papers from the first international symposium on DGM Newport, Rhode Island, USA, May 24–26, 1999.

Rietman:2001:CMS

- [Rie01] R. Rietman. A common-mode skeleton model for EMC simulations. In van Rienen et al. [vRGH01], pages 35–53. CODEN LNCSA6. ISBN 3-540-42173-4 (softcover), 3-642-56470-4 (e-book). ISSN 1439-7358 (print), 2197-7100 (electronic). LCCN TK5 .S35 2001. URL http://link.springer.com/content/pdf/10.1007/978-3-642-56470-3_3. Selected contributions presented at the 3rd International Workshop on Scientific Computing in Electrical Engineering.

Rieger:2011:SIS

- [Rie11] Christian Rieger. Sampling inequalities and support vector machines for Galerkin type data. In Griebel and Schweitzer [GS11c], pages 51–63. CODEN LNCSA6. ISBN 3-642-16228-2 (print), 3-642-16229-0 (e-book). ISSN 1439-7358 (print), 2197-7100 (electronic). LCCN ????? URL http://link.springer.com/content/pdf/10.1007/978-3-642-16229-9_3. Proceedings of the Fifth International Workshop on Meshfree Methods for Partial Differential Equations held from August 17 to August 19, 2009 in Bonn, Germany.

Rijkhorst:2005:ASP

- [RIM05] Erik-Jan Rijkhorst, Vincent Icke, and Garrelt Mellema. 3D AMR simulations of point-symmetric nebulae. In Plewa et al. [PLW05], pages 443–452. CODEN LNCSA6. ISBN 3-540-21147-0 (print), 3-540-27039-6 (e-book). ISSN 1439-7358 (print), 2197-7100 (electronic). LCCN QA377 .C46 2003. URL http://link.springer.com/content/pdf/10.1007/3-540-27039-6_33.

Ringler:2011:MVT

- [Rin11] Todd D. Ringler. Momentum, vorticity and transport: Considerations in the design of a finite-volume dynamical core. In Lauritzen et al. [LJTN11], pages 143–183. CODEN LNCSA6. ISBN 3-642-11639-6 (print), 3-642-11640-X (e-book). ISSN 1439-7358 (print), 2197-7100 (electronic). LCCN QC861.3 .N86 2011. URL http://link.springer.com/content/pdf/10.1007/978-3-642-11640-7_7. Proceedings of the colloquium *Numerical Techniques for Global Atmospheric Models* held at the National Center for Atmospheric Research (NCAR) in Boulder, Colorado, 1–13 June 2008.

Rappaz:2003:LSS

- [RJB03] M. Rappaz, A. Jacot, and W. J. Boettinger. Last stage solidification of alloys: a theoretical study of dendrite arm and grain coalescence. In Emmerich et al. [ENS03], page ?? CODEN LNCSA6. ISBN 3-540-40367-1. ISSN 1439-7358 (print), 2197-7100 (electronic). LCCN QC173.4.I57 I57 2003. URL <http://www.loc.gov/catdir/enhancements/fy0818/2003060231-d.html>. Papers from the workshop on “Computational Physics of Transport and Interfacial Dynamics”, Dresden, February 25–March 8, 2002.

Rudnyi:2005:BCI

- [RK05] Evgenii B. Rudnyi and Jan G. Korvink. Boundary condition independent thermal model. In Benner et al. [BMS05c], pages 345–348. CODEN LNCSA6. ISBN 3-540-24545-6 (print), 3-540-27909-1 (e-book). ISSN 1439-7358 (print), 2197-7100 (electronic). LCCN TA347.C68 D56 2005. URL http://link.springer.com/content/pdf/10.1007/3-540-27909-1_17.

Rapin:2005:STF

- [RL05] Gerd Rapin and Gert Lube. A stabilized three-field formulation and its decoupling for advection-diffusion problems. In Kornhuber et al. [KHP⁺05], pages 275–282. CODEN LNCSA6. ISBN 3-540-22523-4 (print), 3-540-26825-1 (e-book). ISSN 1439-7358 (print), 2197-7100 (electronic). LCCN QA402.2 .I55 2003. URL http://link.springer.com/content/pdf/10.1007/3-540-26825-1_26. Papers from the 15th International Conference on Domain Decomposition, Freie Universität Berlin (FU), Berlin, Germany, July 21–25, 2003.

Rohe:2011:LES

- [RL11a] Lars Röhe and Gert Lube. Large-eddy simulation of wall-bounded turbulent flows: Layer-adapted meshes vs. weak Dirichlet boundary conditions. In Clavero et al. [CGL11], pages 197–205. CODEN LNCSA6. ISBN 3-642-19664-0 (print), 3-642-19665-9 (e-book). ISSN 1439-7358 (print), 2197-7100 (electronic). LCCN ???? URL http://link.springer.com/content/pdf/10.1007/978-3-642-19665-2_21. Selected papers from the proceedings of BAIL 2010 (Boundary and Interior Layers — Computational and Asymptotic Methods), held from 5 to 9 July 2010 at the University of Zaragoza, Spain.

Rozza:2011:RBA

- [RL11b] Gianluigi Rozza and Toni Lassila. Reduced basis approximation for shape optimization in thermal flows with a parametrized polynomial geometric map. In Hesthaven and Rønquist [HR11], pages 307–315. CODEN LNCSA6. ISBN 3-642-15336-4 (print), 3-642-15337-2 (e-book). ISSN 1439-7358 (print), 2197-7100 (electronic). LCCN ???? URL http://link.springer.com/content/pdf/10.1007/978-3-642-15337-2_28.

Roose:2004:SSB

- [RLEM04] Dirk Roose, Tatyana Luzyanina, Koen Engelborghs, and Wim Michiels. Software for stability and bifurcation analysis of delay differential equations and applications to stabilization. In Niculescu and Gu [NG04], pages 167–181. CODEN LNCSA6. ISBN 3-540-20890-9 (print), 3-642-18482-0 (e-book). ISSN 1439-7358 (print), 2197-7100 (electronic). LCCN TJ213 .A253 2004. URL http://link.springer.com/content/pdf/10.1007/978-3-642-18482-6_12. Most of the chapters are based on the materials presented in the CNRS-NSF Workshop *Advances in Time-Delay Systems* held in Paris in January 22–24, 2003.

Roderus:2013:APS

- [RMBR13] Martin Roderus, Alexei Matveev, Hans-Joachim Bungartz, and Notker Rösch. Advances in the parallelisation of software for quantum chemistry applications. In Bader et al. [BBW13], pages 119–136. ISBN 3-642-38761-6, 3-642-38762-4 (e-book). ISSN 1439-7358 (print), 2197-7100 (electronic).

LCCN ????. URL http://link.springer.com/chapter/10.1007/978-3-642-38762-3_6/.

Ryland:2011:MCP

- [RMK11] Brett N. Ryland and Hans Z. Munthe-Kaas. On multivariate Chebyshev polynomials and spectral approximations on triangles. In Hesthaven and Rønquist [HR11], pages 19–41. CODEN LNCSA6. ISBN 3-642-15336-4 (print), 3-642-15337-2 (e-book). ISSN 1439-7358 (print), 2197-7100 (electronic). LCCN ????. URL http://link.springer.com/content/pdf/10.1007/978-3-642-15337-2_2.

Roux:2005:AOI

- [RMSB05] F.-X. Roux, F. Magoulès, L. Series, and Y. Boubendir. Approximation of optimal interface boundary conditions for two-lagrange multiplier FETI method. In Kornhuber et al. [KHP⁺05], pages 283–290. CODEN LNCSA6. ISBN 3-540-22523-4 (print), 3-540-26825-1 (e-book). ISSN 1439-7358 (print), 2197-7100 (electronic). LCCN QA402.2 .I55 2003. URL http://link.springer.com/content/pdf/10.1007/3-540-26825-1_27. Papers from the 15th International Conference on Domain Decomposition, Freie Universität Berlin (FU), Berlin, Germany, July 21–25, 2003.

Rodriguez:2013:HDD

- [Rod13] Ana Alonso Rodríguez. Heterogeneous domain decomposition methods for eddy current problems. In Bank [Ban13], pages 95–102. ISBN 3-642-35274-X (hardcover), 3-642-35275-8 (e-book). ISSN 1439-7358 (print), 2197-7100 (electronic). LCCN QA402.2 .I58 2011. URL http://link.springer.com/chapter/10.1007/978-3-642-35275-1_9/.

Rognes:2012:ATS

- [Rog12] Marie E. Rognes. Automated testing of saddle point stability conditions. In Logg et al. [LMW12a], pages 657–671. CODEN LNCSA6. ISBN 3-642-23098-9 (print), 3-642-23099-7 (e-book). ISSN 1439-7358 (print), 2197-7100 (electronic). LCCN ????. URL http://link.springer.com/content/pdf/10.1007/978-3-642-23099-8_36. The software developed by the FEniCS Project is free for all to use and modify (licensed under the GNU (L)GPL), and so is this book.

Rood:2011:PRD

- [Roo11] Richard B. Rood. A perspective on the role of the dynamical core in the development of weather and climate models. In Lauritzen et al. [LJTN11], pages 513–537. CODEN LNCSA6. ISBN 3-642-11639-6 (print), 3-642-11640-X (e-book). ISSN 1439-7358 (print), 2197-7100 (electronic). LCCN QC861.3 .N86 2011. URL http://link.springer.com/content/pdf/10.1007/978-3-642-11640-7_15. Proceedings of the colloquium *Numerical Techniques for Global Atmospheric Models* held at the National Center for Atmospheric Research (NCAR) in Boulder, Colorado, 1–13 June 2008.

Rosswog:2011:SRS

- [Ros11] Stephan Rosswog. Special-relativistic smoothed particle hydrodynamics: a benchmark suite. In Griebel and Schweitzer [GS11c], pages 89–103. CODEN LNCSA6. ISBN 3-642-16228-2 (print), 3-642-16229-0 (e-book). ISSN 1439-7358 (print), 2197-7100 (electronic). LCCN ????? URL http://link.springer.com/content/pdf/10.1007/978-3-642-16229-9_6. Proceedings of the Fifth International Workshop on Meshfree Methods for Partial Differential Equations held from August 17 to August 19, 2009 in Bonn, Germany.

Roux:2009:FMN

- [Rou09] François-Xavier Roux. A FETI-2LM method for non-matching grids. In Bercovier et al. [BGKW09], pages 121–128. CODEN LNCSA6. ISBN 3-642-02676-1 (print), 3-642-02677-X (e-book). ISSN 1439-7358 (print), 2197-7100 (electronic). LCCN QA402.2 .I584 2009. URL http://link.springer.com/content/pdf/10.1007/978-3-642-02677-5_11.

Roychowdhury:2001:MTP

- [Roy01] J. Roychowdhury. Multi-time PDEs for dynamical system analysis. In van Rienen et al. [vRGH01], pages 3–14. CODEN LNCSA6. ISBN 3-540-42173-4 (softcover), 3-642-56470-4 (e-book). ISSN 1439-7358 (print), 2197-7100 (electronic). LCCN TK5 .S35 2001. URL http://link.springer.com/content/pdf/10.1007/978-3-642-56470-3_1. Selected contributions presented at the 3rd International Workshop on Scientific Computing in Electrical Engineering.

Randies:2002:SDS

- [RP02] Philip W. Randies and Albert G. Petschek. Stability of DPD and SPH. In Griebel and Schweitzer [GS02b], pages 339–357. CODEN LNCSA6. ISBN 3-540-43891-2 (print), 3-642-56103-9 (e-book). ISSN 1439-7358 (print), 2197-7100 (electronic). LCCN QA377 .M45 2003. URL http://link.springer.com/content/pdf/10.1007/978-3-642-56103-0_24. Proceedings of a workshop on Meshfree Methods for Partial Differential Equations, Institut für Angewandte Mathematik, Rheinische Friedrich-Wilhelms Universität Bonn, September 11–14, 2001.

Rasvan:2004:CSI

- [RP04] Vladimir Rasvan and Dan Popescu. Control of systems with input delay — an elementary approach. In Niculescu and Gu [NG04], pages 103–110. CODEN LNCSA6. ISBN 3-540-20890-9 (print), 3-642-18482-0 (e-book). ISSN 1439-7358 (print), 2197-7100 (electronic). LCCN TJ213 .A253 2004. URL http://link.springer.com/content/pdf/10.1007/978-3-642-18482-6_7. Most of the chapters are based on the materials presented in the CNRS-NSF Workshop *Advances in Time-Delay Systems* held in Paris in January 22–24, 2003.

Rosswog:2008:MM

- [RP08] Stephan Rosswog and Daniel Price. 3D meshfree magneto-hydrodynamics. In Griebel and Schweitzer [GS08d], pages 247–275. CODEN LNCSA6. ISBN 3-540-79993-1 (print), 3-540-79994-X (e-book). ISSN 1439-7358 (print), 2197-7100 (electronic). LCCN ???? URL http://link.springer.com/content/pdf/10.1007/978-3-540-79994-8_15. Fourth International Workshop on Meshfree Methods for Partial Differential Equations held from September 17 to September 20, 2007 in Bonn, Germany.

Radul:2012:AFI

- [RP12] Alexey Radul and Barak A. Pearlmutter. AD in fortran: Implementation via preprocessor. In Forth et al. [FHP⁺12], pages 273–284. CODEN LNCSA6. ISBN 3-642-30022-7 (print), 3-642-30023-5 (e-book). ISSN 1439-7358 (print), 2197-7100 (electronic). LCCN ???? URL http://link.springer.com/content/pdf/10.1007/978-3-642-30023-3_25. Proceedings of the Sixth International Conference on Automatic

Differentiation (AD2012) held July 23–27, 2012, in Fort Collins, Colorado, USA.

Rannacher:2010:AFE

- [RR10] R. Rannacher and T. Richter. An adaptive finite element method for fluid-structure interaction problems based on a fully Eulerian formulation. In Bungartz et al. [BMS10], pages 159–191. CODEN LNCSA6. ISBN 3-642-14205-2 (print), 3-642-14206-0 (e-book). ISSN 1439-7358 (print), 2197-7100 (electronic). LCCN TA357.5.F58 F586b 2010. URL http://link.springer.com/content/pdf/10.1007/978-3-642-14206-2_7. Selected contributions from the *First International Workshop on Computational Engineering — special topic Fluid-Structure Interactions* held in Herrsching, Germany, in October 2009.

Rixen:2007:MDD

- [RRG07] Daniel Rixen, Christian Rey, and Pierre Gosselet. MIN-ISYMPIUM 3: Domain decomposition methods applied to challenging engineering problems. In Widlund and Keyes [WK07], page 221. CODEN LNCSA6. ISBN 3-540-34468-3 (print), 3-540-34469-1 (e-book). ISSN 1439-7358 (print), 2197-7100 (electronic). LCCN QA402.2 .I55 2005. URL http://link.springer.com/content/pdf/10.1007/978-3-540-34469-8_23. Proceedings of the *Sixteenth International Conference on Domain Decomposition Methods*, New York City, January 11–15, 2005.

Rumpf:2006:GPU

- [RS06] Martin Rumpf and Robert Strzodka. Graphics processor units: New prospects for parallel computing. In Bruaset and Tveito [BT06], pages 89–132. CODEN LNCSA6. ISBN 3-540-29076-1 (print), 3-540-31619-1 (e-book). ISSN 1439-7358 (print), 2197-7100 (electronic). LCCN QA377 .N87 2006. URL http://link.springer.com/content/pdf/10.1007/3-540-31619-1_3.

Richter:2011:TDD

- [RS11] Andreas Richter and Jörg Stiller. A two-dimensional DG-SEM approach to investigate resonance frequencies and sound radiation of woodwind instruments. In Hesthaven and Rønquist [HR11], pages 487–494. CODEN LNCSA6. ISBN 3-642-15336-4 (print), 3-642-15337-2 (e-book). ISSN 1439-7358

(print), 2197-7100 (electronic). LCCN ???? URL http://link.springer.com/content/pdf/10.1007/978-3-642-15337-2_47.

Reynolds:2012:SJC

- [RS12] Daniel R. Reynolds and Ravi Samtaney. Sparse Jacobian construction for mapped grid visco-resistive magnetohydrodynamics. In Forth et al. [FHP⁺12], pages 11–21. CODEN LNCSA6. ISBN 3-642-30022-7 (print), 3-642-30023-5 (e-book). ISSN 1439-7358 (print), 2197-7100 (electronic). LCCN ???? URL http://link.springer.com/content/pdf/10.1007/978-3-642-30023-3_2. Proceedings of the Sixth International Conference on Automatic Differentiation (AD2012) held July 23–27, 2012, in Fort Collins, Colorado, USA.

Roettger:2002:FVH

- [RSBE02] St. Roettger, M. Schulz, W. Bartelheimer, and Th. Ertl. Flow visualization on hierarchical Cartesian grids. In Breuer et al. [BDZ02], pages 139–146. CODEN LNCSA6. ISBN 3-540-42946-8 (print), 3-642-55919-0 (e-book). ISSN 1439-7358 (print), 2197-7100 (electronic). LCCN Q183.9 .I58 2001. URL http://link.springer.com/content/pdf/10.1007/978-3-642-55919-8_16.

Riton:2011:DDA

- [RSK11] Julien Riton, Taoufik Sassi, and Radek Kucera. On domain decomposition algorithms for contact problems with Tresca friction. In Huang et al. [HKWX11], pages 367–374. CODEN LNCSA6. ISBN 3-642-11303-6 (print), 3-642-11304-4 (e-book). ISSN 1439-7358 (print), 2197-7100 (electronic). LCCN QA402.2 .I58 2011. URL http://link.springer.com/content/pdf/10.1007/978-3-642-11304-8_42. Papers presented at the 19th International Conference on Domain Decomposition, DD19, hosted by the School of Mathematics and Computational Science of the Xiangtan University and the Hunan Key Laboratory for Computation and Simulation in Science and Engineering and held in Zhanjiajie, China, August 17–22, 2009.

Rabah:2004:SSS

- [RSR04] Rabah Rabah, Grigory M. Sklyar, and Alexandr V. Rezounenko. On strong stability and stabilizability of linear systems of neutral type. In Niculescu and Gu [NG04],

pages 257–268. CODEN LNCSA6. ISBN 3-540-20890-9 (print), 3-642-18482-0 (e-book). ISSN 1439-7358 (print), 2197-7100 (electronic). LCCN TJ213 .A253 2004. URL http://link.springer.com/content/pdf/10.1007/978-3-642-18482-6_19. Most of the chapters are based on the materials presented in the CNRS-NSF Workshop *Advances in Time-Delay Systems* held in Paris in January 22–24, 2003.

Rentrop:1999:MMS

- [RSS99] P. Rentrop, O. Scherf, and B. Simeon. Mechanical multi-body systems with deformable components. In Bungartz et al. [BDZ99], pages 143–155. CODEN LNCSA6. ISBN 3-540-65730-4 (print), 3-642-60155-3 (e-book). ISSN 1439-7358 (print), 2197-7100 (electronic). LCCN Q183.9.I58 1998. URL http://link.springer.com/chapter/10.1007/978-3-642-60155-2_12/.

Ribalta:2008:AAM

- [RSVV08] Angel Ribalta, Christina Stoecker, Simon Vey, and Axel Voigt. AMDiS — adaptive multidimensional simulations: Parallel concepts. In Langer et al. [LDK⁺08], pages 615–621. CODEN LNCSA6. ISBN 3-540-75198-X (print), 3-540-75199-8 (e-book). ISSN 1439-7358 (print), 2197-7100 (electronic). LCCN QA402.2 .I55 2006. URL http://link.springer.com/content/pdf/10.1007/978-3-540-75199-1_77. 17th International Conference on Domain Decomposition Methods held at St. Wolfgang/Strobl, Austria, July 3–7, 2006.

Reed:2012:CAD

- [RU12] James A. Reed and Jean Utke. Combining automatic differentiation methods for high-dimensional nonlinear models. In Forth et al. [FHP⁺12], pages 23–33. CODEN LNCSA6. ISBN 3-642-30022-7 (print), 3-642-30023-5 (e-book). ISSN 1439-7358 (print), 2197-7100 (electronic). LCCN ???? URL http://link.springer.com/content/pdf/10.1007/978-3-642-30023-3_3. Proceedings of the Sixth International Conference on Automatic Differentiation (AD2012) held July 23–27, 2012, in Fort Collins, Colorado, USA.

Rude:1999:TTT

- [Rüd99] U. Rüdè. Technological trends and their impact on the future of supercomputers. In Bungartz et al. [BDZ99], pages 459–471. CODEN LNCSA6. ISBN 3-540-65730-4 (print),

3-642-60155-3 (e-book). ISSN 1439-7358 (print), 2197-7100 (electronic). LCCN Q183.9.I58 1998. URL http://link.springer.com/chapter/10.1007/978-3-642-60155-2_38/.

Runborg:2005:INM

- [Run05] Olof Runborg. Introduction to normal multiresolution approximation. In Engquist et al. [ERL05], pages 205–224. CODEN LNCSA6. ISBN 3-540-25335-1 (print), 3-540-26444-2 (e-book). ISSN 1439-7358 (print), 2197-7100 (electronic). LCCN TA347.F5 M85 2005. URL http://link.springer.com/content/pdf/10.1007/3-540-26444-2_11. Proceedings of *Multiscale Methods in Science and Engineering*, Uppsala, Sweden, January 26–28, 2004.

Runger:2006:PPM

- [Rün06] Gudula Rüniger. Parallel programming models for irregular algorithms. In Hoffmann and Meyer [HM06], pages 3–23. CODEN LNCSA6. ISBN 3-540-33539-0 (print), 3-540-33541-2 (e-book). ISSN 1439-7358 (print), 2197-7100 (electronic). LCCN QA76.58 .P358 2006. URL http://link.springer.com/content/pdf/10.1007/3-540-33541-2_1.

Runborg:2009:WAB

- [Run09a] Olof Runborg. Wavelets and wavelet based numerical homogenization. In Engquist et al. [ELR09], pages 195–235. CODEN LNCSA6. ISBN 3-540-88856-X (paperback), 3-540-88857-8 (e-book). ISSN 1439-7358 (print), 2197-7100 (electronic). LCCN Q183.9 .M86 2009. URL http://link.springer.com/content/pdf/10.1007/978-3-540-88857-4_4. Summer School on Multiscale Modeling and Simulation in Science, Bosön, Lidingö outside Stockholm, Sweden, June 2007.

Runborg:2009:WWB

- [Run09b] Olof Runborg. Wavelets and wavelet based numerical homogenization. In Engquist et al. [ELR09], pages 195–235. CODEN LNCSA6. ISBN 3-540-88856-X (paperback), 3-540-88857-8 (e-book). ISSN 1439-7358 (print), 2197-7100 (electronic). LCCN Q183.9 .M86 2009. URL http://link.springer.com/content/pdf/10.1007/978-3-540-88857-4_4. Summer School on Multiscale Modeling and Simulation in Science, Bosön, Lidingö outside Stockholm, Sweden, June 2007.

Rodriguez:2002:DDM

- [RV02] Ana Alonso Rodríguez and Alberto Valli. Domain decomposition methods for time-harmonic Maxwell equations: Numerical results. In Pavarino and Toselli [PT02], pages 157–171. CODEN LNCSA6. ISBN 3-540-43413-5 (print), 3-642-56118-7 (e-book). ISSN 1439-7358 (print), 2197-7100 (electronic). LCCN QA402.2 .R43 2002. URL http://link.springer.com/content/pdf/10.1007/978-3-642-56118-4_10. Papers presented at the Workshop on Domain Decomposition held at ETH, Zurich, June 7–8, 2001.

Ramesh:2011:KMM

- [RVD11] V. Ramesh, S. Vivek, and S. M. Deshpande. Kinetic meshless methods for unsteady moving boundaries. In Griebel and Schweitzer [GS11c], pages 189–206. CODEN LNCSA6. ISBN 3-642-16228-2 (print), 3-642-16229-0 (e-book). ISSN 1439-7358 (print), 2197-7100 (electronic). LCCN ???? URL http://link.springer.com/content/pdf/10.1007/978-3-642-16229-9_12. Proceedings of the Fifth International Workshop on Meshfree Methods for Partial Differential Equations held from August 17 to August 19, 2009 in Bonn, Germany.

Riviere:2000:DGM

- [RW00] Béatrice Rivière and Mary F. Wheeler. A discontinuous Galerkin method applied to nonlinear parabolic equations. In Cockburn et al. [CKS00b], pages 231–244. CODEN LNCSA6. ISBN 3-540-66787-3, 3-642-64098-2 (print), 3-642-59721-1 (e-book). ISSN 1439-7358 (print), 2197-7100 (electronic). LCCN TA347.F5 D57 2000. URL http://link.springer.com/chapter/10.1007/978-3-642-59721-3_17/. Papers from the first international symposium on DGM Newport, Rhode Island, USA, May 24–26, 1999.

Riehme:2008:ATD

- [RWS08] Jan Riehme, Andrea Walther, and Jörg Stiller. Adjoints for time-dependent optimal control. In Bischof et al. [BBH⁺08], pages 175–185. CODEN LNCSA6. ISBN 3-540-68935-4 (print), 3-540-68942-7 (e-book). ISSN 1439-7358 (print), 2197-7100 (electronic). LCCN QA304 .I58 2008. URL http://link.springer.com/content/pdf/10.1007/978-3-540-68942-3_16.

Rahman:2007:NVM

- [RX07] Talal Rahman and Xuejun Xu. A new variant of the mortar technique for the Crouzeix–Raviart finite element. In Widlund and Keyes [WK07], pages 463–470. CODEN LNCSA6. ISBN 3-540-34468-3 (print), 3-540-34469-1 (e-book). ISSN 1439-7358 (print), 2197-7100 (electronic). LCCN QA402.2 .I55 2005. URL http://link.springer.com/content/pdf/10.1007/978-3-540-34469-8_58. Proceedings of the *Sixteenth International Conference on Domain Decomposition Methods*, New York City, January 11–15, 2005.

Rahman:2005:ASP

- [RXH05] Talal Rahman, Xuejun Xu, and Ronald H. W. Hoppe. On an additive Schwarz preconditioner for the Crouzeix–Raviart mortar finite element. In Kornhuber et al. [KHP⁺05], pages 335–342. CODEN LNCSA6. ISBN 3-540-22523-4 (print), 3-540-26825-1 (e-book). ISSN 1439-7358 (print), 2197-7100 (electronic). LCCN QA402.2 .I55 2003. URL http://link.springer.com/content/pdf/10.1007/3-540-26825-1_33. Papers from the 15th International Conference on Domain Decomposition, Freie Universität Berlin (FU), Berlin, Germany, July 21–25, 2003.

Riviere:2014:DBM

- [RY14] Beatrice Riviere and Xin Yang. A domain-based multinumeric method for the steady-state convection-diffusion equation. In Erhel et al. [EGH⁺14], pages 113–125. ISBN 3-319-05788-X (paperback), 3-319-05789-8 (e-book). ISSN 1439-7358 (print), 2197-7100 (electronic). LCCN QA71-90. URL http://link.springer.com/chapter/10.1007/978-3-319-05789-7_9/.

Ryan:2015:EST

- [Rya15] Jennifer K. Ryan. Exploiting superconvergence through Smoothness-Increasing Accuracy-Conserving (SIAC) filtering. In Kirby et al. [KBH15], pages 87–102. ISBN 3-319-19799-1, 3-319-19800-9 (e-book). LCCN QA377. URL http://link.springer.com/chapter/10.1007/978-3-319-19800-2_6/.

Roos:2003:DGF

- [RZ03] Hans-Görg Roos and Helena Zarin. The discontinuous Galerkin finite element method for singularly perturbed problems. In Bänsch [Bän03], pages 246–267. CODEN

LNCSA6. ISBN 3-642-62406-5 (print), 3-642-19014-6 (e-book). ISSN 1439-7358 (print), 2197-7100 (electronic). LCCN ????. URL http://link.springer.com/content/pdf/10.1007/978-3-642-19014-8_12.

Straub:1999:ETS

- [SA99] John E. Straub and Ioan Andricioaei. Exploiting Tsallis statistics. In Deuffhard et al. [DHL⁺99], pages 197–211. CODEN LNCSA6. ISBN 3-540-63242-5 (print), 3-642-58360-1 (e-book). ISSN 1439-7358 (print), 2197-7100 (electronic). LCCN QP517.M65 I56 1999. URL http://link.springer.com/chapter/10.1007/978-3-642-58360-5_11/.

Sorensen:2005:MRS

- [SA05] Danny C. Sorensen and Athanasios C. Antoulas. On model reduction of structured systems. In Benner et al. [BMS05c], pages 117–130. CODEN LNCSA6. ISBN 3-540-24545-6 (print), 3-540-27909-1 (e-book). ISSN 1439-7358 (print), 2197-7100 (electronic). LCCN TA347.C68 D56 2005. URL http://link.springer.com/content/pdf/10.1007/3-540-27909-1_4.

Sarigol:2009:CUH

- [SA09] Ebru Sarigöl and Nafiz Alemdaroglu. Computation of unsteady hovering flapping motion in parallel environment. In Tuncer et al. [TGEM09], pages 473–480. CODEN LNCSA6. ISBN 3-540-92743-3 (print), 3-540-92744-1 (e-book). ISSN 1439-7358 (print), 2197-7100 (electronic). LCCN ????. URL http://link.springer.com/content/pdf/10.1007/978-3-540-92744-0_59. Parallel CFD 2007 was held in Antalya, Turkey, from May 21 to 24, 2007.

Saad:2007:SCP

- [Saa07] Yousef Saad. Schur complement preconditioners for distributed general sparse linear systems. In Widlund and Keyes [WK07], pages 127–138. CODEN LNCSA6. ISBN 3-540-34468-3 (print), 3-540-34469-1 (e-book). ISSN 1439-7358 (print), 2197-7100 (electronic). LCCN QA402.2 .I55 2005. URL http://link.springer.com/content/pdf/10.1007/978-3-540-34469-8_11. Proceedings of the *Sixteenth International Conference on Domain Decomposition Methods*, New York City, January 11–15, 2005.

Shagaliev:2006:DAT

- [SAB⁺06] R. M. Shagaliev, A. V. Alekseev, I. M. Beliakov, A. V. Gichuk, and A. A. Nuzhdin. Different algorithms of 2D transport equation parallelization on random non-orthogonal grids. In Graziani [Gra06], pages 487–496. CODEN LNCSA6. ISBN 3-540-28122-3 (print), 3-540-28125-8 (e-book). ISSN 1439-7358 (print), 2197-7100 (electronic). LCCN MLCM 2006/40189 (Q); QC793.3.T7 C66 2006. URL http://link.springer.com/content/pdf/10.1007/3-540-28125-8_24.

Shreif:2009:EVU

- [SACP09] Z. Shreif, P. Adhangale, S. Cheluvaraja, and R. Perera. Enveloped viruses understood via multiscale simulation: computer-aided vaccine design. In Yip and Diaz de la Rubia [YD09], pages 363–380. CODEN LNCSA6. ISBN 1-4020-9740-9 (print), 1-4020-9741-7 (e-book). ISSN 1439-7358 (print), 2197-7100 (electronic). LCCN ????? URL http://link.springer.com/content/pdf/10.1007/978-1-4020-9741-6_19. Previously published in *Scientific Modeling and Simulations*, Volume 15, Issues 1–3, 2008.

Shagaliev:2006:FDM

- [SAG⁺06] R. M. Shagaliev, A. V. Alekseyev, A. V. Gichuk, A. A. Nuzhdin, and N. P. Pleteneva. Finite-difference methods implemented in SATURN complex to solve multidimensional time-dependent transport problems. In Graziani [Gra06], pages 327–352. CODEN LNCSA6. ISBN 3-540-28122-3 (print), 3-540-28125-8 (e-book). ISSN 1439-7358 (print), 2197-7100 (electronic). LCCN MLCM 2006/40189 (Q); QC793.3.T7 C66 2006. URL http://link.springer.com/content/pdf/10.1007/3-540-28125-8_15.

Sahu:2009:PCS

- [Sah09] Jubaraj Sahu. Parallel CFD simulations of unsteady control maneuver aerodynamics. In Tuncer et al. [TGEM09], pages 417–424. CODEN LNCSA6. ISBN 3-540-92743-3 (print), 3-540-92744-1 (e-book). ISSN 1439-7358 (print), 2197-7100 (electronic). LCCN ????? URL http://link.springer.com/content/pdf/10.1007/978-3-540-92744-0_52. Parallel CFD 2007 was held in Antalya, Turkey, from May 21 to 24, 2007.

Sunderland:2011:TPC

- [SAM⁺11] A. G. Sunderland, M. Ashworth, C. Moulinec, N. Li, J. Uribe, and Y. Fournier. Towards petascale computing with parallel CFD codes. In Tromeur-Dervout et al. [TDBEE11], pages 309–320. CODEN LNCSA6. ISBN 3-642-14437-3 (print), 3-642-14438-1 (e-book). ISSN 1439-7358 (print), 2197-7100 (electronic). LCCN ???? URL http://link.springer.com/content/pdf/10.1007/978-3-642-14438-7_33. Proceedings of the twentieth meeting, Parallel CFD 2008, held May 19–22, 2008 in Lyon, France.

Sandak:2002:ECA

- [San02] B. Sandak. Efficient computational algorithms for fast electrostatics and molecular docking. In Schlick and Gan [SG02], pages 411–441. CODEN LNCSA6. ISBN 3-540-43756-8 (print), 3-642-56080-6 (e-book). ISSN 1439-7358 (print), 2197-7100 (electronic). LCCN QP517.M3 A384 2000. URL http://link.springer.com/content/pdf/10.1007/978-3-642-56080-4_17.

Sandu:2008:RAD

- [San08] Adrian Sandu. Reverse automatic differentiation of linear multistep methods. In Bischof et al. [BBH⁺08], pages 1–12. CODEN LNCSA6. ISBN 3-540-68935-4 (print), 3-540-68942-7 (e-book). ISSN 1439-7358 (print), 2197-7100 (electronic). LCCN QA304 .I58 2008. URL http://link.springer.com/content/pdf/10.1007/978-3-540-68942-3_1.

Sardella:2000:CCD

- [Sar00] Mirko Sardella. Coupling continuous and discontinuous techniques: an adaptive approach. In Cockburn et al. [CKS00b], pages 413–418. CODEN LNCSA6. ISBN 3-540-66787-3, 3-642-64098-2 (print), 3-642-59721-1 (e-book). ISSN 1439-7358 (print), 2197-7100 (electronic). LCCN TA347.F5 D57 2000. URL http://link.springer.com/chapter/10.1007/978-3-642-59721-3_41/. Papers from the first international symposium on DGM Newport, Rhode Island, USA, May 24–26, 1999.

Sarkis:2002:PUC

- [Sar02] Marcus Sarkis. Partition of unity coarse spaces and Schwarz methods with harmonic overlap. In Pavarino and Toselli

[PT02], pages 77–94. CODEN LNCSA6. ISBN 3-540-43413-5 (print), 3-642-56118-7 (e-book). ISSN 1439-7358 (print), 2197-7100 (electronic). LCCN QA402.2 .R43 2002. URL http://link.springer.com/content/pdf/10.1007/978-3-642-56118-4_5. Papers presented at the Workshop on Domain Decomposition held at ETH, Zurich, June 7–8, 2001.

Schuette:1999:APL

- [SB99a] C. Schuette and F. A. Bornemann. Approximation properties and limits of the quantum-classical molecular dynamics model. In Deuffhard et al. [DHL⁺99], pages 380–395. CODEN LNCSA6. ISBN 3-540-63242-5 (print), 3-642-58360-1 (e-book). ISSN 1439-7358 (print), 2197-7100 (electronic). LCCN QP517.M65 I56 1999. URL <http://link.springer.com/book/10.1007/978-3-642-58360-5>; <http://www.springerlink.com/content/978-3-642-58360-5>.

Schutte:1999:APL

- [SB99b] Christof Schütte and Folkmar A. Bornemann. Approximation properties and limits of the quantum-classical molecular dynamics model. In Deuffhard et al. [DHL⁺99], pages 380–395. CODEN LNCSA6. ISBN 3-540-63242-5 (print), 3-642-58360-1 (e-book). ISSN 1439-7358 (print), 2197-7100 (electronic). LCCN QP517.M65 I56 1999. URL http://link.springer.com/chapter/10.1007/978-3-642-58360-5_21/.

Shao:2012:RT

- [SBC⁺12] Haibing Shao, Sebastian Bauer, Florian Centler, Georg Kosakowski, and Shuang Jin. Reactive transport. In Kolditz et al. [KGSW12], pages 313–344. CODEN LNCSA6. ISBN 3-642-27176-6 (print), 3-642-27177-4 (e-book). ISSN 1439-7358 (print), 2197-7100 (electronic). LCCN ???? URL http://link.springer.com/content/pdf/10.1007/978-3-642-27177-9_15.

Szoke:2006:AER

- [SBMD06] Abraham Szöke, Eugene D. Brooks III, Michael Scott McKinley, and Frank C. Daffin. Accurate and efficient radiation transport in optically thick media — by means of the symbolic implicit Monte Carlo method in the difference formulation. In Graziani [Gra06], pages 255–282. CODEN LNCSA6. ISBN 3-540-28122-3 (print), 3-540-28125-8 (e-book). ISSN 1439-7358

(print), 2197-7100 (electronic). LCCN MLCM 2006/40189 (Q); QC793.3.T7 C66 2006. URL http://link.springer.com/content/pdf/10.1007/3-540-28125-8_12.

Simkins:2008:FSR

- [SC08] Daniel C. Simkins, Jr. and Nathan Collier. A framework for studying the RKEM representation of discrete point sets. In Griebel and Schweitzer [GS08d], pages 301–314. CODEN LNCSA6. ISBN 3-540-79993-1 (print), 3-540-79994-X (e-book). ISSN 1439-7358 (print), 2197-7100 (electronic). LCCN ??? URL http://link.springer.com/content/pdf/10.1007/978-3-540-79994-8_17. Fourth International Workshop on Meshfree Methods for Partial Differential Equations held from September 17 to September 20, 2007 in Bonn, Germany.

Simkins:2013:MML

- [SC13] Daniel C. Simkins, Jr. and Nathan Collier. Meshfree modeling in laminated composites. In Griebel and Schweitzer [GS13b], pages 221–233. CODEN LNCSA6. ISBN 3-642-32978-0 (print), 3-642-32979-9 (e-book). ISSN 1439-7358 (print), 2197-7100 (electronic). LCCN QA297 .I58 2011. URL http://link.springer.com/content/pdf/10.1007/978-3-642-32979-1_14. Proceedings of the Sixth International Workshop on Meshfree Methods for Partial Differential Equations, October 4–6, 2011, Bonn, Germany.

St-Cyr:2009:DAA

- [SCG09] Amik St-Cyr and Martin J. Gander. A discovery algorithm for the algebraic construction of optimized Schwarz preconditioners. In Bercovier et al. [BGKW09], pages 355–362. CODEN LNCSA6. ISBN 3-642-02676-1 (print), 3-642-02677-X (e-book). ISSN 1439-7358 (print), 2197-7100 (electronic). LCCN QA402.2 .I584 2009. URL http://link.springer.com/content/pdf/10.1007/978-3-642-02677-5_40.

St-Cyr:2007:ORA

- [SCGT07] Amik St-Cyr, Martin J. Gander, and Stephen J. Thomas. Optimized restricted additive Schwarz methods. In Widlund and Keyes [WK07], pages 213–220. CODEN LNCSA6. ISBN 3-540-34468-3 (print), 3-540-34469-1 (e-book). ISSN 1439-7358 (print), 2197-7100 (electronic). LCCN QA402.2 .I55

2005. URL http://link.springer.com/content/pdf/10.1007/978-3-540-34469-8_22. Proceedings of the *Sixteenth International Conference on Domain Decomposition Methods*, New York City, January 11–15, 2005.

Schoberl:1998:RMP

- [Sch98] Joachim Schöberl. Robust multigrid preconditioning for parameter-dependent problems I: The Stokes-type case. In Hackbusch and Wittum [HW98], pages 260–275. CODEN LNCSA6. ISBN 3-540-63133-X (softcover), 3-642-58734-8 (e-book). ISSN 1439-7358 (print), 2197-7100 (electronic). LCCN QA377 .E94 1996. URL http://link.springer.com/chapter/10.1007/978-3-642-58734-4_15/.

Schlick:1999:SFS

- [Sch99a] Tamar Schlick. Some failures and successes of long-timestep approaches to biomolecular simulations. In Deuffhard et al. [DHL⁺99], pages 227–262. CODEN LNCSA6. ISBN 3-540-63242-5 (print), 3-642-58360-1 (e-book). ISSN 1439-7358 (print), 2197-7100 (electronic). LCCN QP517.M65 I56 1999. URL http://link.springer.com/chapter/10.1007/978-3-642-58360-5_13/.

Schwab:1999:FFF

- [Sch99b] Christoph Schwab. *hp*-FEM for fluid flow simulation. In *High order methods for computational physics* [BD99], pages 325–438 (?). CODEN LNCSA6. ISBN 3-540-65893-9 (paperback). ISSN 1439-7358 (print), 2197-7100 (electronic). LCCN QA911 .H46 1999.

Schwab:2002:TSF

- [Sch02] Christoph Schwab. Two scale FEM for homogenization problems. In Babuška et al. [BCM02], pages 91–107. CODEN LNCSA6. ISBN 3-540-42399-0 (print), 3-642-56288-4 (e-book). ISSN 1439-7358 (print), 2197-7100 (electronic). LCCN QA808.2 .I59 2000. URL http://link.springer.com/content/pdf/10.1007/978-3-642-56288-4_7.

Schmidt:2003:MMF

- [Sch03a] Alfred Schmidt. A multi-mesh finite element method for phase-field simulations. In Emmerich et al. [ENS03], page ?? CODEN LNCSA6. ISBN 3-540-40367-1. ISSN 1439-7358 (print), 2197-7100 (electronic). LCCN QC173.4.I57 I57 2003.

URL <http://www.loc.gov/catdir/enhancements/fy0818/2003060231-d.html>. Papers from the workshop on “Computational Physics of Transport and Interfacial Dynamics”, Dresden, February 25–March 8, 2002.

Schmitz:2003:TDI

- [Sch03b] G. J. Schmitz. Thermodynamics of diffuse interfaces. In Emerich et al. [ENS03], page ?? CODEN LNCSA6. ISBN 3-540-40367-1. ISSN 1439-7358 (print), 2197-7100 (electronic). LCCN QC173.4.I57 I57 2003. URL <http://www.loc.gov/catdir/enhancements/fy0818/2003060231-d.html>. Papers from the workshop on “Computational Physics of Transport and Interfacial Dynamics”, Dresden, February 25–March 8, 2002.

Schweitzer:2003:CR

- [Sch03c] Marc Alexander Schweitzer. Concluding remarks. In *A Parallel Multilevel Partition of Unity Method for Elliptic Partial Differential Equations* [Sch03g], pages 155–159. CODEN LNCSA6. ISBN 3-540-00351-7 (print), 3-642-59325-9 (e-book). ISSN 1439-7358 (print), 2197-7100 (electronic). LCCN QA377 .S395 2003. URL http://link.springer.com/content/pdf/10.1007/978-3-642-59325-3_7.

Schweitzer:2003:FM

- [Sch03d] Marc Alexander Schweitzer. Front matter. In *A Parallel Multilevel Partition of Unity Method for Elliptic Partial Differential Equations* [Sch03g], pages i–v. CODEN LNCSA6. ISBN 3-540-00351-7 (print), 3-642-59325-9 (e-book). ISSN 1439-7358 (print), 2197-7100 (electronic). LCCN QA377 .S395 2003. URL <http://link.springer.com/content/pdf/bfm:978-3-642-59325-3/1>.

Schweitzer:2003:I

- [Sch03e] Marc Alexander Schweitzer. Introduction. In *A Parallel Multilevel Partition of Unity Method for Elliptic Partial Differential Equations* [Sch03g], pages 1–11. CODEN LNCSA6. ISBN 3-540-00351-7 (print), 3-642-59325-9 (e-book). ISSN 1439-7358 (print), 2197-7100 (electronic). LCCN QA377 .S395 2003. URL http://link.springer.com/content/pdf/10.1007/978-3-642-59325-3_1.

Schweitzer:2003:MSR

- [Sch03f] Marc Alexander Schweitzer. Multilevel solution of the resulting linear system. In *A Parallel Multilevel Partition of Unity Method for Elliptic Partial Differential Equations* [Sch03g], pages 51–96. CODEN LNCSA6. ISBN 3-540-00351-7 (print), 3-642-59325-9 (e-book). ISSN 1439-7358 (print), 2197-7100 (electronic). LCCN QA377 .S395 2003. URL http://link.springer.com/content/pdf/10.1007/978-3-642-59325-3_4.

Schweitzer:2003:PMP

- [Sch03g] Marc Alexander Schweitzer. *A Parallel Multilevel Partition of Unity Method for Elliptic Partial Differential Equations*, volume 29 of *Lecture Notes in Computational Science and Engineering*. Springer-Verlag Inc., New York, NY, USA, 2003. CODEN LNCSA6. ISBN 3-540-00351-7 (print), 3-642-59325-9 (e-book). ISSN 1439-7358 (print), 2197-7100 (electronic). 194 pp. LCCN QA377 .S395 2003. URL <http://link.springer.com/book/10.1007/978-3-642-59325-3>; <http://www.springerlink.com/content/978-3-642-59325-3>.

Schweitzer:2003:PID

- [Sch03h] Marc Alexander Schweitzer. Parallelization and implementation details. In *A Parallel Multilevel Partition of Unity Method for Elliptic Partial Differential Equations* [Sch03g], pages 127–153. CODEN LNCSA6. ISBN 3-540-00351-7 (print), 3-642-59325-9 (e-book). ISSN 1439-7358 (print), 2197-7100 (electronic). LCCN QA377 .S395 2003. URL http://link.springer.com/content/pdf/10.1007/978-3-642-59325-3_6.

Schweitzer:2003:PUM

- [Sch03i] Marc Alexander Schweitzer. Partition of unity method. In *A Parallel Multilevel Partition of Unity Method for Elliptic Partial Differential Equations* [Sch03g], pages 13–22. CODEN LNCSA6. ISBN 3-540-00351-7 (print), 3-642-59325-9 (e-book). ISSN 1439-7358 (print), 2197-7100 (electronic). LCCN QA377 .S395 2003. URL http://link.springer.com/content/pdf/10.1007/978-3-642-59325-3_2.

Schweitzer:2003:TEE

- [Sch03j] Marc Alexander Schweitzer. Treatment of elliptic equations. In *A Parallel Multilevel Partition of Unity Method for Elliptic Partial Differential Equations* [Sch03g], pages 23–49. CODEN LNCSA6. ISBN 3-540-00351-7 (print), 3-642-59325-9 (e-book). ISSN 1439-7358 (print), 2197-7100 (electronic). LCCN QA377 .S395 2003. URL http://link.springer.com/content/pdf/10.1007/978-3-642-59325-3_3.

Schweitzer:2003:TPU

- [Sch03k] Marc Alexander Schweitzer. Tree partition of unity method. In *A Parallel Multilevel Partition of Unity Method for Elliptic Partial Differential Equations* [Sch03g], pages 97–126. CODEN LNCSA6. ISBN 3-540-00351-7 (print), 3-642-59325-9 (e-book). ISSN 1439-7358 (print), 2197-7100 (electronic). LCCN QA377 .S395 2003. URL http://link.springer.com/content/pdf/10.1007/978-3-642-59325-3_5.

Scherer:2005:WNE

- [Sch05] Karl Scherer. Weighted norm-equivalences for preconditioning. In Kornhuber et al. [KHP⁺05], pages 405–412. CODEN LNCSA6. ISBN 3-540-22523-4 (print), 3-540-26825-1 (e-book). ISSN 1439-7358 (print), 2197-7100 (electronic). LCCN QA402.2 .I55 2003. URL http://link.springer.com/content/pdf/10.1007/3-540-26825-1_41. Papers from the 15th International Conference on Domain Decomposition, Freie Universität Berlin (FU), Berlin, Germany, July 21–25, 2003.

Scherer:2008:RNE

- [Sch08a] Karl Scherer. Robust norm equivalencies and preconditioning. In Langer et al. [LDK⁺08], pages 373–380. CODEN LNCSA6. ISBN 3-540-75198-X (print), 3-540-75199-8 (e-book). ISSN 1439-7358 (print), 2197-7100 (electronic). LCCN QA402.2 .I55 2006. URL http://link.springer.com/content/pdf/10.1007/978-3-540-75199-1_46. 17th International Conference on Domain Decomposition Methods held at St. Wolfgang/Strobl, Austria, July 3–7, 2006.

Schweitzer:2008:PPU

- [Sch08b] Marc Alexander Schweitzer. A particle-partition of unity method Part VIII: Hierarchical enrichment. In Griebel and

Schweitzer [GS08d], pages 277–299. CODEN LNCSA6. ISBN 3-540-79993-1 (print), 3-540-79994-X (e-book). ISSN 1439-7358 (print), 2197-7100 (electronic). LCCN ???? URL http://link.springer.com/content/pdf/10.1007/978-3-540-79994-8_16. Fourth International Workshop on Meshfree Methods for Partial Differential Equations held from September 17 to September 20, 2007 in Bonn, Germany.

Schiela:2009:EMF

- [Sch09] Anton Schiela. An extended mathematical framework for barrier methods in function space. In Bercovier et al. [BGKW09], pages 201–208. CODEN LNCSA6. ISBN 3-642-02676-1 (print), 3-642-02677-X (e-book). ISSN 1439-7358 (print), 2197-7100 (electronic). LCCN QA402.2 .I584 2009. URL http://link.springer.com/content/pdf/10.1007/978-3-642-02677-5_21.

Schroder:2011:CAH

- [Sch11a] Andreas Schröder. Constrained approximation in hp-FEM: Unsymmetric subdivisions and multi-level hanging nodes. In Hesthaven and Rønquist [HR11], pages 317–325. CODEN LNCSA6. ISBN 3-642-15336-4 (print), 3-642-15337-2 (e-book). ISSN 1439-7358 (print), 2197-7100 (electronic). LCCN ???? URL http://link.springer.com/content/pdf/10.1007/978-3-642-15337-2_29.

Schweitzer:2011:TGD

- [Sch11b] Marc Alexander Schweitzer. Treatment of general domains in two space dimensions in a partition of unity method. In Griebel and Schweitzer [GS11c], pages 27–49. CODEN LNCSA6. ISBN 3-642-16228-2 (print), 3-642-16229-0 (e-book). ISSN 1439-7358 (print), 2197-7100 (electronic). LCCN ???? URL http://link.springer.com/content/pdf/10.1007/978-3-642-16229-9_2. Proceedings of the Fifth International Workshop on Meshfree Methods for Partial Differential Equations held from August 17 to August 19, 2009 in Bonn, Germany.

Schroll:2012:ACD

- [Sch12] Hans Joachim Schroll. Automatic calibration of depositional models. In Logg et al. [LMW12a], pages 601–609. CODEN LNCSA6. ISBN 3-642-23098-9 (print), 3-642-23099-7 (e-book). ISSN 1439-7358 (print), 2197-7100 (electronic). LCCN

???? URL http://link.springer.com/content/pdf/10.1007/978-3-642-23099-8_32. The software developed by the FEniCS Project is free for all to use and modify (licensed under the GNU (L)GPL), and so is this book.

Scheichl:2013:RCM

- [Sch13a] Robert Scheichl. Robust coarsening in multiscale PDEs. In Bank [Ban13], pages 51–62. ISBN 3-642-35274-X (hardcover), 3-642-35275-8 (e-book). ISSN 1439-7358 (print), 2197-7100 (electronic). LCCN QA402.2 .I58 2011. URL http://link.springer.com/chapter/10.1007/978-3-642-35275-1_5/.

Schweitzer:2013:MPU

- [Sch13b] Marc Alexander Schweitzer. Multilevel partition of unity method for elliptic problems with strongly discontinuous coefficients. In Griebel and Schweitzer [GS13b], pages 93–109. CODEN LNCSA6. ISBN 3-642-32978-0 (print), 3-642-32979-9 (e-book). ISSN 1439-7358 (print), 2197-7100 (electronic). LCCN QA297 .I58 2011. URL http://link.springer.com/content/pdf/10.1007/978-3-642-32979-1_6. Proceedings of the Sixth International Workshop on Meshfree Methods for Partial Differential Equations, October 4–6, 2011, Bonn, Germany.

Schillinger:2013:RFC

- [SCMR13] Dominik Schillinger, Quanji Cai, Ralf-Peter Mundani, and Ernst Rank. A review of the finite cell method for nonlinear structural analysis of complex CAD and image-based geometric models. In Bader et al. [BBW13], pages 1–23. ISBN 3-642-38761-6, 3-642-38762-4 (e-book). ISSN 1439-7358 (print), 2197-7100 (electronic). LCCN ???? URL http://link.springer.com/chapter/10.1007/978-3-642-38762-3_1/.

Scott:2006:NLR

- [Sco06] Howard A. Scott. Non-LTE radiation transport in high radiation plasmas. In Graziani [Gra06], pages 307–325. CODEN LNCSA6. ISBN 3-540-28122-3 (print), 3-540-28125-8 (e-book). ISSN 1439-7358 (print), 2197-7100 (electronic). LCCN MLCM 2006/40189 (Q); QC793.3.T7 C66 2006. URL http://link.springer.com/content/pdf/10.1007/3-540-28125-8_14.

St-Cyr:2009:OSP

- [SCRK09] Amik St-Cyr, Duane Rosenberg, and Sang Dong Kim. Optimized Schwarz preconditioning for SEM based magnetohydrodynamics. In Bercovier et al. [BGKW09], pages 209–216. CODEN LNCSA6. ISBN 3-642-02676-1 (print), 3-642-02677-X (e-book). ISSN 1439-7358 (print), 2197-7100 (electronic). LCCN QA402.2 .I584 2009. URL http://link.springer.com/content/pdf/10.1007/978-3-642-02677-5_22.

Sornette:2008:GSP

- [SDKI08] D. Sornette, A. B. Davis, J. R. Kamm, and K. Ide. A general strategy for physics-based model validation illustrated with earthquake phenomenology, atmospheric radiative transfer, and computational fluid dynamics. In Graziani [Gra08b], pages 19–73. CODEN LNCSA6. ISBN 3-540-77361-4 (print), 3-540-77362-2 (e-book). ISSN 1439-7358 (print), 2197-7100 (electronic). LCCN ???? URL http://link.springer.com/content/pdf/10.1007/978-3-540-77362-7_2. Proceedings of the 2006 Computational Methods in Transport (CMTW) conference.

Steelant:1998:AME

- [SDP98] J. Steelant, E. Dick, and S. Pattijn. Analysis of multigrid efficiency for viscous low Mach number flows. In Hackbusch and Wittum [HW98], pages 289–305. CODEN LNCSA6. ISBN 3-540-63133-X (softcover), 3-642-58734-8 (e-book). ISSN 1439-7358 (print), 2197-7100 (electronic). LCCN QA377 .E94 1996. URL http://link.springer.com/chapter/10.1007/978-3-642-58734-4_17/.

Sieber:2002:NSW

- [SDS02] R. Sieber, P. Droll, and M. Schäfer. Numerical simulation of wind loads on antenna structures. In Breuer et al. [BDZ02], pages 71–80. CODEN LNCSA6. ISBN 3-540-42946-8 (print), 3-642-55919-0 (e-book). ISSN 1439-7358 (print), 2197-7100 (electronic). LCCN Q183.9 .I58 2001. URL http://link.springer.com/content/pdf/10.1007/978-3-642-55919-8_8.

Solin:2001:IHT

- [SDSU01] P. Solín, I. Dolezel, M. Skopek, and B. Ulrych. Induction heating of thin slabs in nonmagnetic media. In van Rienen et al. [vRGH01], pages 379–386. CODEN LNCSA6.

ISBN 3-540-42173-4 (softcover), 3-642-56470-4 (e-book). ISSN 1439-7358 (print), 2197-7100 (electronic). LCCN TK5 .S35 2001. URL http://link.springer.com/content/pdf/10.1007/978-3-642-56470-3_38. Selected contributions presented at the 3rd International Workshop on Scientific Computing in Electrical Engineering.

Stewart:2003:SFD

- [SE03] James R. Stewart and H. Carter Edwards. The SIERRA framework for developing advanced parallel mechanics applications. In Biegler et al. [BGHvBW03a], pages 301–315. CODEN LNCSA6. ISBN 3-540-05045-0 (print), 3-642-55508-X (e-book). ISSN 1439-7358 (print), 2197-7100 (electronic). LCCN QA402.5 .L358 2003. URL http://link.springer.com/content/pdf/10.1007/978-3-642-55508-4_18.

Sengil:2009:IPD

- [SE09] N Sengil and F. O. Edis. Implementation of parallel DSMC method to adiabatic piston problem. In Tuncer et al. [TGEM09], pages 75–82. CODEN LNCSA6. ISBN 3-540-92743-3 (print), 3-540-92744-1 (e-book). ISSN 1439-7358 (print), 2197-7100 (electronic). LCCN ???? URL http://link.springer.com/content/pdf/10.1007/978-3-540-92744-0_9. Parallel CFD 2007 was held in Antalya, Turkey, from May 21 to 24, 2007.

Seibold:2007:MMM

- [Sei07] Benjamin Seibold. Multigrid and M-matrices in the finite pointset method for incompressible flows. In Griebel and Schweitzer [GS07b], pages 219–234. CODEN LNCSA6. ISBN 3-540-46214-7 (print), 3-540-46222-8 (e-book). ISSN 1439-7358 (print), 2197-7100 (electronic). LCCN QA377 .M45 2005. URL http://link.springer.com/content/pdf/10.1007/978-3-540-46222-4_13. Third international workshop on Meshfree Methods for Partial Differential Equations held from September 12 to September 15, 2005 in Bonn, Germany.

Selim:2012:AFE

- [Sel12] Kristoffer Selim. An adaptive finite element solver for fluid-structure interaction problems. In Logg et al. [LMW12a], pages 553–569. CODEN LNCSA6. ISBN 3-642-23098-9 (print), 3-642-23099-7 (e-book). ISSN 1439-7358 (print), 2197-7100 (electronic). LCCN ???? URL http://link.springer.com/content/pdf/10.1007/978-3-642-23098-9_33.

com/content/pdf/10.1007/978-3-642-23099-8_29. The software developed by the FEniCS Project is free for all to use and modify (licensed under the GNU (L)GPL), and so is this book.

Scholz:2008:NPC

- [SF08] Matthias Scholz and Martin Fraunholz. Nonlinear principal component analysis: Neural network models and applications. In Gorban et al. [GKWZ08], pages 44–67. CODEN LNCSA6. ISBN 3-540-73749-9 (print), 3-540-73750-2 (e-book). ISSN 1439-7358 (print), 2197-7100 (electronic). LCCN QA278.5 .P75 2008. URL http://link.springer.com/content/pdf/10.1007/978-3-540-73750-6_2.

Schutte:2005:UCT

- [SFMF05] Christof Schütte, Ralf Forster, Eike Meerbach, and Alexander Fischer. Uncoupling-coupling techniques for metastable dynamical systems. In Kornhuber et al. [KHP⁺05], pages 115–129. CODEN LNCSA6. ISBN 3-540-22523-4 (print), 3-540-26825-1 (e-book). ISSN 1439-7358 (print), 2197-7100 (electronic). LCCN QA402.2 .I55 2003. URL http://link.springer.com/content/pdf/10.1007/3-540-26825-1_8. Papers from the 15th International Conference on Domain Decomposition, Freie Universität Berlin (FU), Berlin, Germany, July 21–25, 2003.

Schlick:2002:CMM

- [SG02] Tamar Schlick and Hin Hark Gan, editors. *Computational Methods for Macromolecules: Challenges and Applications: Proceedings of the 3rd International Workshop on Algorithms for Macromolecular Modeling, New York, October 12–14, 2000*, volume 24 of *Lecture Notes in Computational Science and Engineering*. Springer-Verlag Inc., New York, NY, USA, 2002. CODEN LNCSA6. ISBN 3-540-43756-8 (print), 3-642-56080-6 (e-book). ISSN 1439-7358 (print), 2197-7100 (electronic). LCCN QP517.M3 A384 2000. URL <http://link.springer.com/book/10.1007/978-3-642-56080-4>; <http://www.springerlink.com/content/978-3-642-56080-4>.

Sternberg:2006:RSR

- [SG06] Julia Sternberg and Andreas Griewank. Reduction of storage requirement by checkpointing for time-dependent

optimal control problems in ODEs. In Bücker et al. [BCH⁺06], pages 99–110. CODEN LNCSA6. ISBN 3-540-28403-6 (print), 3-540-28438-9 (e-book). ISSN 1439-7358 (print), 2197-7100 (electronic). LCCN QA304 .I58 2006. URL http://link.springer.com/content/pdf/10.1007/3-540-28438-9_9. Proceedings of the Fourth International Conference on Automatic Differentiation, July 20–23, Chicago, Illinois.

Sukhinov:2009:MPD

- [SG09] Alexander I. Sukhinov and Valeriy K. Gadelshin. 3D model of pollution distribution in city air and its parallel realization. In Tuncer et al. [TGEM09], pages 201–207. CODEN LNCSA6. ISBN 3-540-92743-3 (print), 3-540-92744-1 (e-book). ISSN 1439-7358 (print), 2197-7100 (electronic). LCCN ????. URL http://link.springer.com/content/pdf/10.1007/978-3-540-92744-0_25. Parallel CFD 2007 was held in Antalya, Turkey, from May 21 to 24, 2007.

Schulz:2014:TCT

- [SG14] Hannes Schulz and Andreas Görling. Toward a comprehensive treatment of temperature in electronic structure calculations: Non-zero-temperature Hartree–Fock and exact-exchange Kohn–Sham methods. In Graziani et al. [GDRT14b], pages 87–121. ISBN 3-319-04912-7. ISSN 1439-7358 (print), 2197-7100 (electronic). LCCN QA71-90. URL http://link.springer.com/chapter/10.1007/978-3-319-04912-0_4/.

Shao:2007:ASS

- [SGC07] L. Shao, F. S. Godefert, and C. Cambon. Anisotropic subgrid-scale modelling: Comparison of LES with high resolution DNS and statistical theory for rapidly rotating turbulence. In Kassinos et al. [KLIM07], pages 77–88. CODEN LNCSA6. ISBN 3-540-34233-8 (print), 3-540-34234-6 (e-book). ISSN 1439-7358 (print), 2197-7100 (electronic). LCCN TA357.5.T87 C66 2007. URL http://link.springer.com/content/pdf/10.1007/978-3-540-34234-2_6. Proceedings of the symposium on *Complex Effects in Large Eddy Simulation* held in Lemesos (Limassol), Cyprus, September 21–24, 2005.

Staffelbach:2007:HPL

- [SGP07] G. Staffelbach, L. Y. M. Gicquel, and T. Poinsot. Highly parallel large eddy simulations of multiburner configurations in

industrial gas turbines. In Kassinos et al. [KLIM07], pages 325–336. CODEN LNCSA6. ISBN 3-540-34233-8 (print), 3-540-34234-6 (e-book). ISSN 1439-7358 (print), 2197-7100 (electronic). LCCN TA357.5.T87 C66 2007. URL http://link.springer.com/content/pdf/10.1007/978-3-540-34234-2_23. Proceedings of the symposium on *Complex Effects in Large Eddy Simulation* held in Lemesos (Limassol), Cyprus, September 21–24, 2005.

Sahin:2009:PTN

- [SGT09] Pinar Sahin, Emre Gürdamar, and Erhan Tarhan. Parallel turbulent Navier–Stokes solutions of wing alone geometries for drag prediction. In Tuncer et al. [TGEM09], pages 227–235. CODEN LNCSA6. ISBN 3-540-92743-3 (print), 3-540-92744-1 (e-book). ISSN 1439-7358 (print), 2197-7100 (electronic). LCCN ???? URL http://link.springer.com/content/pdf/10.1007/978-3-540-92744-0_28. Parallel CFD 2007 was held in Antalya, Turkey, from May 21 to 24, 2007.

Siili:2003:AFE

- [SH03] Endre Siili and Paul Houston. Adaptive finite element approximation of hyperbolic problems. In Barth and Deconinck [BD03], page ?? CODEN LNCSA6. ISBN 3-540-43758-4. ISSN 1439-7358 (print), 2197-7100 (electronic). LCCN TA357 .E78 2003. URL <http://www.loc.gov/catdir/enhancements/fy0815/2002030472-d.html>; <http://www.loc.gov/catdir/toc/fy034/2002030472.html>.

Svacek:2011:NAF

- [SH11a] P. Sváček and J. Horáček. Numerical approximation of flow induced vibration of vocal folds. In Clavero et al. [CGL11], pages 227–234. CODEN LNCSA6. ISBN 3-642-19664-0 (print), 3-642-19665-9 (e-book). ISSN 1439-7358 (print), 2197-7100 (electronic). LCCN ???? URL http://link.springer.com/content/pdf/10.1007/978-3-642-19665-2_24. Selected papers from the proceedings of BAIL 2010 (Boundary and Interior Layers — Computational and Asymptotic Methods), held from 5 to 9 July 2010 at the University of Zaragoza, Spain.

Szederkenyi:2011:CRR

- [SH11b] Gábor Szederkényi and Katalin M. Hangos. Computing realizations of reaction kinetic networks with given proper-

ties. In Gorban and Roose [GR11b], pages 253–267. CODEN LNCSA6. ISBN 3-642-14940-5 (print), 3-642-14941-3 (e-book). ISSN 1439-7358 (print), 2197-7100 (electronic). LCCN QA401 .C67 2011. URL http://link.springer.com/content/pdf/10.1007/978-3-642-14941-2_13. Extended versions of selected talks given at the international research workshop: *Coping with Complexity: Model Reduction and Data Analysis*, Ambleside, Lake District, UK, August 31–September 4, 2009 in conjunction with the A4A6, the 6th *Conference on Algorithms for Approximation*.

Schliwa:2014:EPI

[SHB14]

Andrei Schliwa, Gerald Höning, and Dieter Bimberg. Electronic properties of III–V quantum dots. In Ehrhardt and Koprucki [EK14], pages 57–85. ISBN 3-319-01426-9, 3-319-01427-7 (e-book). ISSN 1439-7358 (print), 2197-7100 (electronic). LCCN QA71-90; QA300. URL http://link.springer.com/chapter/10.1007/978-3-319-01427-2_2/.

Sherwin:2000:DAC

[She00]

Spencer Sherwin. Dispersion analysis of the continuous and discontinuous Galerkin formulations. In Cockburn et al. [CKS00b], pages 425–431. CODEN LNCSA6. ISBN 3-540-66787-3, 3-642-64098-2 (print), 3-642-59721-1 (e-book). ISSN 1439-7358 (print), 2197-7100 (electronic). LCCN TA347.F5 D57 2000. URL http://link.springer.com/chapter/10.1007/978-3-642-59721-3_43/. Papers from the first international symposium on DGM Newport, Rhode Island, USA, May 24–26, 1999.

Schlundt:2001:ISS

[SHH⁺01]

R. Schlundt, G. Hebermehl, F.-K. Hubner, W. Heinrich, and H. Zscheile. Iterative solution of systems of linear equations in microwave circuits using a block quasi-minimal residual algorithm. In van Rienen et al. [vRGH01], pages 325–333. CODEN LNCSA6. ISBN 3-540-42173-4 (softcover), 3-642-56470-4 (e-book). ISSN 1439-7358 (print), 2197-7100 (electronic). LCCN TK5 .S35 2001. URL http://link.springer.com/content/pdf/10.1007/978-3-642-56470-3_34. Selected contributions presented at the 3rd International Workshop on Scientific Computing in Electrical Engineering.

Shishkin:2011:ISA

- [Shi11] G. I. Shishkin. Improved scheme on adapted locally-uniform meshes for a singularly perturbed parabolic convection-diffusion problem. In Clavero et al. [CGL11], pages 207–215. CODEN LNCSA6. ISBN 3-642-19664-0 (print), 3-642-19665-9 (e-book). ISSN 1439-7358 (print), 2197-7100 (electronic). LCCN ????. URL http://link.springer.com/content/pdf/10.1007/978-3-642-19665-2_22. Selected papers from the proceedings of BAIL 2010 (Boundary and Interior Layers — Computational and Asymptotic Methods), held from 5 to 9 July 2010 at the University of Zaragoza, Spain.

Sachs:1999:FTC

- [SHK99] G. Sachs, P. Hermle, and W. Klöckner. Flight tests with computer generated synthetic vision. In Bungartz et al. [BDZ99], pages 177–188. CODEN LNCSA6. ISBN 3-540-65730-4 (print), 3-642-60155-3 (e-book). ISSN 1439-7358 (print), 2197-7100 (electronic). LCCN Q183.9.I58 1998. URL http://link.springer.com/chapter/10.1007/978-3-642-60155-2_15/.

Stole-Hentschel:2012:CFF

- [SHLLM12] Susanne Støle-Hentschel, Svein Linge, Alf Emil Løvgren, and Kent-Andre Mardal. Cerebrospinal fluid flow. In Logg et al. [LMW12a], pages 455–470. CODEN LNCSA6. ISBN 3-642-23098-9 (print), 3-642-23099-7 (e-book). ISSN 1439-7358 (print), 2197-7100 (electronic). LCCN ????. URL http://link.springer.com/content/pdf/10.1007/978-3-642-23099-8_24. The software developed by the FEniCS Project is free for all to use and modify (licensed under the GNU (L)GPL), and so is this book.

Seeger:2006:CMG

- [SHM06] Steffen Seeger, Karl Heinz Hoffmann, and Arnd Meyer. The cumulant method for gas dynamics. In Hoffmann and Meyer [HM06], pages 335–360. CODEN LNCSA6. ISBN 3-540-33539-0 (print), 3-540-33541-2 (e-book). ISSN 1439-7358 (print), 2197-7100 (electronic). LCCN QA76.58 .P358 2006. URL http://link.springer.com/content/pdf/10.1007/3-540-33541-2_19.

Shu:1999:HOE

- [Shu99] Chi-Wang Shu. High order ENO and WENO schemes for computational fluid dynamics. In *High order methods for computational physics* [BD99], page ?? CODEN LNCSA6. ISBN 3-540-65893-9 (paperback). ISSN 1439-7358 (print), 2197-7100 (electronic). LCCN QA911 .H46 1999.

Schafer:2006:IPM

- [SHY06] Michael Schäfer, Marcus Heck, and Saim Yigit. An implicit partitioned method for the numerical simulation of fluid-structure interaction. In Bungartz and Schäfer [BS06], pages 171–194. CODEN LNCSA6. ISBN 3-540-34595-7 (print), 3-540-34596-5 (e-book). ISSN 1439-7358 (print), 2197-7100 (electronic). LCCN TA357.5.F58 F586 200. URL http://link.springer.com/content/pdf/10.1007/3-540-34596-5_8. Proceedings of a workshop on fluid-structure interactions held in Hohenwart, Germany, in October 2005.

Skeel:1999:FFT

- [SI99] Robert D. Skeel and Jesús A. Izaguirre. The five femtosecond time step barrier. In Deuffhard et al. [DHL⁺99], pages 318–331. CODEN LNCSA6. ISBN 3-540-63242-5 (print), 3-642-58360-1 (e-book). ISSN 1439-7358 (print), 2197-7100 (electronic). LCCN QP517.M65 I56 1999. URL http://link.springer.com/chapter/10.1007/978-3-642-58360-5_17/.

Siili:1999:PEA

- [Sii99] E. Siili. A posteriori error analysis and adaptivity for finite element approximations of hyperbolic problems. In Kröner et al. [KOR99], pages 123–194. CODEN LNCSA6. ISBN 3-540-65081-4 (print), 3-642-58535-3 (e-book). ISSN 1439-7358 (print), 2197-7100 (electronic). LCCN QA901.I525 1997. URL <http://link.springer.com/book/10.1007/978-3-642-58535-7>; <http://www.springerlink.com/content/978-3-642-58535-7>.

Sassi:2008:GLN

- [SIR08] Taoufik Sassi, Mohamed Ipopa, and François Xavier Roux. Generalization of Lions' nonoverlapping domain decomposition method for contact problems. In Langer et al. [LDK⁺08], pages 623–630. CODEN LNCSA6. ISBN 3-540-75198-X (print), 3-540-75199-8 (e-book). ISSN 1439-

7358 (print), 2197-7100 (electronic). LCCN QA402.2 .I55 2006. URL http://link.springer.com/content/pdf/10.1007/978-3-540-75199-1_78. 17th International Conference on Domain Decomposition Methods held at St. Wolfgang/Strobl, Austria, July 3–7, 2006.

Site:2004:PNS

- [Sit04] Luigi Delle Site. Polymers near a surface: an ab initio density functional based multiscale modeling approach. In Attinger and Koumoutsakos [AK04], pages 121–129. CODEN LNCSA6. ISBN 3-540-21180-2 (print), 3-642-18756-0 (e-book). ISSN 1439-7358 (print), 2197-7100 (electronic). LCCN TA342 .M85 2004. URL http://link.springer.com/content/pdf/10.1007/978-3-642-18756-8_8. Proceedings of a Summer Program in Multi-Scale Modelling and Simulation held in Lugano, Switzerland, between August 4th and 30th, 2003.

Snopok:2006:SOT

- [SJB06] Pavel Snopok, Carol Johnstone, and Martin Berz. Simulation and optimization of the Tevatron accelerator. In Bücker et al. [BCH⁺06], pages 199–209. CODEN LNCSA6. ISBN 3-540-28403-6 (print), 3-540-28438-9 (e-book). ISSN 1439-7358 (print), 2197-7100 (electronic). LCCN QA304 .I58 2006. URL http://link.springer.com/content/pdf/10.1007/3-540-28438-9_18. Proceedings of the Fourth International Conference on Automatic Differentiation, July 20–23, Chicago, Illinois.

Samtaney:2005:AMR

- [SJCM05] R. Samtaney, S. C. Jardin, P. Colella, and D. F. Martin. Adaptive mesh refinement for MHD fusion applications. In Plewa et al. [PLW05], pages 491–503. CODEN LNCSA6. ISBN 3-540-21147-0 (print), 3-540-27039-6 (e-book). ISSN 1439-7358 (print), 2197-7100 (electronic). LCCN QA377 .C46 2003. URL http://link.springer.com/content/pdf/10.1007/3-540-27039-6_37.

Schwanenberg:2000:DGM

- [SK00] Dirk Schwanenberg and Jürgen Köngeter. A discontinuous Galerkin method for the shallow water equations with source terms. In Cockburn et al. [CKS00b], pages

419–424. CODEN LNCSA6. ISBN 3-540-66787-3, 3-642-64098-2 (print), 3-642-59721-1 (e-book). ISSN 1439-7358 (print), 2197-7100 (electronic). LCCN TA347.F5 D57 2000. URL http://link.springer.com/chapter/10.1007/978-3-642-59721-3_42/. Papers from the first international symposium on DGM Newport, Rhode Island, USA, May 24–26, 1999.

Seaid:2003:EPL

- [SK03] Mohammed Seaïd and Axel Klar. Efficient preconditioning of linear systems arising from the discretization of radiative transfer equation. In Bänsch [Bän03], pages 211–236. CODEN LNCSA6. ISBN 3-642-62406-5 (print), 3-642-19014-6 (e-book). ISSN 1439-7358 (print), 2197-7100 (electronic). LCCN ???? URL http://link.springer.com/content/pdf/10.1007/978-3-642-19014-8_10.

Steinruck:2009:TIS

- [SK09] Herbert Steinrück and Bernhard Kotesovec. A thermally induced singularity in a wake. In Hegarty et al. [HKOS09], pages 237–245. CODEN LNCSA6. ISBN 3-642-00604-3 (print), 3-642-00605-1 (e-book). ISSN 1439-7358 (print), 2197-7100 (electronic). LCCN ???? URL http://link.springer.com/content/pdf/10.1007/978-3-642-00605-0_19.

Singh:2012:GF

- [SK12] Ashok Singh and Olaf Kolditz. Gas flow. In Kolditz et al. [KGSW12], pages 149–160. CODEN LNCSA6. ISBN 3-642-27176-6 (print), 3-642-27177-4 (e-book). ISSN 1439-7358 (print), 2197-7100 (electronic). LCCN ???? URL http://link.springer.com/content/pdf/10.1007/978-3-642-27177-9_8.

Skamarock:2011:KES

- [Ska11] William C. Skamarock. Kinetic energy spectra and model filters. In Lauritzen et al. [LJTN11], pages 495–512. CODEN LNCSA6. ISBN 3-642-11639-6 (print), 3-642-11640-X (e-book). ISSN 1439-7358 (print), 2197-7100 (electronic). LCCN QC861.3 .N86 2011. URL http://link.springer.com/content/pdf/10.1007/978-3-642-11640-7_14. Proceedings of the colloquium *Numerical Techniques for Global Atmospheric Models* held at the National Center for Atmospheric Research (NCAR) in Boulder, Colorado, 1–13 June 2008.

Selder:2002:NSP

- [SKD02] M. Selder, L. Kadinski, and F. Durst. Numerical simulation of physical vapour transport crystal growth processes by a finite volume solution algorithm. In Breuer et al. [BDZ02], pages 261–268. CODEN LNCSA6. ISBN 3-540-42946-8 (print), 3-642-55919-0 (e-book). ISSN 1439-7358 (print), 2197-7100 (electronic). LCCN Q183.9 .I58 2001. URL http://link.springer.com/content/pdf/10.1007/978-3-642-55919-8_29.

Scholz:2006:TSP

- [SKD06] Dominik Scholz, Stefan Kollmannsberger, and Alexander Düster. Thin solids for fluid-structure interaction. In Bungartz and Schäfer [BS06], pages 294–335. CODEN LNCSA6. ISBN 3-540-34595-7 (print), 3-540-34596-5 (e-book). ISSN 1439-7358 (print), 2197-7100 (electronic). LCCN TA357.5.F58 F586 200. URL http://link.springer.com/content/pdf/10.1007/3-540-34596-5_12. Proceedings of a workshop on fluid-structure interactions held in Hohenwart, Germany, in October 2005.

Samaey:2004:DFG

- [SKR04] Giovanni Samaey, Ioannis G. Kevrekidis, and Dirk Roose. Damping factors for the gap-tooth scheme. In Attinger and Koumoutsakos [AK04], pages 93–102. CODEN LNCSA6. ISBN 3-540-21180-2 (print), 3-642-18756-0 (e-book). ISSN 1439-7358 (print), 2197-7100 (electronic). LCCN TA342 .M85 2004. URL http://link.springer.com/content/pdf/10.1007/978-3-642-18756-8_6. Proceedings of a Summer Program in Multi-Scale Modelling and Simulation held in Lugano, Switzerland, between August 4th and 30th, 2003.

Schulz:2002:PSE

- [SKTR02] M. Schulz, M. Krafczyk, J. Tölke, and E. Rank. Parallelization strategies and efficiency of CFD computations in complex geometries using lattice Boltzmann methods on high-performance computers. In Breuer et al. [BDZ02], pages 115–122. CODEN LNCSA6. ISBN 3-540-42946-8 (print), 3-642-55919-0 (e-book). ISSN 1439-7358 (print), 2197-7100 (electronic). LCCN Q183.9 .I58 2001. URL http://link.springer.com/content/pdf/10.1007/978-3-642-55919-8_13.

Schreiber:2001:SEF

- [SKvR01] U. Schreiber, S. Keim, and U. van Rienen. Simulation of electric field strength and force density on contaminated H-V insulators. In van Rienen et al. [vRGH01], pages 79–86. CODEN LNCSA6. ISBN 3-540-42173-4 (softcover), 3-642-56470-4 (e-book). ISSN 1439-7358 (print), 2197-7100 (electronic). LCCN TK5 .S35 2001. URL http://link.springer.com/content/pdf/10.1007/978-3-642-56470-3_7. Selected contributions presented at the 3rd International Workshop on Scientific Computing in Electrical Engineering.

Siek:2000:MFP

- [SL00] Jeremy Siek and Andrew Lumsdaine. A modern framework for portable high-performance numerical linear algebra. In Langtangen et al. [LBQ00], pages 1–55. CODEN LNCSA6. ISBN 3-540-66557-9 (softcover), 3-642-57172-7 (e-book). ISSN 1439-7358 (print), 2197-7100 (electronic). LCCN QA76.6 .A336 2000. URL http://link.springer.com/chapter/10.1007/978-3-642-57172-5_1/. Papers from an International Workshop on Modern Software Tools for Scientific Computing (SciTools'98), Oslo, Norway, September 14–16, 1998.

Schieche:2014:AEF

- [SL14] Bettina Schieche and Jens Lang. Adjoint error estimation for stochastic collocation methods. In Garcke and Pflüger [GP14], pages 271–293. ISBN 3-319-04536-9 (paperback), 3-319-04537-7 (e-book). LCCN QA188 .S63 2013. URL http://link.springer.com/chapter/10.1007/978-3-319-04537-5_12/.

Slemrod:2011:AFS

- [Sle11] Marshall Slemrod. Averaging of fast-slow systems. In Gorban and Roose [GR11b], pages 1–7. CODEN LNCSA6. ISBN 3-642-14940-5 (print), 3-642-14941-3 (e-book). ISSN 1439-7358 (print), 2197-7100 (electronic). LCCN QA401 .C67 2011. URL http://link.springer.com/content/pdf/10.1007/978-3-642-14941-2_1. Extended versions of selected talks given at the international research workshop: *Coping with Complexity: Model Reduction and Data Analysis*, Ambleside, Lake District, UK, August 31–September 4, 2009 in conjunction with the A4A6, the *6th Conference on Algorithms for Approximation*.

Sundnes:2003:EAH

- [SLG03] J. Sundnes, G. T. Lines, and P. Grøttum. Electrical activity in the human heart. In Langtangen and Tveito [LT03], pages 401–449. CODEN LNCSA6. ISBN 3-540-01438-1 (print), 3-642-18237-2 (e-book). ISSN 1439-7358 (print), 2197-7100 (electronic). LCCN QA377 .A45 2003. URL http://link.springer.com/content/pdf/10.1007/978-3-642-18237-2_10.

Scheraga:2006:PFP

- [SLO⁺06] H. A. Scheraga, A. Liwo, S. Oldziej, C. Czaplewski, J. Pillardy, J. Lee, and D. R. Ripoll. The protein folding problem. In Leimkuhler et al. [LCE⁺06], pages 89–100. CODEN LNCSA6. ISBN 3-540-25542-7 (print), 3-540-31618-3 (e-book). ISSN 1439-7358 (print), 2197-7100 (electronic). LCCN QP517.M3 N49 2006. URL http://link.springer.com/content/pdf/10.1007/3-540-31618-3_6. Papers from the fourth edition of *Algorithms for Macromolecular Modelling*, Leicester, UK August 2004.

Sala:2007:AMP

- [SLST07] Marzio Sala, Paul T. Lin, John N. Shadid, and Ray S. Tuminaro. Algebraic multilevel preconditioners for nonsymmetric PDEs on stretched grids. In Widlund and Keyes [WK07], pages 739–746. CODEN LNCSA6. ISBN 3-540-34468-3 (print), 3-540-34469-1 (e-book). ISSN 1439-7358 (print), 2197-7100 (electronic). LCCN QA402.2 .I55 2005. URL http://link.springer.com/content/pdf/10.1007/978-3-540-34469-8_92. Proceedings of the *Sixteenth International Conference on Domain Decomposition Methods*, New York City, January 11–15, 2005.

Schwab:2002:GFH

- [SM02] Christoph Schwab and Ana-Maria Matache. Generalized FEM for homogenization problems. In Barth et al. [BCH02], pages 197–237. CODEN LNCSA6. ISBN 3-540-42420-2 (print), 3-642-56205-1 (e-book). ISSN 1439-7358 (print), 2197-7100 (electronic). LCCN QA403.3 .M85 2002. URL http://link.springer.com/content/pdf/10.1007/978-3-642-56205-1_4. Papers from the Yosemite Educational Symposium (YES), Yosemite valley, California, Fall 2000.

Shin:2008:DIC

- [SM08] Jaewook Shin and Priyadarshini Malusare. Design and implementation of a context-sensitive, flow-sensitive activity analysis algorithm for automatic differentiation. In Bischof et al. [BBH⁺08], pages 115–125. CODEN LNCSA6. ISBN 3-540-68935-4 (print), 3-540-68942-7 (e-book). ISSN 1439-7358 (print), 2197-7100 (electronic). LCCN QA304 .I58 2008. URL http://link.springer.com/content/pdf/10.1007/978-3-540-68942-3_11.

Stephens:2009:STS

- [SM09] Meghan Stephens and Niall Madden. A Schwarz technique for a system of reaction diffusion equations with differing parameters. In Hegarty et al. [HKOS09], pages 247–255. CODEN LNCSA6. ISBN 3-642-00604-3 (print), 3-642-00605-1 (e-book). ISSN 1439-7358 (print), 2197-7100 (electronic). LCCN ????? URL http://link.springer.com/content/pdf/10.1007/978-3-642-00605-0_20.

Sousedik:2011:AMB

- [SM11] Bedrich Sousedík and Jan Mandel. On adaptive-multilevel BDDC. In Huang et al. [HKWX11], pages 39–50. CODEN LNCSA6. ISBN 3-642-11303-6 (print), 3-642-11304-4 (e-book). ISSN 1439-7358 (print), 2197-7100 (electronic). LCCN QA402.2 .I58 2011. URL http://link.springer.com/content/pdf/10.1007/978-3-642-11304-8_4. Papers presented at the 19th International Conference on Domain Decomposition, DD19, hosted by the School of Mathematics and Computational Science of the Xiangtan University and the Hunan Key Laboratory for Computation and Simulation in Science and Engineering and held in Zhanjiajie, China, August 17–22, 2009.

Sun:2007:AFD

- [SMGR07] Jun Sun, Pan Michaleris, Anshul Gupta, and Padma Raghavan. Applications of the FETI-DP-RBS-LNA algorithm on large scale problems with localized nonlinearities. In Widlund and Keyes [WK07], pages 429–436. CODEN LNCSA6. ISBN 3-540-34468-3 (print), 3-540-34469-1 (e-book). ISSN 1439-7358 (print), 2197-7100 (electronic). LCCN QA402.2 .I55 2005. URL http://link.springer.com/content/pdf/10.1007/978-3-540-34469-8_53. Proceedings of the *Sixteenth*

International Conference on Domain Decomposition Methods,
New York City, January 11–15, 2005.

Schoberl:2007:SPH

- [SMPZ07] Joachim Schöberl, Jens M. Melenk, Clemens G. A. Pechstein, and Sabine C. Zaglmayr. Schwarz preconditioning for high order simplicial finite elements. In Widlund and Keyes [WK07], pages 139–150. CODEN LNCSA6. ISBN 3-540-34468-3 (print), 3-540-34469-1 (e-book). ISSN 1439-7358 (print), 2197-7100 (electronic). LCCN QA402.2 .I55 2005. URL http://link.springer.com/content/pdf/10.1007/978-3-540-34469-8_12. Proceedings of the *Sixteenth International Conference on Domain Decomposition Methods*, New York City, January 11–15, 2005.

Stephan:2008:DDA

- [SMT08] Ernst P. Stephan, Matthias Maischak, and Thanh Tran. Domain decomposition algorithms for an indefinite hypersingular integral equation in three dimensions. In Langer et al. [LDK⁺08], pages 647–655. CODEN LNCSA6. ISBN 3-540-75198-X (print), 3-540-75199-8 (e-book). ISSN 1439-7358 (print), 2197-7100 (electronic). LCCN QA402.2 .I55 2006. URL http://link.springer.com/content/pdf/10.1007/978-3-540-75199-1_81. 17th International Conference on Domain Decomposition Methods held at St. Wolfgang/Strobl, Austria, July 3–7, 2006.

Sugiyama:2003:MSO

- [SN03] Yuki Sugiyama and Akihiro Nakayama. Modeling, simulation and observations for freeway traffic and pedestrian. In Emerich et al. [ENS03], page ?? CODEN LNCSA6. ISBN 3-540-40367-1. ISSN 1439-7358 (print), 2197-7100 (electronic). LCCN QC173.4.I57 I57 2003. URL <http://www.loc.gov/catdir/enhancements/fy0818/2003060231-d.html>. Papers from the workshop on “Computational Physics of Transport and Interfacial Dynamics”, Dresden, February 25–March 8, 2002.

Stiller:2000:SPM

- [SNF00] Jörg Stiller, Wolfgang E. Nagel, and Uwe Fladrich. Scalability of parallel multigrid adaption. In Dick et al. [DRV00], pages 228–234. CODEN LNCSA6. ISBN 3-540-67157-9 (print), 3-642-58312-1 (e-book). ISSN 1439-7358 (print), 2197-7100

(electronic). LCCN QA377 .E94 1999. URL http://link.springer.com/chapter/10.1007/978-3-642-58312-4_31/.

Skavhaug:2003:MMF

- [SNT03a] O. Skavhaug, B. F. Nielsen, and A. Tveito. Mathematical models of financial derivatives. In Langtangen and Tveito [LT03], pages 451–482. CODEN LNCSA6. ISBN 3-540-01438-1 (print), 3-642-18237-2 (e-book). ISSN 1439-7358 (print), 2197-7100 (electronic). LCCN QA377 .A45 2003. URL http://link.springer.com/content/pdf/10.1007/978-3-642-18237-2_11.

Skavhaug:2003:NMF

- [SNT03b] O. Skavhaug, B. F. Nielsen, and A. Tveito. Numerical methods for financial derivatives. In Langtangen and Tveito [LT03], pages 483–506. CODEN LNCSA6. ISBN 3-540-01438-1 (print), 3-642-18237-2 (e-book). ISSN 1439-7358 (print), 2197-7100 (electronic). LCCN QA377 .A45 2003. URL http://link.springer.com/content/pdf/10.1007/978-3-642-18237-2_12.

Sugita:2002:FEC

- [SO02] Yuji Sugita and Yuko Okamoto. Free-energy calculations in protein folding by generalized-ensemble algorithms. In Schlick and Gan [SG02], pages 304–332. CODEN LNCSA6. ISBN 3-540-43756-8 (print), 3-642-56080-6 (e-book). ISSN 1439-7358 (print), 2197-7100 (electronic). LCCN QP517.M3 A384 2000. URL http://link.springer.com/content/pdf/10.1007/978-3-642-56080-4_13.

Sipahi:2004:ICT

- [SO04] Rifat Sipahi and Nejat Olgac. Improvements on the cluster treatment of characteristic roots and the case studies. In Niculescu and Gu [NG04], pages 61–73. CODEN LNCSA6. ISBN 3-540-20890-9 (print), 3-642-18482-0 (e-book). ISSN 1439-7358 (print), 2197-7100 (electronic). LCCN TJ213 .A253 2004. URL http://link.springer.com/content/pdf/10.1007/978-3-642-18482-6_4. Most of the chapters are based on the materials presented in the CNRS-NSF Workshop *Advances in Time-Delay Systems* held in Paris in January 22–24, 2003.

Sengissen:2007:RSN

- [SP07] A. X. Sengissen and T. J. Poinsot. Response of a swirled non-premixed burner to fuel flow rate modulation. In Kassinos et al. [KLIM07], pages 337–351. CODEN LNCSA6. ISBN 3-540-34233-8 (print), 3-540-34234-6 (e-book). ISSN 1439-7358 (print), 2197-7100 (electronic). LCCN TA357.5.T87 C66 2007. URL http://link.springer.com/content/pdf/10.1007/978-3-540-34234-2_24. Proceedings of the symposium on *Complex Effects in Large Eddy Simulation* held in Lemesos (Limassol), Cyprus, September 21–24, 2005.

Scacchi:2008:MSM

- [SP08] Simone Scacchi and Luca F. Pavarino. Multilevel Schwarz and multigrid preconditioners for the bidomain system. In Langer et al. [LDK⁺08], pages 631–638. CODEN LNCSA6. ISBN 3-540-75198-X (print), 3-540-75199-8 (e-book). ISSN 1439-7358 (print), 2197-7100 (electronic). LCCN QA402.2.L55 2006. URL http://link.springer.com/content/pdf/10.1007/978-3-540-75199-1_79. 17th International Conference on Domain Decomposition Methods held at St. Wolfgang/Strobl, Austria, July 3–7, 2006.

Salinger:2003:OLS

- [SPS⁺03] A. G. Salinger, R. P. Pawlowski, J. N. Shadid, B. van Bloemen Waanders, and R. Bartlett. Optimization of large-scale reacting flows using MPSalsa and sequential quadratic programming. In Biegler et al. [BGHvBW03a], pages 45–59. CODEN LNCSA6. ISBN 3-540-05045-0 (print), 3-642-55508-X (e-book). ISSN 1439-7358 (print), 2197-7100 (electronic). LCCN QA402.5.L358 2003. URL http://link.springer.com/content/pdf/10.1007/978-3-642-55508-4_3.

Samaey:2005:CGT

- [SR05a] Giovanni Samaey and Dirk Roose. Combining the gap-tooth scheme with projective integration: Patch dynamics. In Engquist et al. [ERL05], pages 225–239. CODEN LNCSA6. ISBN 3-540-25335-1 (print), 3-540-26444-2 (e-book). ISSN 1439-7358 (print), 2197-7100 (electronic). LCCN TA347.F5 M85 2005. URL http://link.springer.com/content/pdf/10.1007/3-540-26444-2_12. Proceedings of *Multiscale Methods in Science and Engineering*, Uppsala, Sweden, January 26–28, 2004.

Staff:2005:SPA

- [SR05b] Gunnar Andreas Staff and Einar M. Rønquist. Stability of the Parareal algorithm. In Kornhuber et al. [KHP⁺05], pages 449–456. CODEN LNCSA6. ISBN 3-540-22523-4 (print), 3-540-26825-1 (e-book). ISSN 1439-7358 (print), 2197-7100 (electronic). LCCN QA402.2 .I55 2003. URL http://link.springer.com/content/pdf/10.1007/3-540-26825-1_46. Papers from the 15th International Conference on Domain Decomposition, Freie Universität Berlin (FU), Berlin, Germany, July 21–25, 2003.

Stals:2008:PLO

- [SR08] Linda Stals and Stephen Roberts. Preconditioners for low order thin plate spline approximations. In Langer et al. [LDK⁺08], pages 639–646. CODEN LNCSA6. ISBN 3-540-75198-X (print), 3-540-75199-8 (e-book). ISSN 1439-7358 (print), 2197-7100 (electronic). LCCN QA402.2 .I55 2006. URL http://link.springer.com/content/pdf/10.1007/978-3-540-75199-1_80. 17th International Conference on Domain Decomposition Methods held at St. Wolfgang/Strobl, Austria, July 3–7, 2006.

Serre:2002:HON

- [SRCB02] E. Serre, I. Raspo, O. Czarny, and P. Bontoux. High-order numerical solutions for rotating flows with walls. In Breuer et al. [BDZ02], pages 213–220. CODEN LNCSA6. ISBN 3-540-42946-8 (print), 3-642-55919-0 (e-book). ISSN 1439-7358 (print), 2197-7100 (electronic). LCCN Q183.9 .I58 2001. URL http://link.springer.com/content/pdf/10.1007/978-3-642-55919-8_23.

Sagui:2006:NDM

- [SRPD06] Celeste Sagui, Christopher Roland, Lee G. Pedersen, and Thomas A. Darden. New distributed multipole methods for accurate electrostatics in large-scale biomolecular simulations. In Leimkuhler et al. [LCE⁺06], pages 297–312. CODEN LNCSA6. ISBN 3-540-25542-7 (print), 3-540-31618-3 (e-book). ISSN 1439-7358 (print), 2197-7100 (electronic). LCCN QP517.M3 N49 2006. URL http://link.springer.com/content/pdf/10.1007/3-540-31618-3_16. Papers from the fourth edition of *Algorithms for Macromolecular Modelling*, Leicester, UK August 2004.

Speith:1999:NFD

- [SRR99] R. Speith, H. Riffert, and H. Ruder. Numerical fluid dynamics in astrophysics with smoothed particle hydrodynamics. In Bungartz et al. [BDZ99], pages 417–430. CODEN LNCSA6. ISBN 3-540-65730-4 (print), 3-642-60155-3 (e-book). ISSN 1439-7358 (print), 2197-7100 (electronic). LCCN Q183.9.I58 1998. URL http://link.springer.com/chapter/10.1007/978-3-642-60155-2_35/.

Steiner:2015:CPN

- [SRSK15] Johannes Steiner, Daniel Ruprecht, Robert Speck, and Rolf Krause. Convergence of parareal for the Navier–Stokes equations depending on the Reynolds number. In Abdulle et al. [ADK⁺15], pages 195–202. ISBN 3-319-10704-6 (paperback), 3-319-10705-4 (e-book). ISSN 1439-7358 (print), 2197-7100 (electronic). LCCN QA76.9.M35 .E976 2015. URL http://link.springer.com/chapter/10.1007/978-3-319-10705-9_19/.

Sterz:2001:SBT

- [SS01] O. Sterz and C. Schwab. A scalar BEM for time harmonic eddy current problems with impedance boundary conditions. In van Rienen et al. [vRGH01], pages 129–136. CODEN LNCSA6. ISBN 3-540-42173-4 (softcover), 3-642-56470-4 (e-book). ISSN 1439-7358 (print), 2197-7100 (electronic). LCCN TK5 .S35 2001. URL http://link.springer.com/content/pdf/10.1007/978-3-642-56470-3_13. Selected contributions presented at the 3rd International Workshop on Scientific Computing in Electrical Engineering.

Schmidlin:2002:WGB

- [SS02] Gregor Schmidlin and Christoph Schwab. Wavelet Galerkin BEM on unstructured meshes by aggregation. In Barth et al. [BCH02], pages 359–378. CODEN LNCSA6. ISBN 3-540-42420-2 (print), 3-642-56205-1 (e-book). ISSN 1439-7358 (print), 2197-7100 (electronic). LCCN QA403.3 .M85 2002. URL http://link.springer.com/content/pdf/10.1007/978-3-642-56205-1_12. Papers from the Yosemite Educational Symposium (YES), Yosemite valley, California, Fall 2000.

Schmidt:2005:DAF

- [SS05a] Alfred Schmidt and Kunibert G. Siebert. *Design of Adaptive Finite Element Software: The Finite Element Toolbox ALBERTA*, volume 42 of *Lecture Notes in Computational Science and Engineering*. Springer-Verlag Inc., New York, NY, USA, 2005. CODEN LNCSA6. ISBN 3-540-22842-X (print), 3-540-27156-2 (e-book). ISSN 1439-7358 (print), 2197-7100 (electronic). xii + 315 pp. LCCN Q183.9 .S23 2005. URL <http://link.springer.com/book/10.1007/b138692>; <http://www.alberta-fem.de/>.

Swim:2005:FSI

- [SS05b] Edward Swim and Padmanabhan Seshaiyer. Fluid-structure interaction using nonconforming finite element methods. In Kornhuber et al. [KHP⁺05], pages 217–224. CODEN LNCSA6. ISBN 3-540-22523-4 (print), 3-540-26825-1 (e-book). ISSN 1439-7358 (print), 2197-7100 (electronic). LCCN QA402.2 .I55 2003. URL http://link.springer.com/content/pdf/10.1007/3-540-26825-1_19. Papers from the 15th International Conference on Domain Decomposition, Freie Universität Berlin (FU), Berlin, Germany, July 21–25, 2003.

Sarkis:2007:MSP

- [SS07a] Marcus Sarkis and Daniel Szyld. MINISYMPOSIUM 6: Schwarz preconditioners and accelerators. In Widlund and Keyes [WK07], page 307. CODEN LNCSA6. ISBN 3-540-34468-3 (print), 3-540-34469-1 (e-book). ISSN 1439-7358 (print), 2197-7100 (electronic). LCCN QA402.2 .I55 2005. URL http://link.springer.com/content/pdf/10.1007/978-3-540-34469-8_36. Proceedings of the *Sixteenth International Conference on Domain Decomposition Methods*, New York City, January 11–15, 2005.

Sarkis:2007:PDA

- [SS07b] Marcus Sarkis and Daniel B. Szyld. A proposal for a dynamically adapted inexact additive Schwarz preconditioner. In Widlund and Keyes [WK07], pages 341–345. CODEN LNCSA6. ISBN 3-540-34468-3 (print), 3-540-34469-1 (e-book). ISSN 1439-7358 (print), 2197-7100 (electronic). LCCN QA402.2 .I55 2005. URL http://link.springer.com/content/pdf/10.1007/978-3-540-34469-8_41. Pro-

ceedings of the *Sixteenth International Conference on Domain Decomposition Methods*, New York City, January 11–15, 2005.

Saisana:2008:EPO

- [SS08] M. Saisana and A. Saltelli. Expert panel opinion and global sensitivity analysis for composite indicators. In Graziani [Gra08b], pages 251–275. CODEN LNCSA6. ISBN 3-540-77361-4 (print), 3-540-77362-2 (e-book). ISSN 1439-7358 (print), 2197-7100 (electronic). LCCN ???? URL http://link.springer.com/content/pdf/10.1007/978-3-540-77362-7_11. Proceedings of the 2006 Computational Methods in Transport (CMTW) conference.

Shishkina:2011:FDS

- [SS11] L. P. Shishkina and G. I. Shishkin. Flux difference schemes for parabolic reaction-diffusion equations with discontinuous data. In Clavero et al. [CGL11], pages 217–225. CODEN LNCSA6. ISBN 3-642-19664-0 (print), 3-642-19665-9 (e-book). ISSN 1439-7358 (print), 2197-7100 (electronic). LCCN ???? URL http://link.springer.com/content/pdf/10.1007/978-3-642-19665-2_23. Selected papers from the proceedings of BAIL 2010 (Boundary and Interior Layers — Computational and Asymptotic Methods), held from 5 to 9 July 2010 at the University of Zaragoza, Spain.

Saumon:2014:SWD

- [SSA⁺14] D. Saumon, C. E. Starrett, J. A. Anta, W. Daughton, and G. Chabrier. The structure of warm dense matter modeled with an average atom model with ion-ion correlations. In Graziani et al. [GDRT14b], pages 151–176. ISBN 3-319-04912-7. ISSN 1439-7358 (print), 2197-7100 (electronic). LCCN QA71-90. URL http://link.springer.com/chapter/10.1007/978-3-319-04912-0_6/.

Schafer:2010:ENS

- [SSBP10] M. Schäfer, D. C. Sternel, G. Becker, and P. Pironkov. Efficient numerical simulation and optimization of fluid-structure interaction. In Bungartz et al. [BMS10], pages 131–158. CODEN LNCSA6. ISBN 3-642-14205-2 (print), 3-642-14206-0 (e-book). ISSN 1439-7358 (print), 2197-7100 (electronic). LCCN TA357.5.F58 F586b 2010. URL http://link.springer.com/content/pdf/10.1007/978-3-642-14206-2_6. Selected

contributions from the *First International Workshop on Computational Engineering — special topic Fluid-Structure Interactions* held in Herrsching, Germany, in October 2009.

Suli:2000:HDP

- [SSH00] Endre Süli, Christoph Schwab, and Paul Houston. *hp*-DGFEM for partial differential equations with nonnegative characteristic form. In Cockburn et al. [CKS00b], pages 221–230. CODEN LNCSA6. ISBN 3-540-66787-3, 3-642-64098-2 (print), 3-642-59721-1 (e-book). ISSN 1439-7358 (print), 2197-7100 (electronic). LCCN TA347.F5 D57 2000. URL http://link.springer.com/chapter/10.1007/978-3-642-59721-3_16/. Papers from the first international symposium on DGM Newport, Rhode Island, USA, May 24–26, 1999.

Sarkis:2008:BDP

- [SSM08] Marcus Sarkis, Christian E. Schaerer, and Tarek Mathew. Block diagonal Parareal preconditioner for parabolic optimal control problems. In Langer et al. [LDK⁺08], pages 409–416. CODEN LNCSA6. ISBN 3-540-75198-X (print), 3-540-75199-8 (e-book). ISSN 1439-7358 (print), 2197-7100 (electronic). LCCN QA402.2 .I55 2006. URL http://link.springer.com/content/pdf/10.1007/978-3-540-75199-1_52. 17th International Conference on Domain Decomposition Methods held at St. Wolfgang/Strobl, Austria, July 3–7, 2006.

Selten:2003:ERC

- [SSP⁺03] Reinhard Selten, Michael Schreckenberger, Thomas Pitz, Thorsten Chmura, and Joachim Wahle. Experiments on route choice behaviour. In Emmerich et al. [ENS03], page ?? CODEN LNCSA6. ISBN 3-540-40367-1. ISSN 1439-7358 (print), 2197-7100 (electronic). LCCN QC173.4.I57 I57 2003. URL <http://www.loc.gov/catdir/enhancements/fy0818/2003060231-d.html>. Papers from the workshop on “Computational Physics of Transport and Interfacial Dynamics”, Dresden, February 25–March 8, 2002.

Schrefi:2003:FEM

- [SSS03] Thomas Schrefi, Dieter Suess, and Werner Scholz. Finite element micromagnetics. In Carstensen et al. [CFH⁺03], pages 165–181. CODEN LNCSA6. ISBN 3-540-44392-4

(print), 3-642-55745-7 (e-book). ISSN 1439-7358 (print), 2197-7100 (electronic). LCCN QC665.E4 G35 2001. URL http://link.springer.com/content/pdf/10.1007/978-3-642-55745-3_11.

Schotzau:2014:ECH

- [SSWW14] Dominik Schötzau, Christoph Schwab, Thomas Wihler, and Marcel Wirz. Exponential convergence of hp-DGFEM for elliptic problems in polyhedral domains. In Azaïez et al. [AHE13], pages 57–73. ISBN 3-319-01600-8 (hardcover). ISSN 1439-7358 (print), 2197-7100 (electronic). LCCN ???? URL http://link.springer.com/chapter/10.1007/978-3-319-01601-6_4/.

Shaidurov:2000:SSI

- [ST00] Vladimir V. Shaidurov and Gisela Timmermann. Stable semi-iterative smoother for cascadic and multigrid algorithms. In Dick et al. [DRV00], pages 221–227. CODEN LNCSA6. ISBN 3-540-67157-9 (print), 3-642-58312-1 (e-book). ISSN 1439-7358 (print), 2197-7100 (electronic). LCCN QA377 .E94 1999. URL http://link.springer.com/chapter/10.1007/978-3-642-58312-4_30/.

Sharp:2005:MTS

- [ST05] Richard Sharp and Yen-Hsi Tsai. Multiple time scale numerical methods for the inverted pendulum problem. In Engquist et al. [ERL05], pages 241–261. CODEN LNCSA6. ISBN 3-540-25335-1 (print), 3-540-26444-2 (e-book). ISSN 1439-7358 (print), 2197-7100 (electronic). LCCN TA347.F5 M85 2005. URL http://link.springer.com/content/pdf/10.1007/3-540-26444-2_13. Proceedings of *Multiscale Methods in Science and Engineering*, Uppsala, Sweden, January 26–28, 2004.

Starck:2002:NMT

- [Sta02] Jean-Luc Starck. Nonlinear multiscale transforms. In Barth et al. [BCH02], pages 239–278. CODEN LNCSA6. ISBN 3-540-42420-2 (print), 3-642-56205-1 (e-book). ISSN 1439-7358 (print), 2197-7100 (electronic). LCCN QA403.3 .M85 2002. URL http://link.springer.com/content/pdf/10.1007/978-3-642-56205-1_5. Papers from the Yosemite Educational Symposium (YES), Yosemite valley, California, Fall 2000.

Stevenson:1998:PLP

- [Ste98] Rob Stevenson. Piecewise linear (pre-)wavelets on non-uniform meshes. In Hackbusch and Wittum [HW98], pages 306–319. CODEN LNCSA6. ISBN 3-540-63133-X (softcover), 3-642-58734-8 (e-book). ISSN 1439-7358 (print), 2197-7100 (electronic). LCCN QA377 .E94 1996. URL http://link.springer.com/chapter/10.1007/978-3-642-58734-4_18/.

Stefanica:2005:CND

- [Ste05] Dan Stefanica. Choosing nonmortars: Does it influence the performance of FETI–DP algorithms? In Kornhuber et al. [KHP⁺05], pages 377–384. CODEN LNCSA6. ISBN 3-540-22523-4 (print), 3-540-26825-1 (e-book). ISSN 1439-7358 (print), 2197-7100 (electronic). LCCN QA402.2 .I55 2003. URL http://link.springer.com/content/pdf/10.1007/3-540-26825-1_38. Papers from the 15th International Conference on Domain Decomposition, Freie Universität Berlin (FU), Berlin, Germany, July 21–25, 2003.

Stefanica:2007:BAM

- [Ste07] Dan Stefanica. A balancing algorithm for mortar methods. In Widlund and Keyes [WK07], pages 747–754. CODEN LNCSA6. ISBN 3-540-34468-3 (print), 3-540-34469-1 (e-book). ISSN 1439-7358 (print), 2197-7100 (electronic). LCCN QA402.2 .I55 2005. URL http://link.springer.com/content/pdf/10.1007/978-3-540-34469-8_93. Proceedings of the *Sixteenth International Conference on Domain Decomposition Methods*, New York City, January 11–15, 2005.

Steinbach:2008:CAB

- [Ste08] Olaf Steinbach. Challenges and applications of boundary element domain decomposition methods. In Langer et al. [LDK⁺08], pages 131–142. CODEN LNCSA6. ISBN 3-540-75198-X (print), 3-540-75199-8 (e-book). ISSN 1439-7358 (print), 2197-7100 (electronic). LCCN QA402.2 .I55 2006. URL http://link.springer.com/content/pdf/10.1007/978-3-540-75199-1_11. 17th International Conference on Domain Decomposition Methods held at St. Wolfgang/Strobl, Austria, July 3–7, 2006.

Stenberg:2015:WSM

- [Ste15] Rolf Stenberg. Weakly symmetric mixed finite elements for linear elasticity. In Abdulle et al. [ADK⁺15], pages 3–18. ISBN

3-319-10704-6 (paperback), 3-319-10705-4 (e-book). ISSN 1439-7358 (print), 2197-7100 (electronic). LCCN QA76.9.M35 .E976 2015. URL http://link.springer.com/chapter/10.1007/978-3-319-10705-9_1/.

Simon:2013:OCP

- [SU13] Moritz Simon and Michael Ulbrich. Optimal control of partially miscible two-phase flow with applications to sub-surface CO₂ sequestration. In Bader et al. [BBW13], pages 81–98. ISBN 3-642-38761-6, 3-642-38762-4 (e-book). ISSN 1439-7358 (print), 2197-7100 (electronic). LCCN ???? URL http://link.springer.com/chapter/10.1007/978-3-642-38762-3_4/.

Sezer-Uzol:2009:DTA

- [SUGL09] Nilay Sezer-Uzol, Ankur Gupta, and Lyle N. Long. 3-D time-accurate inviscid and viscous CFD simulations of wind turbine rotor flow fields. In Tuncer et al. [TGEM09], pages 457–464. CODEN LNCSA6. ISBN 3-540-92743-3 (print), 3-540-92744-1 (e-book). ISSN 1439-7358 (print), 2197-7100 (electronic). LCCN ???? URL http://link.springer.com/content/pdf/10.1007/978-3-540-92744-0_57. Parallel CFD 2007 was held in Antalya, Turkey, from May 21 to 24, 2007.

Suli:1999:PEA

- [Sül99] Endre Süli. A posteriori error analysis and adaptivity for finite element approximations of hyperbolic problems. In Kröner et al. [KOR99], pages 123–194. CODEN LNCSA6. ISBN 3-540-65081-4 (print), 3-642-58535-3 (e-book). ISSN 1439-7358 (print), 2197-7100 (electronic). LCCN QA901.I525 1997. URL http://link.springer.com/chapter/10.1007/978-3-642-58535-7_4/.

Samaey:2011:MAC

- [SV11] Giovanni Samaey and Christophe Vandekerckhove. A multilevel algorithm to compute steady states of lattice Boltzmann models. In Gorban and Roose [GR11b], pages 151–167. CODEN LNCSA6. ISBN 3-642-14940-5 (print), 3-642-14941-3 (e-book). ISSN 1439-7358 (print), 2197-7100 (electronic). LCCN QA401 .C67 2011. URL http://link.springer.com/content/pdf/10.1007/978-3-642-14941-2_8. Extended versions of selected talks given at the international research workshop: *Coping with Complexity: Model Reduction and*

Data Analysis, Ambleside, Lake District, UK, August 31–September 4, 2009 in conjunction with the A4A6, the 6th Conference on Algorithms for Approximation.

Svacek:2009:NSA

- [Svá09] P. Sváček. On numerical simulation of an aeroelastic problem nearby the flutter boundary. In Hegarty et al. [HKOS09], pages 257–266. CODEN LNCSA6. ISBN 3-642-00604-3 (print), 3-642-00605-1 (e-book). ISSN 1439-7358 (print), 2197-7100 (electronic). LCCN ???? URL http://link.springer.com/content/pdf/10.1007/978-3-642-00605-0_21.

Somasekhar:2011:ECR

- [SVM11] M. Somasekhar, S. Vivek, and K. S. Malagi. Efficient cloud refinement for kinetic meshless methods. In Griebel and Schweitzer [GS11c], pages 207–217. CODEN LNCSA6. ISBN 3-642-16228-2 (print), 3-642-16229-0 (e-book). ISSN 1439-7358 (print), 2197-7100 (electronic). LCCN ???? URL http://link.springer.com/content/pdf/10.1007/978-3-642-16229-9_13. Proceedings of the Fifth International Workshop on Meshfree Methods for Partial Differential Equations held from August 17 to August 19, 2009 in Bonn, Germany.

Schulz:1998:MOM

- [SW98] Volker Schulz and Gabriel Wittum. Multigrid optimization methods for stationary parameter identification problems in groundwater flow. In Hackbusch and Wittum [HW98], pages 276–288. CODEN LNCSA6. ISBN 3-540-63133-X (softcover), 3-642-58734-8 (e-book). ISSN 1439-7358 (print), 2197-7100 (electronic). LCCN QA377 .E94 1996. URL http://link.springer.com/chapter/10.1007/978-3-642-58734-4_16/.

Schuhmann:2001:CFD

- [SW01] R. Schuhmann and T. Weiland. Calculation of frequency domain parameters in lossfree and lossy structures using the FI-technique and a modal approach. In van Rienen et al. [vRGH01], pages 113–120. CODEN LNCSA6. ISBN 3-540-42173-4 (softcover), 3-642-56470-4 (e-book). ISSN 1439-7358 (print), 2197-7100 (electronic). LCCN TK5 .S35 2001. URL http://link.springer.com/content/pdf/10.1007/978-3-642-56470-3_11. Selected contributions presented at the 3rd International Workshop on Scientific Computing in Electrical Engineering.

Svanstedt:2005:MHN

- [SW05] Nils Svanstedt and Niklas Wellander. Multiscale homogenization of the Navier–Stokes equation. In Engquist et al. [ERL05], pages 263–273. CODEN LNCSA6. ISBN 3-540-25335-1 (print), 3-540-26444-2 (e-book). ISSN 1439-7358 (print), 2197-7100 (electronic). LCCN TA347.F5 M85 2005. URL http://link.springer.com/content/pdf/10.1007/3-540-26444-2_14. Proceedings of *Multiscale Methods in Science and Engineering*, Uppsala, Sweden, January 26–28, 2004.

Schlenkrich:2006:AAB

- [SW06a] Sebastian Schlenkrich and Andrea Walther. Application of AD-based quasi-Newton methods to stiff ODEs. In Bücker et al. [BCH⁺06], pages 89–98. CODEN LNCSA6. ISBN 3-540-28403-6 (print), 3-540-28438-9 (e-book). ISSN 1439-7358 (print), 2197-7100 (electronic). LCCN QA304 .I58 2006. URL http://link.springer.com/content/pdf/10.1007/3-540-28438-9_8. Proceedings of the Fourth International Conference on Automatic Differentiation, July 20–23, Chicago, Illinois.

Shumaker:2006:ISN

- [SW06b] Dana E. Shumaker and Carol S. Woodward. Implicit solution of non-equilibrium radiation diffusion including reactive heating source in material energy equation. In Graziani [Gra06], pages 353–370. CODEN LNCSA6. ISBN 3-540-28122-3 (print), 3-540-28125-8 (e-book). ISSN 1439-7358 (print), 2197-7100 (electronic). LCCN MLCM 2006/40189 (Q); QC793.3.T7 C66 2006. URL http://link.springer.com/content/pdf/10.1007/3-540-28125-8_16.

Steinbach:2008:MDD

- [SW08] Olaf Steinbach and Wolfgang Wendland. MINISYMPOSIUM 2: Domain decomposition based on boundary elements. In Langer et al. [LDK⁺08], page 165. CODEN LNCSA6. ISBN 3-540-75198-X (print), 3-540-75199-8 (e-book). ISSN 1439-7358 (print), 2197-7100 (electronic). LCCN QA402.2 .I55 2006. URL http://link.springer.com/content/pdf/10.1007/978-3-540-75199-1_15. 17th International Conference on Domain Decomposition Methods held at St. Wolfgang/Strobl, Austria, July 3–7, 2006.

Steinbach:2011:RBE

- [SW11] Olaf Steinbach and Markus Windisch. Robust boundary element domain decomposition solvers in acoustics. In Huang et al. [HKWX11], pages 277–284. CODEN LNCSA6. ISBN 3-642-11303-6 (print), 3-642-11304-4 (e-book). ISSN 1439-7358 (print), 2197-7100 (electronic). LCCN QA402.2 .I58 2011. URL http://link.springer.com/content/pdf/10.1007/978-3-642-11304-8_31. Papers presented at the 19th International Conference on Domain Decomposition, DD19, hosted by the School of Mathematics and Computational Science of the Xiangtan University and the Hunan Key Laboratory for Computation and Simulation in Science and Engineering and held in Zhanjiajie, China, August 17–22, 2009.

Schweitzer:2015:NIF

- [SW15] Marc Alexander Schweitzer and Sa Wu. Numerical integration of on-the-fly-computed enrichment functions in the PUM. In Griebel and Schweitzer [GS14], pages 247–267. ISBN 3-319-06898-9. LCCN QA71 .G75 2015; QA377. URL http://link.springer.com/chapter/10.1007/978-3-319-06898-5_13/.

Swann:2000:CDA

- [Swa00] Howard Swann. The Cell discretization algorithm; an overview. In Cockburn et al. [CKS00b], pages 433–438. CODEN LNCSA6. ISBN 3-540-66787-3, 3-642-64098-2 (print), 3-642-59721-1 (e-book). ISSN 1439-7358 (print), 2197-7100 (electronic). LCCN TA347.F5 D57 2000. URL http://link.springer.com/chapter/10.1007/978-3-642-59721-3_44/. Papers from the first international symposium on DGM Newport, Rhode Island, USA, May 24–26, 1999.

Sun:2012:GF

- [SWD12] Feng Sun, Norihiro Watanabe, and Jens-Olaf Delfs. Groundwater flow. In Kolditz et al. [KGSW12], pages 107–123. CODEN LNCSA6. ISBN 3-642-27176-6 (print), 3-642-27177-4 (e-book). ISSN 1439-7358 (print), 2197-7100 (electronic). LCCN ????. URL http://link.springer.com/content/pdf/10.1007/978-3-642-27177-9_5.

Swesty:2006:STD

- [Swe06] F. Douglas Swesty. The solution of the time-dependent S_N equations on parallel architectures. In Graziani [Gra06], pages

469–486. CODEN LNCSA6. ISBN 3-540-28122-3 (print), 3-540-28125-8 (e-book). ISSN 1439-7358 (print), 2197-7100 (electronic). LCCN MLCM 2006/40189 (Q); QC793.3.T7 C66 2006. URL http://link.springer.com/content/pdf/10.1007/3-540-28125-8_23.

Stumm:2008:SEA

- [SWR08] Philipp Stumm, Andrea Walther, and Jan Riehme. Structure-exploiting automatic differentiation of finite element discretizations. In Bischof et al. [BBH⁺08], pages 339–349. CODEN LNCSA6. ISBN 3-540-68935-4 (print), 3-540-68942-7 (e-book). ISSN 1439-7358 (print), 2197-7100 (electronic). LCCN QA304 .I58 2008. URL http://link.springer.com/content/pdf/10.1007/978-3-540-68942-3_30.

Schadle:2007:ASM

- [SZ07] Achim Schädle and Lin Zschiedrich. Additive Schwarz method for scattering problems using the PML method at interfaces. In Widlund and Keyes [WK07], pages 205–212. CODEN LNCSA6. ISBN 3-540-34468-3 (print), 3-540-34469-1 (e-book). ISSN 1439-7358 (print), 2197-7100 (electronic). LCCN QA402.2 .I55 2005. URL http://link.springer.com/content/pdf/10.1007/978-3-540-34469-8_21. Proceedings of the *Sixteenth International Conference on Domain Decomposition Methods*, New York City, January 11–15, 2005.

Simon:2009:PSS

- [SZ09] René Simon and Walter Zulehner. Patch smoothers for saddle point problems with applications to PDE-constrained optimization problems. In Bercovier et al. [BGKW09], pages 153–160. CODEN LNCSA6. ISBN 3-642-02676-1 (print), 3-642-02677-X (e-book). ISSN 1439-7358 (print), 2197-7100 (electronic). LCCN QA402.2 .I584 2009. URL http://link.springer.com/content/pdf/10.1007/978-3-642-02677-5_15.

Stelling:2010:NMW

- [SZ10] G. S. Stelling and M. Zijlema. Numerical modeling of wave propagation, breaking and run-up on a beach. In Koren and Vuik [KV10], pages 373–401. CODEN LNCSA6. ISBN 3-642-03343-1 (print), 3-642-03344-X (e-book). ISSN 1439-7358 (print), 2197-7100 (electronic). LCCN Q183.9 .A35 2010. URL http://link.springer.com/content/pdf/10.1007/978-3-642-03344-5_13.

Schweitzer:2015:DPP

- [SZ15] Marc Alexander Schweitzer and Albert Ziegenhagel. Dispersion properties of the partition of unity method and explicit dynamics. In Griebel and Schweitzer [GS14], pages 269–292. ISBN 3-319-06898-9. LCCN QA71 .G75 2015; QA377. URL http://link.springer.com/chapter/10.1007/978-3-319-06898-5_14/.

Taasan:2000:MDC

- [Ta'00] Shlomo Ta'asan. From molecular dynamics to continuum models. In Dick et al. [DRV00], pages 235–241. CODEN LNCSA6. ISBN 3-540-67157-9 (print), 3-642-58312-1 (e-book). ISSN 1439-7358 (print), 2197-7100 (electronic). LCCN QA377 .E94 1999. URL http://link.springer.com/chapter/10.1007/978-3-642-58312-4_32/.

Terada:2005:FCM

- [TA05] Kenjiro Terada and Mitsuteru Asai. Finite cover method for physically and geometrically nonlinear problems. In Griebel and Schweitzer [GS05], pages 169–190. CODEN LNCSA6. ISBN 3-540-23026-2 (print), 3-540-27099-X (e-book). ISSN 1439-7358 (print), 2197-7100 (electronic). LCCN QA377 .M452 2005. URL http://link.springer.com/content/pdf/10.1007/3-540-27099-X_10. Proceedings of the Second International Workshop on Meshfree Methods for Partial Differential Equations, Institut für Numerische Simulation Rheinische Friedrich–Wilhelms Universität Bonn, September 15–17, 2003.

Tiwari:2007:MMS

- [TA07] Sudarshan Tiwari and Sergey Antonov. A meshfree method for simulations of interactions between fluids and flexible structures. In Griebel and Schweitzer [GS07b], pages 249–264. CODEN LNCSA6. ISBN 3-540-46214-7 (print), 3-540-46222-8 (e-book). ISSN 1439-7358 (print), 2197-7100 (electronic). LCCN QA377 .M45 2005. URL http://link.springer.com/content/pdf/10.1007/978-3-540-46222-4_15. Third international workshop on Meshfree Methods for Partial Differential Equations held from September 12 to September 15, 2005 in Bonn, Germany.

Tarbouriech:2004:BCM

- [TAA04] Sophie Tarbouriech, Chaouki T. Abdallah, and Marco Ariola. Bounded control of multiple-delay systems with applications to ATM networks. In Niculescu and Gu [NG04], pages 339–353. CODEN LNCSA6. ISBN 3-540-20890-9 (print), 3-642-18482-0 (e-book). ISSN 1439-7358 (print), 2197-7100 (electronic). LCCN TJ213 .A253 2004. URL http://link.springer.com/content/pdf/10.1007/978-3-642-18482-6_25. Most of the chapters are based on the materials presented in the CNRS-NSF Workshop *Advances in Time-Delay Systems* held in Paris in January 22–24, 2003.

Tadmor:2004:PCD

- [Tad04] E. B. Tadmor. A Peierls criterion for deformation twinning at a mode II crack. In Attinger and Koumoutsakos [AK04], pages 157–165. CODEN LNCSA6. ISBN 3-540-21180-2 (print), 3-642-18756-0 (e-book). ISSN 1439-7358 (print), 2197-7100 (electronic). LCCN TA342 .M85 2004. URL http://link.springer.com/content/pdf/10.1007/978-3-642-18756-8_11. Proceedings of a Summer Program in Multi-Scale Modelling and Simulation held in Lugano, Switzerland, between August 4th and 30th, 2003.

Tadjouddine:2008:FCA

- [Tad08] Emmanuel M. Tadjouddine. On formal certification of AD transformations. In Bischof et al. [BBH⁺08], pages 23–33. CODEN LNCSA6. ISBN 3-540-68935-4 (print), 3-540-68942-7 (e-book). ISSN 1439-7358 (print), 2197-7100 (electronic). LCCN QA304 .I58 2008. URL http://link.springer.com/content/pdf/10.1007/978-3-540-68942-3_3.

Tai:2005:NPI

- [Tai05] Xue-Cheng Tai. Nonlinear positive interpolation operators for analysis with multilevel grids. In Kornhuber et al. [KHP⁺05], pages 477–484. CODEN LNCSA6. ISBN 3-540-22523-4 (print), 3-540-26825-1 (e-book). ISSN 1439-7358 (print), 2197-7100 (electronic). LCCN QA402.2 .I55 2003. URL http://link.springer.com/content/pdf/10.1007/3-540-26825-1_49. Papers from the 15th International Conference on Domain Decomposition, Freie Universität Berlin (FU), Berlin, Germany, July 21–25, 2003.

Taylor:2011:CME

- [Tay11] Mark A. Taylor. Conservation of mass and energy for the moist atmospheric primitive equations on unstructured grids. In Lauritzen et al. [LJTN11], pages 357–380. CODEN LNCSA6. ISBN 3-642-11639-6 (print), 3-642-11640-X (e-book). ISSN 1439-7358 (print), 2197-7100 (electronic). LCCN QC861.3 .N86 2011. URL http://link.springer.com/content/pdf/10.1007/978-3-642-11640-7_12. Proceedings of the colloquium *Numerical Techniques for Global Atmospheric Models* held at the National Center for Atmospheric Research (NCAR) in Boulder, Colorado, 1–13 June 2008.

Tyliszczak:2007:VDB

- [TB07] Artur Tyliszczak and Andrzej Boguslawski. LES of variable density bifurcating jets. In Kassinos et al. [KLIM07], pages 273–288. CODEN LNCSA6. ISBN 3-540-34233-8 (print), 3-540-34234-6 (e-book). ISSN 1439-7358 (print), 2197-7100 (electronic). LCCN TA357.5.T87 C66 2007. URL http://link.springer.com/content/pdf/10.1007/978-3-540-34234-2_20. Proceedings of the symposium on *Complex Effects in Large Eddy Simulation* held in Lemesos (Limassol), Cyprus, September 21–24, 2005.

Tönnis:2013:EFR

- [TBK13] Marcus Tönnis, Amal Benzina, and Gudrun Klinker. Experiences with a flexibly reconfigurable visualization system on software development and workplace ergonomics. In Bader et al. [BBW13], pages 223–240. ISBN 3-642-38761-6, 3-642-38762-4 (e-book). ISSN 1439-7358 (print), 2197-7100 (electronic). LCCN ????. URL http://link.springer.com/chapter/10.1007/978-3-642-38762-3_11/.

Tadjouddine:2006:IPV

- [TBP06] M. Tadjouddine, F. Bodman, and J. D. Pryce. Improving the performance of the vertex elimination algorithm for derivative calculation. In Bücker et al. [BCH⁺06], pages 111–120. CODEN LNCSA6. ISBN 3-540-28403-6 (print), 3-540-28438-9 (e-book). ISSN 1439-7358 (print), 2197-7100 (electronic). LCCN QA304 .I58 2006. URL http://link.springer.com/content/pdf/10.1007/3-540-28438-9_10. Proceedings of the Fourth International Conference on Automatic Differentiation, July 20–23, Chicago, Illinois.

Tiwari:2008:CCD

- [TD08] Sudarshan Tiwari and Christian Drumm. Coupling of the CFD and the droplet population balance equation with the finite pointset method. In Griebel and Schweitzer [GS08d], pages 315–334. CODEN LNCSA6. ISBN 3-540-79993-1 (print), 3-540-79994-X (e-book). ISSN 1439-7358 (print), 2197-7100 (electronic). LCCN ???? URL http://link.springer.com/content/pdf/10.1007/978-3-540-79994-8_18. Fourth International Workshop on Meshfree Methods for Partial Differential Equations held from September 17 to September 20, 2007 in Bonn, Germany.

Toulorge:2011:SPD

- [TD11a] Thomas Toulorge and Wim Desmet. Spectral properties of discontinuous Galerkin space operators on curved meshes. In Hesthaven and Rønquist [HR11], pages 495–502. CODEN LNCSA6. ISBN 3-642-15336-4 (print), 3-642-15337-2 (e-book). ISSN 1439-7358 (print), 2197-7100 (electronic). LCCN ???? URL http://link.springer.com/content/pdf/10.1007/978-3-642-15337-2_48.

Tromeur-Dervout:2011:ASA

- [TD11b] D. Tromeur-Dervout. Aitken–Schwarz acceleration not based on the mesh for CFD. In Tromeur-Dervout et al. [TDBEE11], pages 211–218. CODEN LNCSA6. ISBN 3-642-14437-3 (print), 3-642-14438-1 (e-book). ISSN 1439-7358 (print), 2197-7100 (electronic). LCCN ???? URL http://link.springer.com/content/pdf/10.1007/978-3-642-14438-7_22. Proceedings of the twentieth meeting, Parallel CFD 2008, held May 19–22, 2008 in Lyon, France.

Tromeur-Dervout:2011:PCF

- [TDBEE11] Damien Tromeur-Dervout, Gunther Brenner, David R. Emerson, and Jocelyne Erhel, editors. *Parallel Computational Fluid Dynamics 2008: Parallel Numerical Methods, Software Development and Applications*, volume 74 of *Lecture Notes in Computational Science and Engineering*. Springer-Verlag Inc., New York, NY, USA, 2011. CODEN LNCSA6. ISBN 3-642-14437-3 (print), 3-642-14438-1 (e-book). ISSN 1439-7358 (print), 2197-7100 (electronic). LCCN ???? URL <http://link.springer.com/book/10.1007/978-3-642-14438-7>; <http://www.springerlink.com/content/978-3-642-14438-7>. Proceedings of the twen-

tieth meeting, Parallel CFD 2008, held May 19–22, 2008 in Lyon, France.

Teresco:2006:PDL

- [TDF06] James D. Teresco, Karen D. Devine, and Joseph E. Flaherty. Partitioning and dynamic load balancing for the numerical solution of partial differential equations. In Bruaset and Tveito [BT06], pages 55–88. CODEN LNCSA6. ISBN 3-540-29076-1 (print), 3-540-31619-1 (e-book). ISSN 1439-7358 (print), 2197-7100 (electronic). LCCN QA377.N87 2006. URL http://link.springer.com/content/pdf/10.1007/3-540-31619-1_2.

Tromeur-Dervout:2011:AIS

- [TDV11] Damien Tromeur-Dervout and Yuri Vassilevski. Acceleration of iterative solution of series of systems due to better initial guess. In Tromeur-Dervout et al. [TDBEE11], pages 29–40. CODEN LNCSA6. ISBN 3-642-14437-3 (print), 3-642-14438-1 (e-book). ISSN 1439-7358 (print), 2197-7100 (electronic). LCCN ???? URL http://link.springer.com/content/pdf/10.1007/978-3-642-14438-7_3. Proceedings of the twentieth meeting, Parallel CFD 2008, held May 19–22, 2008 in Lyon, France.

Tadjouddine:2006:ADS

- [TF06] Mohamed Tadjouddine and Shaun A. Forth. Adjoint differentiation of a structural dynamics solver. In Bückner et al. [BCH⁺06], pages 309–319. CODEN LNCSA6. ISBN 3-540-28403-6 (print), 3-540-28438-9 (e-book). ISSN 1439-7358 (print), 2197-7100 (electronic). LCCN QA304.I58 2006. URL http://link.springer.com/content/pdf/10.1007/3-540-28438-9_27. Proceedings of the Fourth International Conference on Automatic Differentiation, July 20–23, Chicago, Illinois.

Tong:2008:PGS

- [TG08] C. Tong and F. Graziani. A practical global sensitivity analysis methodology for multi-physics applications. In Graziani [Gra08b], pages 277–299. CODEN LNCSA6. ISBN 3-540-77361-4 (print), 3-540-77362-2 (e-book). ISSN 1439-7358 (print), 2197-7100 (electronic). LCCN ???? URL http://link.springer.com/content/pdf/10.1007/978-3-540-77362-7_12. Proceedings of the 2006 Computational Methods in Transport (CMTW) conference.

Tuncer:2009:PCF

- [TGEM09] Ismail H. Tuncer, Ülgen Gülcat, David R. Emerson, and Kenichi Matsuno, editors. *Parallel Computational Fluid Dynamics 2007: Implementations and Experiences on Large Scale and Grid Computing*, volume 67 of *Lecture Notes in Computational Science and Engineering*. Springer-Verlag Inc., New York, NY, USA, 2009. CODEN LNCSA6. ISBN 3-540-92743-3 (print), 3-540-92744-1 (e-book). ISSN 1439-7358 (print), 2197-7100 (electronic). LCCN ???? URL <http://link.springer.com/book/10.1007/978-3-540-92744-0>; <http://www.springerlink.com/content/978-3-540-92744-0>. Parallel CFD 2007 was held in Antalya, Turkey, from May 21 to 24, 2007.

Trias:2009:DTN

- [TGSS09] F. X. Trias, A. Gorobets, M. Soria, and M. Soria. DNS of turbulent natural convection flows on the MareNostrum super-computer. In Tuncer et al. [TGEM09], pages 267–274. CODEN LNCSA6. ISBN 3-540-92743-3 (print), 3-540-92744-1 (e-book). ISSN 1439-7358 (print), 2197-7100 (electronic). LCCN ???? URL http://link.springer.com/content/pdf/10.1007/978-3-540-92744-0_33. Parallel CFD 2007 was held in Antalya, Turkey, from May 21 to 24, 2007.

Treiber:2003:ASM

- [TH03] Martin Treiber and Dirk Helbing. An adaptive smoothing method for traffic state identification from incomplete information. In Emmerich et al. [ENS03], page ?? CODEN LNCSA6. ISBN 3-540-40367-1. ISSN 1439-7358 (print), 2197-7100 (electronic). LCCN QC173.4.I57 I57 2003. URL <http://www.loc.gov/catdir/enhancements/fy0818/2003060231-d.html>. Papers from the workshop on “Computational Physics of Transport and Interfacial Dynamics”, Dresden, February 25–March 8, 2002.

Turek:2006:PNB

- [TH06] Stefan Turek and Jaroslav Hron. Proposal for numerical benchmarking of fluid-structure interaction between an elastic object and laminar incompressible flow. In Bungartz and Schäfer [BS06], pages 371–385. CODEN LNCSA6. ISBN 3-540-34595-7 (print), 3-540-34596-5 (e-book). ISSN 1439-7358 (print), 2197-7100 (electronic). LCCN TA357.5.F58

F586 200. URL http://link.springer.com/content/pdf/10.1007/3-540-34596-5_15. Proceedings of a workshop on fluid-structure interactions held in Hohenwart, Germany, in October 2005.

Theodoropoulos:2011:OLC

- [The11] Constantinos Theodoropoulos. Optimisation and linear control of large scale nonlinear systems: a review and a suite of model reduction-based techniques. In Gorban and Roose [GR11b], pages 37–61. CODEN LNCSA6. ISBN 3-642-14940-5 (print), 3-642-14941-3 (e-book). ISSN 1439-7358 (print), 2197-7100 (electronic). LCCN QA401 .C67 2011. URL http://link.springer.com/content/pdf/10.1007/978-3-642-14941-2_3. Extended versions of selected talks given at the international research workshop: *Coping with Complexity: Model Reduction and Data Analysis*, Ambleside, Lake District, UK, August 31–September 4, 2009 in conjunction with the A4A6, the *6th Conference on Algorithms for Approximation*.

Thijssen:2000:MII

- [Thi00] J. M. Thijssen. Multigrid with an immersed interface. In Dick et al. [DRV00], pages 242–248. CODEN LNCSA6. ISBN 3-540-67157-9 (print), 3-642-58312-1 (e-book). ISSN 1439-7358 (print), 2197-7100 (electronic). LCCN QA377 .E94 1999. URL http://link.springer.com/chapter/10.1007/978-3-642-58312-4_33/.

Turek:2010:NSB

- [THM+10] S. Turek, J. Hron, M. Mádlík, M. Razzaq, and H. Wobker. Numerical simulation and benchmarking of a monolithic multi-grid solver for fluid-structure interaction problems with application to hemodynamics. In Bungartz et al. [BMS10], pages 193–220. CODEN LNCSA6. ISBN 3-642-14205-2 (print), 3-642-14206-0 (e-book). ISSN 1439-7358 (print), 2197-7100 (electronic). LCCN TA357.5.F58 F586b 2010. URL http://link.springer.com/content/pdf/10.1007/978-3-642-14206-2_8. Selected contributions from the *First International Workshop on Computational Engineering — special topic Fluid-Structure Interactions* held in Herrsching, Germany, in October 2009.

Turek:2010:NBF

- [THR⁺10] S. Turek, J. Hron, M. Razzaq, H. Wobker, and M. Schäfer. Numerical benchmarking of fluid-structure interaction: a comparison of different discretization and solution approaches. In Bungartz et al. [BMS10], pages 413–424. CODEN LNCSA6. ISBN 3-642-14205-2 (print), 3-642-14206-0 (e-book). ISSN 1439-7358 (print), 2197-7100 (electronic). LCCN TA357.5.F58 F586b 2010. URL http://link.springer.com/content/pdf/10.1007/978-3-642-14206-2_15. Selected contributions from the *First International Workshop on Computational Engineering — special topic Fluid-Structure Interactions* held in Herrsching, Germany, in October 2009.

Thuburn:2011:CDC

- [Thu11a] John Thuburn. Conservation in dynamical cores: What, how and why? In Lauritzen et al. [LJTN11], pages 345–355. CODEN LNCSA6. ISBN 3-642-11639-6 (print), 3-642-11640-X (e-book). ISSN 1439-7358 (print), 2197-7100 (electronic). LCCN QC861.3 .N86 2011. URL http://link.springer.com/content/pdf/10.1007/978-3-642-11640-7_11. Proceedings of the colloquium *Numerical Techniques for Global Atmospheric Models* held at the National Center for Atmospheric Research (NCAR) in Boulder, Colorado, 1–13 June 2008.

Thuburn:2011:HDS

- [Thu11b] John Thuburn. Horizontal discretizations: Some basic ideas. In Lauritzen et al. [LJTN11], pages 43–57. CODEN LNCSA6. ISBN 3-642-11639-6 (print), 3-642-11640-X (e-book). ISSN 1439-7358 (print), 2197-7100 (electronic). LCCN QC861.3 .N86 2011. URL http://link.springer.com/content/pdf/10.1007/978-3-642-11640-7_3. Proceedings of the colloquium *Numerical Techniques for Global Atmospheric Models* held at the National Center for Atmospheric Research (NCAR) in Boulder, Colorado, 1–13 June 2008.

Thuburn:2011:SBD

- [Thu11c] John Thuburn. Some basic dynamics relevant to the design of atmospheric model dynamical cores. In Lauritzen et al. [LJTN11], pages 3–27. CODEN LNCSA6. ISBN 3-642-11639-6 (print), 3-642-11640-X (e-book). ISSN 1439-7358 (print), 2197-7100 (electronic). LCCN QC861.3 .N86

2011. URL http://link.springer.com/content/pdf/10.1007/978-3-642-11640-7_1. Proceedings of the colloquium *Numerical Techniques for Global Atmospheric Models* held at the National Center for Atmospheric Research (NCAR) in Boulder, Colorado, 1–13 June 2008.

Thuburn:2011:VDS

[Thu11d]

John Thuburn. Vertical discretizations: Some basic ideas. In Lauritzen et al. [LJTN11], pages 59–74. CODEN LNCSA6. ISBN 3-642-11639-6 (print), 3-642-11640-X (e-book). ISSN 1439-7358 (print), 2197-7100 (electronic). LCCN QC861.3 .N86 2011. URL http://link.springer.com/content/pdf/10.1007/978-3-642-11640-7_4. Proceedings of the colloquium *Numerical Techniques for Global Atmospheric Models* held at the National Center for Atmospheric Research (NCAR) in Boulder, Colorado, 1–13 June 2008.

Takahashi:2009:PCI

[TI09]

Shun Takahashi and Takashi Ishida. Parallel computation of incompressible flow using building-cube method. In Tuncer et al. [TGEM09], pages 195–200. CODEN LNCSA6. ISBN 3-540-92743-3 (print), 3-540-92744-1 (e-book). ISSN 1439-7358 (print), 2197-7100 (electronic). LCCN ???? URL http://link.springer.com/content/pdf/10.1007/978-3-540-92744-0_24. Parallel CFD 2007 was held in Antalya, Turkey, from May 21 to 24, 2007.

Takahashi:2011:LSC

[TIN⁺11]

Shun Takahashi, Takashi Ishida, Kazuhiro Nakahashi, Hiroaki Kobayashi, and Koki Okabe. Large scaled computation of incompressible flows on Cartesian mesh using a vector-parallel supercomputer. In Tromeur-Dervout et al. [TDBEE11], pages 331–338. CODEN LNCSA6. ISBN 3-642-14437-3 (print), 3-642-14438-1 (e-book). ISSN 1439-7358 (print), 2197-7100 (electronic). LCCN ???? URL http://link.springer.com/content/pdf/10.1007/978-3-642-14438-7_35. Proceedings of the twentieth meeting, Parallel CFD 2008, held May 19–22, 2008 in Lyon, France.

Tischendorf:2001:MDC

[Tis01]

C. Tischendorf. Model design criteria for integrated circuits to have a unique solution and good numerical properties. In van Rienen et al. [vRGH01], pages 179–198. CODEN LNCSA6.

ISBN 3-540-42173-4 (softcover), 3-642-56470-4 (e-book). ISSN 1439-7358 (print), 2197-7100 (electronic). LCCN TK5 .S35 2001. URL http://link.springer.com/content/pdf/10.1007/978-3-642-56470-3_19. Selected contributions presented at the 3rd International Workshop on Scientific Computing in Electrical Engineering.

Tiwari:2002:FPM

- [TK02] Sudarshan Tiwari and Jörg Kuhnert. Finite pointset method based on the projection method for simulations of the incompressible Navier–Stokes equations. In Griebel and Schweitzer [GS02b], pages 373–387. CODEN LNCSA6. ISBN 3-540-43891-2 (print), 3-642-56103-9 (e-book). ISSN 1439-7358 (print), 2197-7100 (electronic). LCCN QA377 .M45 2003. URL http://link.springer.com/content/pdf/10.1007/978-3-642-56103-0_26. Proceedings of a workshop on Meshfree Methods for Partial Differential Equations, Institut für Angewandte Mathematik, Rheinische Friedrich-Wilhelms Universität Bonn, September 11–14, 2001.

Tiwari:2005:NSS

- [TK05] Sudarshan Tiwari and Jörg Kuhnert. A numerical scheme for solving incompressible and low Mach number flows by the finite pointset method. In Griebel and Schweitzer [GS05], pages 191–206. CODEN LNCSA6. ISBN 3-540-23026-2 (print), 3-540-27099-X (e-book). ISSN 1439-7358 (print), 2197-7100 (electronic). LCCN QA377 .M452 2005. URL http://link.springer.com/content/pdf/10.1007/3-540-27099-X_11. Proceedings of the Second International Workshop on Meshfree Methods for Partial Differential Equations, Institut für Numerische Simulation Rheinische Friedrich–Wilhelms Universität Bonn, September 15–17, 2003.

Tiwari:2011:CNS

- [TK11] Sudarshan Tiwari and Axel Klar. Coupling of the Navier–Stokes and the Boltzmann equations with a meshfree particle and kinetic particle methods for a micro cavity. In Griebel and Schweitzer [GS11c], pages 155–171. CODEN LNCSA6. ISBN 3-642-16228-2 (print), 3-642-16229-0 (e-book). ISSN 1439-7358 (print), 2197-7100 (electronic). LCCN ???? URL http://link.springer.com/content/pdf/10.1007/978-3-642-16229-9_10. Proceedings of the Fifth International Workshop on Meshfree Methods for Partial Dif-

ferential Equations held from August 17 to August 19, 2009 in Bonn, Germany.

Thole:2000:SVI

- [TKG⁺00] Clemens-August Thole, Otto Kolp, Hans Georg Galbas, Stefanos Vlachoutsis, Heinrich Werner, Jürgen Wind, Jan Clinckemahille, and Martin Göbel. SIM-VR: Interactive crash simulation. In Engquist et al. [EJHS00], pages 135–140. CODEN LNCSA6. ISBN 3-540-67264-8 (print), 3-642-57313-4 (e-book). ISSN 1439-7358 (print), 2197-7100 (electronic). LCCN QA76.9.C65 S535 2000. URL http://link.springer.com/chapter/10.1007/978-3-642-57313-2_15/.

Tiwari:2014:SMC

- [TKH14] Sudarshan Tiwari, Axel Klar, and Steffen Hardt. Simulations of micro channel gas flows with domain decomposition technique for kinetic and fluid dynamics equations. In Erhel et al. [EGH⁺14], pages 227–236. ISBN 3-319-05788-X (paperback), 3-319-05789-8 (e-book). ISSN 1439-7358 (print), 2197-7100 (electronic). LCCN QA71-90. URL http://link.springer.com/chapter/10.1007/978-3-319-05789-7_19/.

Tu:2006:TFR

- [TL06] Yaoquan Tu and Aatto Laaksonen. Towards fast and reliable quantum chemical modelling of macromolecules. In Leimkuhler et al. [LCE⁺06], pages 315–341. CODEN LNCSA6. ISBN 3-540-25542-7 (print), 3-540-31618-3 (e-book). ISSN 1439-7358 (print), 2197-7100 (electronic). LCCN QP517.M3 N49 2006. URL http://link.springer.com/content/pdf/10.1007/3-540-31618-3_17. Papers from the fourth edition of *Algorithms for Macromolecular Modelling*, Leicester, UK August 2004.

Tu:2014:FDA

- [TL14] Xuemin Tu and Jing Li. A FETI-DP algorithm for incompressible Stokes equations with continuous pressures. In Erhel et al. [EGH⁺14], pages 157–165. ISBN 3-319-05788-X (paperback), 3-319-05789-8 (e-book). ISSN 1439-7358 (print), 2197-7100 (electronic). LCCN QA71-90. URL http://link.springer.com/chapter/10.1007/978-3-319-05789-7_12/.

Tessicini:2007:SSC

- [TLL07] F. Tessicini, N. Li, and M. A. Leschziner. Simulation of separation from curved surfaces with combined LES and RANS schemes. In Kassinos et al. [KLIM07], pages 305–324. CODEN LNCSA6. ISBN 3-540-34233-8 (print), 3-540-34234-6 (e-book). ISSN 1439-7358 (print), 2197-7100 (electronic). LCCN TA357.5.T87 C66 2007. URL http://link.springer.com/content/pdf/10.1007/978-3-540-34234-2_22. Proceedings of the symposium on *Complex Effects in Large Eddy Simulation* held in Lemesos (Limassol), Cyprus, September 21–24, 2005.

Thorvaldsen:2003:FEM

- [TLO03] T. Thorvaldsen, H. P. Langtangen, and H. Osnes. Finite element modeling of elastic structures. In Langtangen and Tveito [LT03], pages 507–576. CODEN LNCSA6. ISBN 3-540-01438-1 (print), 3-642-18237-2 (e-book). ISSN 1439-7358 (print), 2197-7100 (electronic). LCCN QA377 .A45 2003. URL http://link.springer.com/content/pdf/10.1007/978-3-642-18237-2_13.

Tian:2002:NMM

- [TLY02] Rong Tian, Maotian Luan, and Qing Yang. A new meshless method- finite-cover based element free method. In Griebel and Schweitzer [GS02b], pages 359–371. CODEN LNCSA6. ISBN 3-540-43891-2 (print), 3-642-56103-9 (e-book). ISSN 1439-7358 (print), 2197-7100 (electronic). LCCN QA377 .M45 2003. URL http://link.springer.com/content/pdf/10.1007/978-3-642-56103-0_25. Proceedings of a workshop on Meshfree Methods for Partial Differential Equations, Institut für Angewandte Mathematik, Rheinische Friedrich-Wilhelms Universität Bonn, September 11–14, 2001.

Tharakan:2015:SKM

- [TMB15] S. Tharakan, W. B. March, and G. Biros. Scalable kernel methods for uncertainty quantification. In Mehl et al. [MBS15], pages 3–28. ISBN 3-319-22996-6, 3-319-22997-4 (e-book). LCCN QA71-90; TA329. URL http://link.springer.com/chapter/10.1007/978-3-319-22997-3_1/.

Tuckerman:2002:NRS

- [TMPM02] Mark E. Tuckerman, Peter Minary, Katianna Pihakari, and Glenn J. Martyna. A new reciprocal space based method for

treating long range interactions in ab initio and force-field based calculations for surfaces, wires, and clusters. In Schlick and Gan [SG02], pages 381–410. CODEN LNCSA6. ISBN 3-540-43756-8 (print), 3-642-56080-6 (e-book). ISSN 1439-7358 (print), 2197-7100 (electronic). LCCN QP517.M3 A384 2000. URL http://link.springer.com/content/pdf/10.1007/978-3-642-56080-4_16.

Takizawa:2010:CMA

- [TMWT10] K. Takizawa, C. Moorman, S. Wright, and T. E. Tezduyar. Computer modeling and analysis of the Orion spacecraft parachutes. In Bungartz et al. [BMS10], pages 53–81. CODEN LNCSA6. ISBN 3-642-14205-2 (print), 3-642-14206-0 (e-book). ISSN 1439-7358 (print), 2197-7100 (electronic). LCCN TA357.5.F58 F586b 2010. URL http://link.springer.com/content/pdf/10.1007/978-3-642-14206-2_3. Selected contributions from the *First International Workshop on Computational Engineering — special topic Fluid-Structure Interactions* held in Herrsching, Germany, in October 2009.

Tadano:2007:AGF

- [TN07] Yuichi Tadano and Hirohisa Noguchi. Assessment of generalized finite elements in nonlinear analysis. In Griebel and Schweitzer [GS07b], pages 235–247. CODEN LNCSA6. ISBN 3-540-46214-7 (print), 3-540-46222-8 (e-book). ISSN 1439-7358 (print), 2197-7100 (electronic). LCCN QA377 .M45 2005. URL http://link.springer.com/content/pdf/10.1007/978-3-540-46222-4_14. Third international workshop on Meshfree Methods for Partial Differential Equations held from September 12 to September 15, 2005 in Bonn, Germany.

Taoutaou:2004:RST

- [TNG04] Damia Taoutaou, Silviu-Iulian Niculescu, and Keqin Gu. Robust stability of teleoperation schemes subject to constant and time-varying communication delays. In Niculescu and Gu [NG04], pages 327–338. CODEN LNCSA6. ISBN 3-540-20890-9 (print), 3-642-18482-0 (e-book). ISSN 1439-7358 (print), 2197-7100 (electronic). LCCN TJ213 .A253 2004. URL http://link.springer.com/content/pdf/10.1007/978-3-642-18482-6_24. Most of the chapters are based on the materials presented in the CNRS-NSF Workshop *Advances in Time-Delay Systems* held in Paris in January 22–24, 2003.

Tobiska:2009:RRL

- [Tob09] Lutz Tobiska. Recent results on local projection stabilization for convection-diffusion and flow problems. In Hegarty et al. [HKOS09], pages 55–75. CODEN LNCSA6. ISBN 3-642-00604-3 (print), 3-642-00605-1 (e-book). ISSN 1439-7358 (print), 2197-7100 (electronic). LCCN ????. URL http://link.springer.com/content/pdf/10.1007/978-3-642-00605-0_4.

Tarhan:2009:PNSa

- [TOG09a] Erhan Tarhan, Yüüksel Ortakaya, and Emre Gurdamar. Parallel Navier–Stokes solutions of a wing-flap configuration on structured multi-block oversetting grids. In Tuncer et al. [TGEM09], pages 209–216. CODEN LNCSA6. ISBN 3-540-92743-3 (print), 3-540-92744-1 (e-book). ISSN 1439-7358 (print), 2197-7100 (electronic). LCCN ????. URL http://link.springer.com/content/pdf/10.1007/978-3-540-92744-0_26. Parallel CFD 2007 was held in Antalya, Turkey, from May 21 to 24, 2007.

Tarhan:2009:PNSb

- [TOG09b] Erhan Tarhan, Yüüksel Ortakaya, and Emre Gurdamar. Parallel Navier–Stokes solutions of NASA 65° delta-wing. In Tuncer et al. [TGEM09], pages 217–225. CODEN LNCSA6. ISBN 3-540-92743-3 (print), 3-540-92744-1 (e-book). ISSN 1439-7358 (print), 2197-7100 (electronic). LCCN ????. URL http://link.springer.com/content/pdf/10.1007/978-3-540-92744-0_27. Parallel CFD 2007 was held in Antalya, Turkey, from May 21 to 24, 2007.

Tornberg:2005:NSD

- [Tor05] Anna-Karin Tornberg. Numerical simulations of the dynamics of fiber suspensions. In Engquist et al. [ERL05], pages 275–289. CODEN LNCSA6. ISBN 3-540-25335-1 (print), 3-540-26444-2 (e-book). ISSN 1439-7358 (print), 2197-7100 (electronic). LCCN TA347.F5 M85 2005. URL http://link.springer.com/content/pdf/10.1007/3-540-26444-2_15. Proceedings of *Multiscale Methods in Science and Engineering*, Uppsala, Sweden, January 26–28, 2004.

Thompson:2011:NSP

- [TPA11] Jason D. Thompson, Christian F. Pinzn, and Ramesh K. Agarwal. Numerical study of pulsatile flow through models

of vascular stenoses with physiological waveform of the heart. In Tromeur-Dervout et al. [TDBEE11], pages 357–368. CODEN LNCSA6. ISBN 3-642-14437-3 (print), 3-642-14438-1 (e-book). ISSN 1439-7358 (print), 2197-7100 (electronic). LCCN ????. URL http://link.springer.com/content/pdf/10.1007/978-3-642-14438-7_38. Proceedings of the twentieth meeting, Parallel CFD 2008, held May 19–22, 2008 in Lyon, France.

Thurey:2009:HPT

- [TPR09] Nils Thürey, T. Pohl, and U. Rüde. Hybrid parallelization techniques for lattice Boltzmann free surface flows. In Tuncer et al. [TGEM09], pages 179–186. CODEN LNCSA6. ISBN 3-540-92743-3 (print), 3-540-92744-1 (e-book). ISSN 1439-7358 (print), 2197-7100 (electronic). LCCN ????. URL http://link.springer.com/content/pdf/10.1007/978-3-540-92744-0_22. Parallel CFD 2007 was held in Antalya, Turkey, from May 21 to 24, 2007.

Teranishi:2007:HPP

- [TR07] Keita Teranishi and Padma Raghavan. A hybrid parallel preconditioner using incomplete Cholesky factorization and sparse approximate inversion. In Widlund and Keyes [WK07], pages 755–762. CODEN LNCSA6. ISBN 3-540-34468-3 (print), 3-540-34469-1 (e-book). ISSN 1439-7358 (print), 2197-7100 (electronic). LCCN QA402.2 .I55 2005. URL http://link.springer.com/content/pdf/10.1007/978-3-540-34469-8_94. Proceedings of the *Sixteenth International Conference on Domain Decomposition Methods*, New York City, January 11–15, 2005.

Tabata:2002:MMN

- [TS02] Masahisa Tabata and Atsushi Suzuki. Mathematical modeling and numerical simulation of Earth’s mantle convection. In Babuška et al. [BCM02], pages 219–231. CODEN LNCSA6. ISBN 3-540-42399-0 (print), 3-642-56288-4 (e-book). ISSN 1439-7358 (print), 2197-7100 (electronic). LCCN QA808.2 .I59 2000. URL http://link.springer.com/content/pdf/10.1007/978-3-642-56288-4_16.

Thiem:2015:DTW

- [TS15] C. Thiem and M. Schäfer. Dynamic two-way parallelization of non-intrusive methods for uncertainty quantification. In Mehl et al. [MBS15], pages 99–114. ISBN

3-319-22996-6, 3-319-22997-4 (e-book). LCCN QA71-90; TA329. URL http://link.springer.com/chapter/10.1007/978-3-319-22997-3_6/.

Tsantilis:2004:PBM

- [Tsa04] Stavros Tsantilis. Population balance modeling of synthesis of nanoparticles in aerosol flame reactors. In Attinger and Koumoutsakos [AK04], pages 247–257. CODEN LNCSA6. ISBN 3-540-21180-2 (print), 3-642-18756-0 (e-book). ISSN 1439-7358 (print), 2197-7100 (electronic). LCCN TA342 .M85 2004. URL http://link.springer.com/content/pdf/10.1007/978-3-642-18756-8_19. Proceedings of a Summer Program in Multi-Scale Modelling and Simulation held in Lugano, Switzerland, between August 4th and 30th, 2003.

Tscharnuter:1999:NSV

- [Tsc99] D. Tscharnuter. Numerical simulation of vibrations for the design of a rear axle. In Bungartz et al. [BDZ99], pages 167–176. CODEN LNCSA6. ISBN 3-540-65730-4 (print), 3-642-60155-3 (e-book). ISSN 1439-7358 (print), 2197-7100 (electronic). LCCN Q183.9.I58 1998. URL http://link.springer.com/chapter/10.1007/978-3-642-60155-2_14/.

Tscharnuter:2002:ODP

- [Tsc02] D Tscharnuter. Optimal design of the power train of vehicles: Modelling, simulation and optimization. In Breuer et al. [BDZ02], pages 313–324. CODEN LNCSA6. ISBN 3-540-42946-8 (print), 3-642-55919-0 (e-book). ISSN 1439-7358 (print), 2197-7100 (electronic). LCCN Q183.9 .I58 2001. URL http://link.springer.com/content/pdf/10.1007/978-3-642-55919-8_35.

Terrel:2012:FEI

- [TSKK12] Andy R. Terrel, L. Ridgway Scott, Matthew Gregg Knep-ley, and Robert C. Kirby. Finite elements for incompressible fluids. In Logg et al. [LMW12a], pages 385–397. CODEN LNCSA6. ISBN 3-642-23098-9 (print), 3-642-23099-7 (e-book). ISSN 1439-7358 (print), 2197-7100 (electronic). LCCN ???? URL http://link.springer.com/content/pdf/10.1007/978-3-642-23099-8_20. The software developed by the FEniCS Project is free for all to use and modify (licensed under the GNU (L)GPL), and so is this book.

Tokareva:2014:HOS

- [TSM14] Svetlana Tokareva, Christoph Schwab, and Siddhartha Mishra. High order SFV and mixed SDG/FV methods for the uncertainty quantification in multidimensional conservation laws. In Abgrall et al. [ABC⁺14], pages 109–133. ISBN 3-319-05454-6 (paperback), 3-319-05455-4 (e-book). ISSN 1439-7358 (print), 2197-7100 (electronic). LCCN QA374 .A384 2014. URL http://link.springer.com/chapter/10.1007/978-3-319-05455-1_7/.

Tezduyar:2006:MFS

- [TSSA06] Tayfun E. Tezduyar, Sunil Sathe, Keith Stein, and Luca Aureli. Modeling of fluid-structure interactions with the space-time techniques. In Bungartz and Schäfer [BS06], pages 50–81. CODEN LNCSA6. ISBN 3-540-34595-7 (print), 3-540-34596-5 (e-book). ISSN 1439-7358 (print), 2197-7100 (electronic). LCCN TA357.5.F58 F586 200. URL http://link.springer.com/content/pdf/10.1007/3-540-34596-5_3. Proceedings of a workshop on fluid-structure interactions held in Hohenwart, Germany, in October 2005.

Tribbia:2011:WHC

- [TT11] Joseph Tribbia and Roger Temam. Waves, hyperbolicity and characteristics. In Lauritzen et al. [LJTN11], pages 29–42. CODEN LNCSA6. ISBN 3-642-11639-6 (print), 3-642-11640-X (e-book). ISSN 1439-7358 (print), 2197-7100 (electronic). LCCN QC861.3 .N86 2011. URL http://link.springer.com/content/pdf/10.1007/978-3-642-11640-7_2. Proceedings of the colloquium *Numerical Techniques for Global Atmospheric Models* held at the National Center for Atmospheric Research (NCAR) in Boulder, Colorado, 1–13 June 2008.

Tanushev:2012:CFD

- [TT12] Nicolay M. Tanushev and Yen-Hsi Richard Tsai. A coupled finite difference–Gaussian beam method for high frequency wave propagation. In Engquist et al. [ERT12], pages 401–420. CODEN LNCSA6. ISBN 3-642-21942-X (print), 3-642-21943-8 (e-book). ISSN 1439-7358 (print), 2197-7100 (electronic). LCCN ???? URL http://link.springer.com/content/pdf/10.1007/978-3-642-21943-6_16.

Boonkkamp:2015:HCF

- [tTBLvDP15] J. H. M. ten Thije Boonkkamp, L. Liu, J. van Dijk, and K. S. C. Peerenboom. Harmonic complete flux schemes for conservation laws with discontinuous coefficients. In Abdulle et al. [ADK⁺15], pages 95–103. ISBN 3-319-10704-6 (paperback), 3-319-10705-4 (e-book). ISSN 1439-7358 (print), 2197-7100 (electronic). LCCN QA76.9.M35 .E976 2015. URL http://link.springer.com/chapter/10.1007/978-3-319-10705-9_9/.

Tu:2007:TLB

- [Tu07] Xuemin Tu. Three-level BDDC. In Widlund and Keyes [WK07], pages 437–444. CODEN LNCSA6. ISBN 3-540-34468-3 (print), 3-540-34469-1 (e-book). ISSN 1439-7358 (print), 2197-7100 (electronic). LCCN QA402.2 .I55 2005. URL http://link.springer.com/content/pdf/10.1007/978-3-540-34469-8_54. Proceedings of the *Sixteenth International Conference on Domain Decomposition Methods*, New York City, January 11–15, 2005.

Turek:1999:CO

- [Tur99a] Stefan Turek. Conclusions and outlook. In *Efficient Solvers for Incompressible Flow Problems: an Algorithmic and Computational Approach* [Tur99c], pages 335–339. CODEN LNCSA6. ISBN 3-540-65433-X (hardcover), 3-642-58393-8 (e-book). ISSN 1439-7358 (print), 2197-7100 (electronic). LCCN TA357 .T895 1999. URL http://link.springer.com/chapter/10.1007/978-3-642-58393-3_5/. Includes CD-ROM.

Turek:1999:DNS

- [Tur99b] Stefan Turek. Derivation of Navier–Stokes solvers. In *Efficient Solvers for Incompressible Flow Problems: an Algorithmic and Computational Approach* [Tur99c], pages 27–96. CODEN LNCSA6. ISBN 3-540-65433-X (hardcover), 3-642-58393-8 (e-book). ISSN 1439-7358 (print), 2197-7100 (electronic). LCCN TA357 .T895 1999. URL http://link.springer.com/chapter/10.1007/978-3-642-58393-3_2/. Includes CD-ROM.

Turek:1999:ESI

- [Tur99c] Stefan Turek, editor. *Efficient Solvers for Incompressible Flow Problems: an Algorithmic and Computational Ap-*

proach, volume 6 of *Lecture Notes in Computational Science and Engineering*. Springer-Verlag Inc., New York, NY, USA, 1999. CODEN LNCSA6. ISBN 3-540-65433-X (hardcover), 3-642-58393-8 (e-book). ISSN 1439-7358 (print), 2197-7100 (electronic). LCCN TA357 .T895 1999. URL <http://link.springer.com/book/10.1007/978-3-642-58393-3>; <http://www.springerlink.com/content/978-3-642-58393-3>.
3. Includes CD-ROM.

Turek:1999:EC

[Tur99d] Stefan Turek. The enclosed CDROM. In *Efficient Solvers for Incompressible Flow Problems: an Algorithmic and Computational Approach* [Tur99c], pages 341–342. CODEN LNCSA6. ISBN 3-540-65433-X (hardcover), 3-642-58393-8 (e-book). ISSN 1439-7358 (print), 2197-7100 (electronic). LCCN TA357 .T895 1999. URL http://link.springer.com/accesspage/chapter/10.1007/978-3-642-58393-3_6. Includes CD-ROM.

Turek:1999:MCR

[Tur99e] Stefan Turek. Motivation for current research. In *Efficient Solvers for Incompressible Flow Problems: an Algorithmic and Computational Approach* [Tur99c], pages 1–26. CODEN LNCSA6. ISBN 3-540-65433-X (hardcover), 3-642-58393-8 (e-book). ISSN 1439-7358 (print), 2197-7100 (electronic). LCCN TA357 .T895 1999. URL http://link.springer.com/chapter/10.1007/978-3-642-58393-3_1/. Includes CD-ROM.

Turek:1999:NCN

[Tur99f] Stefan Turek. Numerical comparisons of Navier–Stokes solvers. In *Efficient Solvers for Incompressible Flow Problems: an Algorithmic and Computational Approach* [Tur99c], pages 281–333. CODEN LNCSA6. ISBN 3-540-65433-X (hardcover), 3-642-58393-8 (e-book). ISSN 1439-7358 (print), 2197-7100 (electronic). LCCN TA357 .T895 1999. URL http://link.springer.com/chapter/10.1007/978-3-642-58393-3_4/. Includes CD-ROM.

Turek:1999:OMC

[Tur99g] Stefan Turek. Other mathematical components. In *Efficient Solvers for Incompressible Flow Problems: an Algorithmic and Computational Approach* [Tur99c], pages 97–280. CODEN

LNCSA6. ISBN 3-540-65433-X (hardcover), 3-642-58393-8 (e-book). ISSN 1439-7358 (print), 2197-7100 (electronic). LCCN TA357 .T895 1999. URL http://link.springer.com/chapter/10.1007/978-3-642-58393-3_3/. Includes CD-ROM.

Turek:2000:THP

- [Tur00] Dave Turek. Technologies for high-performance computing in the next millennium. In Engquist et al. [EJHS00], page 62. CODEN LNCSA6. ISBN 3-540-67264-8 (print), 3-642-57313-4 (e-book). ISSN 1439-7358 (print), 2197-7100 (electronic). LCCN QA76.9.C65 S535 2000. URL http://link.springer.com/accesspage/chapter/10.1007/978-3-642-57313-2_5.

Tolstorukov:1999:MMN

- [TV99] Michael Ye. Tolstorukov and Konstantin M. Virnik. Mathematical model of the nucleic acids conformational transitions with hysteresis over hydration-dehydration cycle. In Deuffhard et al. [DHL⁺99], pages 116–126. CODEN LNCSA6. ISBN 3-540-63242-5 (print), 3-642-58360-1 (e-book). ISSN 1439-7358 (print), 2197-7100 (electronic). LCCN QP517.M65 I56 1999. URL http://link.springer.com/chapter/10.1007/978-3-642-58360-5_6/.

Tomic:2014:SMH

- [TV14] Stanko Tomić and Nenad Vukmirović. Symmetries in multiband Hamiltonians for semiconductor quantum dots. In Ehrhardt and Koprucki [EK14], pages 87–126. ISBN 3-319-01426-9, 3-319-01427-7 (e-book). ISSN 1439-7358 (print), 2197-7100 (electronic). LCCN QA71-90; QA300. URL http://link.springer.com/chapter/10.1007/978-3-319-01427-2_3/.

Turek:2003:FBM

- [TW03] Stefan Turek and Decheng Wan. The fictitious boundary method for the implicit treatment of Dirichlet boundary conditions with applications to incompressible flow simulations. In Bänsch [Bän03], pages 37–68. CODEN LNCSA6. ISBN 3-642-62406-5 (print), 3-642-19014-6 (e-book). ISSN 1439-7358 (print), 2197-7100 (electronic). LCCN ????. URL http://link.springer.com/content/pdf/10.1007/978-3-642-19014-8_3.

Taron:2012:CHM

- [TWW12] Joshua Taron, Norihiro Watanabe, and Wenqing Wang. Consolidation (H^n M) processes. In Kolditz et al. [KGSW12], pages 269–298. CODEN LNCSA6. ISBN 3-642-27176-6 (print), 3-642-27177-4 (e-book). ISSN 1439-7358 (print), 2197-7100 (electronic). LCCN ???? URL http://link.springer.com/content/pdf/10.1007/978-3-642-27177-9_13.

Tuminaro:2009:ASP

- [TXZ09] Ray S. Tuminaro, Jinchao Xu, and Yunrong Zhu. Auxiliary space preconditioners for mixed finite element methods. In Bercovier et al. [BGKW09], pages 99–109. CODEN LNCSA6. ISBN 3-642-02676-1 (print), 3-642-02677-X (e-book). ISSN 1439-7358 (print), 2197-7100 (electronic). LCCN QA402.2.I584 2009. URL http://link.springer.com/content/pdf/10.1007/978-3-642-02677-5_9.

Tomlin:2011:UGS

- [TZ11] Alison S. Tomlin and Tilo Ziehn. The use of global sensitivity methods for the analysis, evaluation and improvement of complex modelling systems. In Gorban and Roose [GR11b], pages 9–36. CODEN LNCSA6. ISBN 3-642-14940-5 (print), 3-642-14941-3 (e-book). ISSN 1439-7358 (print), 2197-7100 (electronic). LCCN QA401.C67 2011. URL http://link.springer.com/content/pdf/10.1007/978-3-642-14941-2_2. Extended versions of selected talks given at the international research workshop: *Coping with Complexity: Model Reduction and Data Analysis*, Ambleside, Lake District, UK, August 31–September 4, 2009 in conjunction with the A4A6, the *6th Conference on Algorithms for Approximation*.

Tzavaras:1999:VRA

- [Tza99] Athanasios E. Tzavaras. Viscosity and relaxation approximation for hyperbolic systems of conservation laws. In Kröner et al. [KOR99], pages 73–122. CODEN LNCSA6. ISBN 3-540-65081-4 (print), 3-642-58535-3 (e-book). ISSN 1439-7358 (print), 2197-7100 (electronic). LCCN QA901.I525 1997. URL http://link.springer.com/chapter/10.1007/978-3-642-58535-7_3/.

Unal:2009:PSD

- [ÜG09] V. Ü. Ünal and Ü. Gülçat. Parallel solution of a 3-D mixed convection problem. In Tuncer et al. [TGEM09], pages 107–114. CODEN LNCSA6. ISBN 3-540-92743-3 (print), 3-540-92744-1 (e-book). ISSN 1439-7358 (print), 2197-7100 (electronic). LCCN ???? URL http://link.springer.com/content/pdf/10.1007/978-3-540-92744-0_13. Parallel CFD 2007 was held in Antalya, Turkey, from May 21 to 24, 2007.

Ullmann:2014:PGM

- [UL14] Sebastian Ullmann and Jens Lang. POD–Galerkin modeling and sparse-grid collocation for a natural convection problem with stochastic boundary conditions. In Garcke and Pflüger [GP14], pages 295–315. ISBN 3-319-04536-9 (paperback), 3-319-04537-7 (e-book). LCCN QA188 .S63 2013. URL http://link.springer.com/chapter/10.1007/978-3-319-04537-5_13/.

Ullo:2009:CCS

- [Ull09] John Ullo. Computational challenges in the search for and production of hydrocarbons. In Yip and Diaz de la Rubia [YD09], pages 313–337. CODEN LNCSA6. ISBN 1-4020-9740-9 (print), 1-4020-9741-7 (e-book). ISSN 1439-7358 (print), 2197-7100 (electronic). LCCN ???? URL http://link.springer.com/content/pdf/10.1007/978-1-4020-9741-6_17. Previously published in *Scientific Modeling and Simulations*, Volume 15, Issues 1–3, 2008.

Ullrich:2014:TDD

- [Ull14] Carsten A. Ullrich. Time-dependent density-functional theory: Features and challenges, with a special view on matter under extreme conditions. In Graziani et al. [GDRT14b], pages 1–23. ISBN 3-319-04912-7. ISSN 1439-7358 (print), 2197-7100 (electronic). LCCN QA71-90. URL http://link.springer.com/chapter/10.1007/978-3-319-04912-0_1/.

Urban:2002:A

- [Urb02a] Karsten Urban. Applications. In *Wavelets in Numerical Simulation: Problem Adapted Construction and Applications* [Urb02e], pages 109–159. CODEN LNCSA6. ISBN 3-540-43055-5 (print), 3-642-56002-4 (e-book). ISSN 1439-7358 (print), 2197-7100 (electronic). LCCN QA403.3 .U73

2002. URL http://link.springer.com/content/pdf/10.1007/978-3-642-56002-6_3.

Urban:2002:FM

- [Urb02b] Karsten Urban. Front matter. In *Wavelets in Numerical Simulation: Problem Adapted Construction and Applications* [Urb02e], pages i–xv. CODEN LNCSA6. ISBN 3-540-43055-5 (print), 3-642-56002-4 (e-book). ISSN 1439-7358 (print), 2197-7100 (electronic). LCCN QA403.3 .U73 2002. URL <http://link.springer.com/content/pdf/bfm:978-3-642-56002-6/1>.

Urban:2002:WB

- [Urb02c] Karsten Urban. Wavelet bases. In *Wavelets in Numerical Simulation: Problem Adapted Construction and Applications* [Urb02e], pages 1–81. CODEN LNCSA6. ISBN 3-540-43055-5 (print), 3-642-56002-4 (e-book). ISSN 1439-7358 (print), 2197-7100 (electronic). LCCN QA403.3 .U73 2002. URL http://link.springer.com/content/pdf/10.1007/978-3-642-56002-6_1.

Urban:2002:WBH

- [Urb02d] Karsten Urban. Wavelet bases for $H(\text{div})$ and $H(\text{curl})$. In *Wavelets in Numerical Simulation: Problem Adapted Construction and Applications* [Urb02e], pages 83–107. CODEN LNCSA6. ISBN 3-540-43055-5 (print), 3-642-56002-4 (e-book). ISSN 1439-7358 (print), 2197-7100 (electronic). LCCN QA403.3 .U73 2002. URL http://link.springer.com/content/pdf/10.1007/978-3-642-56002-6_2.

Urban:2002:WNS

- [Urb02e] Karsten Urban. *Wavelets in Numerical Simulation: Problem Adapted Construction and Applications*, volume 22 of *Lecture Notes in Computational Science and Engineering*. Springer-Verlag Inc., New York, NY, USA, 2002. CODEN LNCSA6. ISBN 3-540-43055-5 (print), 3-642-56002-4 (e-book). ISSN 1439-7358 (print), 2197-7100 (electronic). xv + 181 pp. LCCN QA403.3 .U73 2002. URL <http://link.springer.com/book/10.1007/978-3-642-56002-6>; <http://www.springerlink.com/content/978-3-642-56002-6>.

Uribe:2011:SWP

- [Uri11] Francisco J. Uribe. The shock wave problem revisited: The Navier–Stokes equations and Brenner’s two velocity hydrodynamics. In Gorban and Roose [GR11b], pages 207–229. CODEN LNCSA6. ISBN 3-642-14940-5 (print), 3-642-14941-3 (e-book). ISSN 1439-7358 (print), 2197-7100 (electronic). LCCN QA401 .C67 2011. URL http://link.springer.com/content/pdf/10.1007/978-3-642-14941-2_10. Extended versions of selected talks given at the international research workshop: *Coping with Complexity: Model Reduction and Data Analysis*, Ambleside, Lake District, UK, August 31–September 4, 2009 in conjunction with the A4A6, the *6th Conference on Algorithms for Approximation*.

Utke:2006:FBB

- [Utk06] Jean Utke. Flattening basic blocks. In Bücker et al. [BCH⁺06], pages 121–133. CODEN LNCSA6. ISBN 3-540-28403-6 (print), 3-540-28438-9 (e-book). ISSN 1439-7358 (print), 2197-7100 (electronic). LCCN QA304 .I58 2006. URL http://link.springer.com/content/pdf/10.1007/3-540-28438-9_11. Proceedings of the Fourth International Conference on Automatic Differentiation, July 20–23, Chicago, Illinois.

Unterweger:2015:IFP

- [UWN⁺15] K. Unterweger, R. Wittmann, P. Neumann, T. Weinzierl, and H.-J. Bungartz. Integration of FULLSWOF2D and PeanoClaw: Adaptivity and local time-stepping for complex Overland flows. In Mehl et al. [MBS15], pages 181–195. ISBN 3-319-22996-6, 3-319-22997-4 (e-book). LCCN QA71-90; TA329. URL http://link.springer.com/chapter/10.1007/978-3-319-22997-3_11/.

vanderVorst:2000:SPM

- [van00] H. A. van der Vorst. Solution of $f(A)x = b$ with projection methods for the matrix A . In Frommer et al. [FLMS00], pages 18–28. CODEN LNCSA6. ISBN 3-540-67732-1 (print), 3-642-58333-4 (e-book). ISSN 1439-7358 (print), 2197-7100 (electronic). LCCN QC793.3.G38 N86 2000. URL <http://link.springer.com/book/10.1007/978-3-642-58333-9>; <http://www.springerlink.com/content/978-3-642-58333-9>.

VanVliet:2009:CCM

- [Van09a] Krystyn J. Van Vliet. Chemomechanics of complex materials: challenges and opportunities in predictive kinetic timescales. In Yip and Diaz de la Rubia [YD09], pages 67–80. CODEN LNCSA6. ISBN 1-4020-9740-9 (print), 1-4020-9741-7 (e-book). ISSN 1439-7358 (print), 2197-7100 (electronic). LCCN ????. URL http://link.springer.com/content/pdf/10.1007/978-1-4020-9741-6_7. Previously published in *Scientific Modeling and Simulations*, Volume 15, Issues 1–3, 2008.

Vliet:2009:CCM

- [Van09b] Krystyn J. Van Vliet. Chemomechanics of complex materials: challenges and opportunities in predictive kinetic timescales. In Yip and Diaz de la Rubia [YD09], pages 67–80. CODEN LNCSA6. ISBN 1-4020-9740-9 (print), 1-4020-9741-7 (e-book). ISSN 1439-7358 (print), 2197-7100 (electronic). LCCN ????. URL http://link.springer.com/content/pdf/10.1007/978-1-4020-9741-6_7. Previously published in *Scientific Modeling and Simulations*, Volume 15, Issues 1–3, 2008.

Varga:2005:CRU

- [Var05] Andras Varga. Controller reduction using accuracy-enhancing methods. In Benner et al. [BMS05c], pages 225–260. CODEN LNCSA6. ISBN 3-540-24545-6 (print), 3-540-27909-1 (e-book). ISSN 1439-7358 (print), 2197-7100 (electronic). LCCN TA347.C68 D56 2005. URL http://link.springer.com/content/pdf/10.1007/3-540-27909-1_9.

Vasseur:2000:ANS

- [Vas00] Xavier Vasseur. Analysis of a non-standard multigrid preconditioner by spectral portrait computation. In Dick et al. [DRV00], pages 249–255. CODEN LNCSA6. ISBN 3-540-67157-9 (print), 3-642-58312-1 (e-book). ISSN 1439-7358 (print), 2197-7100 (electronic). LCCN QA377 .E94 1999. URL http://link.springer.com/chapter/10.1007/978-3-642-58312-4_34/.

Vermolen:2010:SMM

- [VAvA10] F. J. Vermolen, A. Andreykiv, and E. M. van Aken. A suite of mathematical models for bone ingrowth, bone fracture healing and intra-osseous wound healing. In Koren and Vuik [KV10], pages 289–314. CODEN LNCSA6. ISBN 3-

642-03343-1 (print), 3-642-03344-X (e-book). ISSN 1439-7358 (print), 2197-7100 (electronic). LCCN Q183.9 .A35 2010. URL http://link.springer.com/content/pdf/10.1007/978-3-642-03344-5_10.

Veldman:2005:ILV

- [VC05] Arthur E. P. Veldman and Edith G. M. Coenen. Interaction laws in viscous-inviscid coupling. In Kornhuber et al. [KHP⁺05], pages 225–232. CODEN LNCSA6. ISBN 3-540-22523-4 (print), 3-540-26825-1 (e-book). ISSN 1439-7358 (print), 2197-7100 (electronic). LCCN QA402.2 .I55 2003. URL http://link.springer.com/content/pdf/10.1007/3-540-26825-1_20. Papers from the 15th International Conference on Domain Decomposition, Freie Universität Berlin (FU), Berlin, Germany, July 21–25, 2003.

Vynnytska:2012:DSC

- [VCR12] Lyudmyla Vynnytska, Stuart R. Clark, and Marie E. Rognes. Dynamic simulations of convection in the Earth’s mantle. In Logg et al. [LMW12a], pages 585–600. CODEN LNCSA6. ISBN 3-642-23098-9 (print), 3-642-23099-7 (e-book). ISSN 1439-7358 (print), 2197-7100 (electronic). LCCN ????. URL http://link.springer.com/content/pdf/10.1007/978-3-642-23099-8_31. The software developed by the FEniCS Project is free for all to use and modify (licensed under the GNU (L)GPL), and so is this book.

Vierendeels:2010:SIP

- [VDAH10] J. Vierendeels, J. Degroote, S. Annerel, and R. Haelterman. Stability issues in partitioned FSI calculations. In Bungartz et al. [BMS10], pages 83–102. CODEN LNCSA6. ISBN 3-642-14205-2 (print), 3-642-14206-0 (e-book). ISSN 1439-7358 (print), 2197-7100 (electronic). LCCN TA357.5.F58 F586b 2010. URL http://link.springer.com/content/pdf/10.1007/978-3-642-14206-2_4. Selected contributions from the *First International Workshop on Computational Engineering — special topic Fluid-Structure Interactions* held in Herrsching, Germany, in October 2009.

Vondrak:2007:FDD

- [VDDP07] Vít Vondrák, Zdenek Dostál, Jirí Dobiáš, and Svatopluk Pták. A FETI domain decomposition method applied to contact problems with large displacements. In Widlund and

Keyes [WK07], pages 771–778. CODEN LNCSA6. ISBN 3-540-34468-3 (print), 3-540-34469-1 (e-book). ISSN 1439-7358 (print), 2197-7100 (electronic). LCCN QA402.2 .I55 2005. URL http://link.springer.com/content/pdf/10.1007/978-3-540-34469-8_96. Proceedings of the *Sixteenth International Conference on Domain Decomposition Methods*, New York City, January 11–15, 2005.

vandenEshof:2005:ILS

[vdESvG05] Jasper van den Eshof, Gerard L. G. Sleijpen, and Martin B. van Gijzen. Iterative linear system solvers with approximate matrix-vector products. In Boriçi et al. [BFJ⁺05], pages 133–142. CODEN LNCSA6. ISBN 3-540-21257-4 (print), 3-540-28504-0 (e-book). ISSN 1439-7358 (print), 2197-7100 (electronic). LCCN QC793.3.Q35 I56 2003. URL http://link.springer.com/content/pdf/10.1007/3-540-28504-0_13.

vanderHoeven:2010:LES

[vdHB10] S. van der Hoeven and B. J. Boersma. Large eddy simulation of turbulent non-premixed jet flames with a high order numerical method. In Koren and Vuik [KV10], pages 269–287. CODEN LNCSA6. ISBN 3-642-03343-1 (print), 3-642-03344-X (e-book). ISSN 1439-7358 (print), 2197-7100 (electronic). LCCN Q183.9 .A35 2010. URL http://link.springer.com/content/pdf/10.1007/978-3-642-03344-5_9.

VanKeer:2001:ETC

[VDM⁺01] R. Van Keer, L. R. Dupre, J. A. A. Melkebeek, Y. I. Moroz, and S. E. Zirka. On the evaluation of transients in conducting ferromagnetic cores. In van Rienen et al. [vRGH01], pages 417–424. CODEN LNCSA6. ISBN 3-540-42173-4 (softcover), 3-642-56470-4 (e-book). ISSN 1439-7358 (print), 2197-7100 (electronic). LCCN TK5 .S35 2001. URL http://link.springer.com/content/pdf/10.1007/978-3-642-56470-3_42. Selected contributions presented at the 3rd International Workshop on Scientific Computing in Electrical Engineering.

vanderMeer:2010:SPF

[vdM10] F. P. van der Meer. Simulation of progressive failure in composite laminates. In Koren and Vuik [KV10], pages 343–371. CODEN LNCSA6. ISBN 3-642-03343-1 (print), 3-642-03344-X (e-book). ISSN 1439-7358 (print), 2197-7100 (electronic).

LCCN Q183.9 .A35 2010. URL http://link.springer.com/content/pdf/10.1007/978-3-642-03344-5_12.

vanderVorst:2000:SFX

- [vdV00] Henk A. van der Vorst. Solution of $f(A)x = b$ with projection methods for the matrix A . In Frommer et al. [FLMS00], pages 18–28. CODEN LNCSA6. ISBN 3-540-67732-1 (print), 3-642-58333-4 (e-book). ISSN 1439-7358 (print), 2197-7100 (electronic). LCCN QC793.3.G38 N86 2000. URL http://link.springer.com/chapter/10.1007/978-3-642-58333-9_2/.

vanderVen:2000:ARC

- [vdVvdV00] H. van der Ven and J. J. W. van der Vegt. Accuracy, resolution, and computational complexity of a discontinuous Galerkin finite element method. In Cockburn et al. [CKS00b], pages 439–444. CODEN LNCSA6. ISBN 3-540-66787-3, 3-642-64098-2 (print), 3-642-59721-1 (e-book). ISSN 1439-7358 (print), 2197-7100 (electronic). LCCN TA347.F5 D57 2000. URL http://link.springer.com/chapter/10.1007/978-3-642-59721-3_45/. Papers from the first international symposium on DGM Newport, Rhode Island, USA, May 24–26, 1999.

Veldhuizen:2000:BLT

- [Vel00] Todd L. Veldhuizen. Blitz++: The library that thinks it is a compiler. In Langtangen et al. [LBQ00], pages 57–87. CODEN LNCSA6. ISBN 3-540-66557-9 (softcover), 3-642-57172-7 (e-book). ISSN 1439-7358 (print), 2197-7100 (electronic). LCCN QA76.6 .A336 2000. URL http://link.springer.com/chapter/10.1007/978-3-642-57172-5_2/. Papers from an International Workshop on Modern Software Tools for Scientific Computing (SciTools'98), Oslo, Norway, September 14–16, 1998.

Verriest:2004:APS

- [Ver04] Erik I. Verriest. Asymptotic properties of stochastic delay systems. In Niculescu and Gu [NG04], pages 389–420. CODEN LNCSA6. ISBN 3-540-20890-9 (print), 3-642-18482-0 (e-book). ISSN 1439-7358 (print), 2197-7100 (electronic). LCCN TJ213 .A253 2004. URL http://link.springer.com/content/pdf/10.1007/978-3-642-18482-6_28. Most of the chapters are based on the materials presented in the

CNRS-NSF Workshop *Advances in Time-Delay Systems* held in Paris in January 22–24, 2003.

Vandewalle:2005:OOS

- [VG05] Stefan Vandewalle and Martin J. Gander. Optimized overlapping Schwarz methods for parabolic PDEs with time-delay. In Kornhuber et al. [KHP⁺05], pages 291–298. CODEN LNCSA6. ISBN 3-540-22523-4 (print), 3-540-26825-1 (e-book). ISSN 1439-7358 (print), 2197-7100 (electronic). LCCN QA402.2 .I55 2003. URL http://link.springer.com/content/pdf/10.1007/3-540-26825-1_28. Papers from the 15th International Conference on Domain Decomposition, Freie Universität Berlin (FU), Berlin, Germany, July 21–25, 2003.

Vossbeck:2008:DFA

- [VGK08] Michael Voßbeck, Ralf Giering, and Thomas Kaminski. Development and first applications of TAC++. In Bischof et al. [BBH⁺08], pages 187–197. CODEN LNCSA6. ISBN 3-540-68935-4 (print), 3-540-68942-7 (e-book). ISSN 1439-7358 (print), 2197-7100 (electronic). LCCN QA304 .I58 2008. URL http://link.springer.com/content/pdf/10.1007/978-3-540-68942-3_17.

Vidal:2007:GOE

- [VH07] Yolanda Vidal and Antonio Huerta. Goal oriented error estimation for the element free Galerkin method. In Griebel and Schweitzer [GS07b], pages 265–282. CODEN LNCSA6. ISBN 3-540-46214-7 (print), 3-540-46222-8 (e-book). ISSN 1439-7358 (print), 2197-7100 (electronic). LCCN QA377 .M45 2005. URL http://link.springer.com/content/pdf/10.1007/978-3-540-46222-4_16. Third international workshop on Meshfree Methods for Partial Differential Equations held from September 12 to September 15, 2005 in Bonn, Germany.

Vynnycky:2009:EP

- [VI09] M. Vynnycky and N. Ipek. Electrochemical pickling. In Hegarty et al. [HKOS09], pages 287–294. CODEN LNCSA6. ISBN 3-642-00604-3 (print), 3-642-00605-1 (e-book). ISSN 1439-7358 (print), 2197-7100 (electronic). LCCN ???? URL http://link.springer.com/content/pdf/10.1007/978-3-642-00605-0_24.

Vierendeels:2006:ICP

- [Vie06] Jan Vierendeels. Implicit coupling of partitioned fluid-structure interaction solvers using reduced-order models. In Bungartz and Schäfer [BS06], pages 1–18. CODEN LNCSA6. ISBN 3-540-34595-7 (print), 3-540-34596-5 (e-book). ISSN 1439-7358 (print), 2197-7100 (electronic). LCCN TA357.5.F58 F586 200. URL http://link.springer.com/content/pdf/10.1007/3-540-34596-5_1. Proceedings of a workshop on fluid-structure interactions held in Hohenwart, Germany, in October 2005.

Vila:2005:SRH

- [Vil05] Jean Paul Vila. SPH renormalized hybrid methods for conservation laws: Applications to free surface flows. In Griebel and Schweitzer [GS05], pages 207–229. CODEN LNCSA6. ISBN 3-540-23026-2 (print), 3-540-27099-X (e-book). ISSN 1439-7358 (print), 2197-7100 (electronic). LCCN QA377 .M452 2005. URL http://link.springer.com/content/pdf/10.1007/3-540-27099-X_12. Proceedings of the Second International Workshop on Meshfree Methods for Partial Differential Equations, Institut für Numerische Simulation Rheinische Friedrich–Wilhelms Universität Bonn, September 15–17, 2003.

Vouvakis:2007:DDA

- [VL07] Marinos Vouvakis and Jin-Fa Lee. A domain decomposition approach for non-conformal couplings between finite and boundary elements for electromagnetic scattering problems in \mathbb{R}^3 . In Widlund and Keyes [WK07], pages 257–264. CODEN LNCSA6. ISBN 3-540-34468-3 (print), 3-540-34469-1 (e-book). ISSN 1439-7358 (print), 2197-7100 (electronic). LCCN QA402.2 .I55 2005. URL http://link.springer.com/content/pdf/10.1007/978-3-540-34469-8_29. Proceedings of the *Sixteenth International Conference on Domain Decomposition Methods*, New York City, January 11–15, 2005.

Koten:2012:CTI

- [VL12] Brian Van Koten and Xingjie Helen Li. A computational and theoretical investigation of the accuracy of quasicontinuum methods. In Graham et al. [GHLS12], pages 67–96. CODEN LNCSA6. ISBN 3-642-22060-6 (print), 3-642-22061-4 (e-book). ISSN 1439-7358 (print), 2197-7100 (electronic).

LCCN QA297 .N844 2012. URL http://link.springer.com/content/pdf/10.1007/978-3-642-22061-6_3. Ten invited expository articles from the 91st LMS Durham Symposium on *Numerical Analysis of Multiscale Problems*, Durham, UK, 5–15 July 2010.

vanLeer:2000:SES

- [vLD00] Bram van Leer and David Darmofal. Steady Euler solutions in $O(N)$ operations. In Dick et al. [DRV00], pages 24–33. CODEN LNCSA6. ISBN 3-540-67157-9 (print), 3-642-58312-1 (e-book). ISSN 1439-7358 (print), 2197-7100 (electronic). LCCN QA377 .E94 1999. URL http://link.springer.com/chapter/10.1007/978-3-642-58312-4_3/.

Valarmathi:2009:PUF

- [VM09] S. Valarmathi and J. J. H. Miller. A parameter-uniform finite difference method for a singularly perturbed initial value problem: a special case. In Hegarty et al. [HKOS09], pages 267–276. CODEN LNCSA6. ISBN 3-642-00604-3 (print), 3-642-00605-1 (e-book). ISSN 1439-7358 (print), 2197-7100 (electronic). LCCN ???? URL http://link.springer.com/content/pdf/10.1007/978-3-642-00605-0_22.

Voigt:2002:CPD

- [VNW02] A. Voigt, J. Nitschkowski, and Ch Weichmann. Controlling point defects in single silicon crystals grown by the Czochralski method. In Breuer et al. [BDZ02], pages 229–236. CODEN LNCSA6. ISBN 3-540-42946-8 (print), 3-642-55919-0 (e-book). ISSN 1439-7358 (print), 2197-7100 (electronic). LCCN Q183.9 .I58 2001. URL http://link.springer.com/content/pdf/10.1007/978-3-642-55919-8_25.

Velarde:2005:RTA

- [VO05] P. Velarde and F. Ogando. Radiation transport in AMR. In Plewa et al. [PLW05], pages 271–280. CODEN LNCSA6. ISBN 3-540-21147-0 (print), 3-540-27039-6 (e-book). ISSN 1439-7358 (print), 2197-7100 (electronic). LCCN QA377 .C46 2003. URL http://link.springer.com/content/pdf/10.1007/3-540-27039-6_18.

Vojta:2006:PSP

- [Voj06] Thomas Vojta. Parallel simulations of phase transitions in disordered many-particle systems. In Hoffmann and

Meyer [HM06], pages 173–201. CODEN LNCSA6. ISBN 3-540-33539-0 (print), 3-540-33541-2 (e-book). ISSN 1439-7358 (print), 2197-7100 (electronic). LCCN QA76.58 .P358 2006. URL http://link.springer.com/content/pdf/10.1007/3-540-33541-2_10.

Varniere:2005:AAA

- [VPC⁺05] P. Varnière, A. Poludnenko, A. Cunningham, A. Frank, and S. Mitran. AstroBEAR: AMR for astrophysical applications-II: Tests and applications. In Plewa et al. [PLW05], pages 463–472. CODEN LNCSA6. ISBN 3-540-21147-0 (print), 3-540-27039-6 (e-book). ISSN 1439-7358 (print), 2197-7100 (electronic). LCCN QA377 .C46 2003. URL http://link.springer.com/content/pdf/10.1007/3-540-27039-6_35.

Viola:2011:AAI

- [VPRF11] Ignazio Maria Viola, Raffaele Ponzini, Daniele Rocchi, and Fabio Fossati. Analysis of aerodynamic indices for racing sailing yachts: a computational study and benchmark on up to 128 CPUs. In Tromeur-Dervout et al. [TDBEE11], pages 61–70. CODEN LNCSA6. ISBN 3-642-14437-3 (print), 3-642-14438-1 (e-book). ISSN 1439-7358 (print), 2197-7100 (electronic). LCCN ????. URL http://link.springer.com/content/pdf/10.1007/978-3-642-14438-7_6. Proceedings of the twentieth meeting, Parallel CFD 2008, held May 19–22, 2008 in Lyon, France.

vanRienen:2001:AAP

- [vR01a] Ursula van Rienen. Applications from accelerator physics. In *Numerical Methods in Computational Electrodynamics: Linear Systems in Practical Applications* [vR01g], pages 243–333. CODEN LNCSA6. ISBN 3-540-67629-5 (print), 3-642-56802-5 (e-book). ISSN 1439-7358 (print), 2197-7100 (electronic). LCCN QC631.3 .V36 2000. URL http://link.springer.com/content/pdf/10.1007/978-3-642-56802-2_6.

vanRienen:2001:AAE

- [vR01b] Ursula van Rienen. Applications from electrical engineering. In *Numerical Methods in Computational Electrodynamics: Linear Systems in Practical Applications* [vR01g], pages 205–241. CODEN LNCSA6. ISBN 3-540-67629-5 (print), 3-642-56802-5 (e-book). ISSN 1439-7358 (print), 2197-7100 (electronic). LCCN QC631.3 .V36 2000. URL http://link.springer.com/content/pdf/10.1007/978-3-642-56802-2_6.

//link.springer.com/content/pdf/10.1007/978-3-642-56802-2_5.

vanRienen:2001:CE

- [vR01c] Ursula van Rienen. Classical electrodynamics. In *Numerical Methods in Computational Electrodynamics: Linear Systems in Practical Applications* [vR01g], pages 11–34. CODEN LNCSA6. ISBN 3-540-67629-5 (print), 3-642-56802-5 (e-book). ISSN 1439-7358 (print), 2197-7100 (electronic). LCCN QC631.3 .V36 2000. URL http://link.springer.com/content/pdf/10.1007/978-3-642-56802-2_2.

vanRienen:2001:FM

- [vR01d] Ursula van Rienen. Front matter. In *Numerical Methods in Computational Electrodynamics: Linear Systems in Practical Applications* [vR01g], pages i–xiii. CODEN LNCSA6. ISBN 3-540-67629-5 (print), 3-642-56802-5 (e-book). ISSN 1439-7358 (print), 2197-7100 (electronic). LCCN QC631.3 .V36 2000. URL <http://link.springer.com/content/pdf/bfm:978-3-642-56802-2/1>.

vanRienen:2001:I

- [vR01e] Ursula van Rienen. Introduction. In *Numerical Methods in Computational Electrodynamics: Linear Systems in Practical Applications* [vR01g], pages 1–9. CODEN LNCSA6. ISBN 3-540-67629-5 (print), 3-642-56802-5 (e-book). ISSN 1439-7358 (print), 2197-7100 (electronic). LCCN QC631.3 .V36 2000. URL http://link.springer.com/content/pdf/10.1007/978-3-642-56802-2_1.

vanRienen:2001:NFT

- [vR01f] Ursula van Rienen. Numerical field theory. In *Numerical Methods in Computational Electrodynamics: Linear Systems in Practical Applications* [vR01g], pages 35–81. CODEN LNCSA6. ISBN 3-540-67629-5 (print), 3-642-56802-5 (e-book). ISSN 1439-7358 (print), 2197-7100 (electronic). LCCN QC631.3 .V36 2000. URL http://link.springer.com/content/pdf/10.1007/978-3-642-56802-2_3.

vanRienen:2001:NMC

- [vR01g] Ursula van Rienen. *Numerical Methods in Computational Electrodynamics: Linear Systems in Practical Applications*, volume 12 of *Lecture Notes in Computational Science and Engineering*. Springer-Verlag Inc., New York,

NY, USA, 2001. CODEN LNCSA6. ISBN 3-540-67629-5 (print), 3-642-56802-5 (e-book). ISSN 1439-7358 (print), 2197-7100 (electronic). xii + 375 pp. LCCN QC631.3 .V36 2000. URL <http://link.springer.com/book/10.1007/978-3-642-56802-2>; <http://www.springerlink.com/content/978-3-642-56802-2>.

vanRienen:2001:NTL

[vR01h] Ursula van Rienen. Numerical treatment of linear systems. In *Numerical Methods in Computational Electrodynamics: Linear Systems in Practical Applications* [vR01g], pages 83–203. CODEN LNCSA6. ISBN 3-540-67629-5 (print), 3-642-56802-5 (e-book). ISSN 1439-7358 (print), 2197-7100 (electronic). LCCN QC631.3 .V36 2000. URL http://link.springer.com/content/pdf/10.1007/978-3-642-56802-2_4.

vanRienen:2001:S

[vR01i] Ursula van Rienen. Summary. In *Numerical Methods in Computational Electrodynamics: Linear Systems in Practical Applications* [vR01g], pages 335–336. CODEN LNCSA6. ISBN 3-540-67629-5 (print), 3-642-56802-5 (e-book). ISSN 1439-7358 (print), 2197-7100 (electronic). LCCN QC631.3 .V36 2000. URL http://link.springer.com/content/pdf/10.1007/978-3-642-56802-2_7.

vanRienen:2001:SCE

[vRGH01] Ursula van Rienen, Michael Günther, and Dirk Hecht, editors. *Scientific Computing in Electrical Engineering: Proceedings of the 3rd International Workshop, August 20–23, 2000, Warnemünde, Germany*, volume 18 of *Lecture Notes in Computational Science and Engineering*. Springer-Verlag Inc., New York, NY, USA, 2001. CODEN LNCSA6. ISBN 3-540-42173-4 (softcover), 3-642-56470-4 (e-book). ISSN 1439-7358 (print), 2197-7100 (electronic). LCCN TK5 .S35 2001. URL <http://link.springer.com/book/10.1007/978-3-642-56470-3>; <http://www.springerlink.com/content/978-3-642-56470-3>. Selected contributions presented at the 3rd International Workshop on Scientific Computing in Electrical Engineering.

Vierendeels:2000:TAS

[VRMD00] Jan Vierendeels, Kris Riemslag, B. Merci, and E. Dick. Treatment of all speed flows and high aspect ratios in CFD

applications. In Dick et al. [DRV00], pages 256–263. CODEN LNCSA6. ISBN 3-540-67157-9 (print), 3-642-58312-1 (e-book). ISSN 1439-7358 (print), 2197-7100 (electronic). LCCN QA377 .E94 1999. URL http://link.springer.com/chapter/10.1007/978-3-642-58312-4_35/.

vonSchwerin:1999:MSS

- [vS99] Reinhold von Schwerin. *Multibody system simulation: numerical methods, algorithms, and software*, volume 7 of *Lecture Notes in Computational Science and Engineering*. Springer-Verlag Inc., New York, NY, USA, 1999. CODEN LNCSA6. ISBN 3-540-65662-6 (softcover), 3-642-58515-9 (e-book). ISSN 1439-7358 (print), 2197-7100 (electronic). xx + 337 pp. LCCN QA845 .V66 1999.

Versieux:2007:TSF

- [VS07] Henrique Versieux and Marcus Sarkis. A three-scale finite element method for elliptic equations with rapidly oscillating periodic coefficients. In Widlund and Keyes [WK07], pages 763–770. CODEN LNCSA6. ISBN 3-540-34468-3 (print), 3-540-34469-1 (e-book). ISSN 1439-7358 (print), 2197-7100 (electronic). LCCN QA402.2 .I55 2005. URL http://link.springer.com/content/pdf/10.1007/978-3-540-34469-8_95. Proceedings of the *Sixteenth International Conference on Domain Decomposition Methods*, New York City, January 11–15, 2005.

Viscor:2011:FPS

- [VS11] Martin Viscor and Martin Stynes. Fundamental properties of the solution of a singularly perturbed degenerate parabolic problem. In Clavero et al. [CGL11], pages 235–243. CODEN LNCSA6. ISBN 3-642-19664-0 (print), 3-642-19665-9 (e-book). ISSN 1439-7358 (print), 2197-7100 (electronic). LCCN ???? URL http://link.springer.com/content/pdf/10.1007/978-3-642-19665-2_25. Selected papers from the proceedings of BAIL 2010 (Boundary and Interior Layers — Computational and Asymptotic Methods), held from 5 to 9 July 2010 at the University of Zaragoza, Spain.

Veprek:2014:FEK

- [VS14] Ratko G. Veprek and Sebastian Steiger. Finite elements for $k \cdot p$ multiband envelope equations. In Ehrhardt and Koprucki

[EK14], pages 129–154. ISBN 3-319-01426-9, 3-319-01427-7 (e-book). ISSN 1439-7358 (print), 2197-7100 (electronic). LCCN QA71-90; QA300. URL http://link.springer.com/chapter/10.1007/978-3-319-01427-2_4/.

Valen-Sendstad:2012:CFE

[VSLMN12] Kristian Valen-Sendstad, Anders Logg, Kent-Andre Mardal, and Harish Narayanan. A comparison of finite element schemes for the incompressible Navier–Stokes equations. In Logg et al. [LMW12a], pages 399–420. CODEN LNCSA6. ISBN 3-642-23098-9 (print), 3-642-23099-7 (e-book). ISSN 1439-7358 (print), 2197-7100 (electronic). LCCN ????? URL http://link.springer.com/content/pdf/10.1007/978-3-642-23099-8_21. The software developed by the FEniCS Project is free for all to use and modify (licensed under the GNU (L)GPL), and so is this book.

Valen-Sendstad:2012:CH

[VSML12] Kristian Valen-Sendstad, Kent-Andre Mardal, and Anders Logg. Computational hemodynamics. In Logg et al. [LMW12a], pages 441–454. CODEN LNCSA6. ISBN 3-642-23098-9 (print), 3-642-23099-7 (e-book). ISSN 1439-7358 (print), 2197-7100 (electronic). LCCN ????? URL http://link.springer.com/content/pdf/10.1007/978-3-642-23099-8_23. The software developed by the FEniCS Project is free for all to use and modify (licensed under the GNU (L)GPL), and so is this book.

Vulanovic:2009:BSP

[Vul09] Relja Vulanović. Boundary shock problems and singularly perturbed Riccati equations. In Hegarty et al. [HKOS09], pages 277–285. CODEN LNCSA6. ISBN 3-642-00604-3 (print), 3-642-00605-1 (e-book). ISSN 1439-7358 (print), 2197-7100 (electronic). LCCN ????? URL http://link.springer.com/content/pdf/10.1007/978-3-642-00605-0_23.

Verstappen:2002:SPD

[VV02] R. W. C. P. Verstappen and A. E. P. Veldman. Symmetry-preserving discretization of turbulent channel flow. In Breuer et al. [BDZ02], pages 107–114. CODEN LNCSA6. ISBN 3-540-42946-8 (print), 3-642-55919-0 (e-book). ISSN 1439-7358 (print), 2197-7100 (electronic). LCCN Q183.9 .I58

2001. URL http://link.springer.com/content/pdf/10.1007/978-3-642-55919-8_12.

vanVeldhuizen:2010:NIT

- [vVVK10] S. van Veldhuizen, C. Vuik, and C. R. Kleijn. On numerical issues in time accurate laminar reacting gas flow solvers. In Koren and Vuik [KV10], pages 47–78. CODEN LNCSA6. ISBN 3-642-03343-1 (print), 3-642-03344-X (e-book). ISSN 1439-7358 (print), 2197-7100 (electronic). LCCN Q183.9 .A35 2010. URL http://link.springer.com/content/pdf/10.1007/978-3-642-03344-5_3.

Voigt:2003:TPD

- [VW03] Axel Voigt and Christian Weichmann. Transport of point defects in growing Si crystals. In Emmerich et al. [ENS03], page ?? CODEN LNCSA6. ISBN 3-540-40367-1. ISSN 1439-7358 (print), 2197-7100 (electronic). LCCN QC173.4.I57 I57 2003. URL <http://www.loc.gov/catdir/enhancements/fy0818/2003060231-d.html>. Papers from the workshop on “Computational Physics of Transport and Interfacial Dynamics”, Dresden, February 25–March 8, 2002.

Vassilevski:2008:MAM

- [VZ08] Panayot S. Vassilevski and Ludmil T. Zikatanov. MIN-ISYMPIOSIUM 1: Advanced multigrid methods for systems of PDEs. In Langer et al. [LDK⁺08], page 145. CODEN LNCSA6. ISBN 3-540-75198-X (print), 3-540-75199-8 (e-book). ISSN 1439-7358 (print), 2197-7100 (electronic). LCCN QA402.2 .I55 2006. URL http://link.springer.com/content/pdf/10.1007/978-3-540-75199-1_12. 17th International Conference on Domain Decomposition Methods held at St. Wolfgang/Strobl, Austria, July 3–7, 2006.

vanZuijlen:2010:MLA

- [vZB10] A. H. van Zuijlen and H. Bijl. Multi-level accelerated sub-iterations for fluid-structure interaction. In Bungartz et al. [BMS10], pages 1–25. CODEN LNCSA6. ISBN 3-642-14205-2 (print), 3-642-14206-0 (e-book). ISSN 1439-7358 (print), 2197-7100 (electronic). LCCN TA357.5.F58 F586b 2010. URL http://link.springer.com/content/pdf/10.1007/978-3-642-14206-2_1. Selected contributions from the *First International Workshop on Computational Engineering — special topic Fluid-Structure Interactions* held in Herrsching, Germany, in October 2009.

Wagner:1999:DNS

- [Wag99] C. Wagner. Direct Navier–Stokes simulations of turbulent Czochralski flows. In Bungartz et al. [BDZ99], pages 279–290. CODEN LNCSA6. ISBN 3-540-65730-4 (print), 3-642-60155-3 (e-book). ISSN 1439-7358 (print), 2197-7100 (electronic). LCCN Q183.9.I58 1998. URL http://link.springer.com/chapter/10.1007/978-3-642-60155-2_24/.

Wagner:2000:ACM

- [Wag00] Christian Wagner. On the algebraic construction of multilevel transfer operators (for convection-diffusion-reaction equations). In Dick et al. [DRV00], pages 264–270. CODEN LNCSA6. ISBN 3-540-67157-9 (print), 3-642-58312-1 (e-book). ISSN 1439-7358 (print), 2197-7100 (electronic). LCCN QA377 .E94 1999. URL http://link.springer.com/chapter/10.1007/978-3-642-58312-4_36/.

Walkington:2003:MMF

- [Wal03] Noel J. Walkington. Macroscopic models of fluids with microstructure. In Bänsch [Bän03], pages 23–36. CODEN LNCSA6. ISBN 3-642-62406-5 (print), 3-642-19014-6 (e-book). ISSN 1439-7358 (print), 2197-7100 (electronic). LCCN ????? URL http://link.springer.com/content/pdf/10.1007/978-3-642-19014-8_2.

Walther:2012:ECS

- [Wal12] Andrea Walther. On the efficient computation of sparsity patterns for Hessians. In Forth et al. [FHP⁺12], pages 139–149. CODEN LNCSA6. ISBN 3-642-30022-7 (print), 3-642-30023-5 (e-book). ISSN 1439-7358 (print), 2197-7100 (electronic). LCCN ????? URL http://link.springer.com/content/pdf/10.1007/978-3-642-30023-3_13. Proceedings of the Sixth International Conference on Automatic Differentiation (AD2012) held July 23–27, 2012, in Fort Collins, Colorado, USA.

Wang:2000:ESP

- [Wan00] Hong Wang. An ELLAM scheme for porous medium flows. In Cockburn et al. [CKS00b], pages 445–450. CODEN LNCSA6. ISBN 3-540-66787-3, 3-642-64098-2 (print), 3-642-59721-1 (e-book). ISSN 1439-7358 (print), 2197-7100 (electronic). LCCN TA347.F5 D57 2000. URL http://link.springer.com/chapter/10.1007/978-3-642-59721-3_46/. Papers from

the first international symposium on DGM Newport, Rhode Island, USA, May 24–26, 1999.

Wang:2013:TLA

- [Wan13] Kening Wang. A two-level additive Schwarz preconditioner for C^0 interior penalty methods for Cahn–Hilliard equations. In Bank [Ban13], pages 135–142. ISBN 3-642-35274-X (hardcover), 3-642-35275-8 (e-book). ISSN 1439-7358 (print), 2197-7100 (electronic). LCCN QA402.2 .I58 2011. URL http://link.springer.com/chapter/10.1007/978-3-642-35275-1_14/.

Warburton:2000:ADG

- [War00] Tim Warburton. Application of the discontinuous Galerkin method to Maxwell’s equations using unstructured poly-morphic hp-finite elements. In Cockburn et al. [CKS00b], pages 451–458. CODEN LNCSA6. ISBN 3-540-66787-3, 3-642-64098-2 (print), 3-642-59721-1 (e-book). ISSN 1439-7358 (print), 2197-7100 (electronic). LCCN TA347.F5 D57 2000. URL http://link.springer.com/chapter/10.1007/978-3-642-59721-3_47/. Papers from the first international symposium on DGM Newport, Rhode Island, USA, May 24–26, 1999.

Wasberg:2011:PPM

- [Was11] Carl Erik Wasberg. Post-processing of marginally resolved spectral element data. In Hesthaven and Rønquist [HR11], pages 503–510. CODEN LNCSA6. ISBN 3-642-15336-4 (print), 3-642-15337-2 (e-book). ISSN 1439-7358 (print), 2197-7100 (electronic). LCCN ???? URL http://link.springer.com/content/pdf/10.1007/978-3-642-15337-2_49.

Watanabe:2009:PCD

- [Wat09] Tadashi Watanabe. Parallel computations of droplet oscillations. In Tuncer et al. [TGEM09], pages 163–170. CODEN LNCSA6. ISBN 3-540-92743-3 (print), 3-540-92744-1 (e-book). ISSN 1439-7358 (print), 2197-7100 (electronic). LCCN ???? URL http://link.springer.com/content/pdf/10.1007/978-3-540-92744-0_20. Parallel CFD 2007 was held in Antalya, Turkey, from May 21 to 24, 2007.

Weinan:2005:HMS

- [WB05] E Weinan and Engquist Björn. The heterogeneous multi-scale method for homogenization problems. In Engquist et al. [ERL05], pages 89–110. CODEN LNCSA6. ISBN 3-540-25335-1 (print), 3-540-26444-2 (e-book). ISSN 1439-7358 (print), 2197-7100 (electronic). LCCN TA347.F5 M85 2005. URL http://link.springer.com/content/pdf/10.1007/3-540-26444-2_4. Proceedings of *Multiscale Methods in Science and Engineering*, Uppsala, Sweden, January 26–28, 2004.

Willkomm:2012:IDD

- [WB12] Johannes Willkomm and Christian H. Bischof. The impact of dynamic data reshaping on adjoint code generation for weakly-typed languages such as Matlab. In Forth et al. [FHP⁺12], pages 127–138. CODEN LNCSA6. ISBN 3-642-30022-7 (print), 3-642-30023-5 (e-book). ISSN 1439-7358 (print), 2197-7100 (electronic). LCCN ???? URL http://link.springer.com/content/pdf/10.1007/978-3-642-30023-3_12. Proceedings of the Sixth International Conference on Automatic Differentiation (AD2012) held July 23–27, 2012, in Fort Collins, Colorado, USA.

Wales:2006:OET

- [WCJ06] David J. Wales, Joanne M. Carr, and Tim James. Overcoming energetic and time scale barriers using the potential energy surface. In Leimkuhler et al. [LCE⁺06], pages 73–87. CODEN LNCSA6. ISBN 3-540-25542-7 (print), 3-540-31618-3 (e-book). ISSN 1439-7358 (print), 2197-7100 (electronic). LCCN QP517.M3 N49 2006. URL http://link.springer.com/content/pdf/10.1007/3-540-31618-3_5. Papers from the fourth edition of *Algorithms for Macromolecular Modelling*, Leicester, UK August 2004.

Wang:2009:CMB

- [WD09] Zhihui Wang and Thomas S. Deisboeck. Computational modeling of brain tumors: discrete, continuum or hybrid? In Yip and Diaz de la Rubia [YD09], pages 381–393. CODEN LNCSA6. ISBN 1-4020-9740-9 (print), 1-4020-9741-7 (e-book). ISSN 1439-7358 (print), 2197-7100 (electronic). LCCN ???? URL http://link.springer.com/content/pdf/10.1007/978-1-4020-9741-6_20. Previously published in *Scientific Modeling and Simulations*, Volume 15, Issues 1–3, 2008.

Walther:2012:DDF

- [WDP⁺12] Marc Walther, Jens-Olaf Delfs, Chan-Hee Park, Jude Musuza, and Florin Radu. Density dependent flow. In Kolditz et al. [KGSW12], pages 235–245. CODEN LNCSA6. ISBN 3-642-27176-6 (print), 3-642-27177-4 (e-book). ISSN 1439-7358 (print), 2197-7100 (electronic). LCCN ???? URL http://link.springer.com/content/pdf/10.1007/978-3-642-27177-9_11.

Weiland:2003:FIM

- [Wei03] Thomas Weiland. Finite integration method and discrete electromagnetism. In Carstensen et al. [CFH⁺03], pages 183–198. CODEN LNCSA6. ISBN 3-540-44392-4 (print), 3-642-55745-7 (e-book). ISSN 1439-7358 (print), 2197-7100 (electronic). LCCN QC665.E4 G35 2001. URL http://link.springer.com/content/pdf/10.1007/978-3-642-55745-3_12.

Wenger:2005:ODO

- [Wen05] Urs Wenger. The overlap Dirac operator as a continued fraction. In Boriçi et al. [BFJ⁺05], pages 191–197. CODEN LNCSA6. ISBN 3-540-21257-4 (print), 3-540-28504-0 (e-book). ISSN 1439-7358 (print), 2197-7100 (electronic). LCCN QC793.3.Q35 I56 2003. URL http://link.springer.com/content/pdf/10.1007/3-540-28504-0_17.

Wendland:2008:HMF

- [Wen08] Holger Wendland. Hybrid methods for fluid-structure-interaction problems in aeroelasticity. In Griebel and Schweitzer [GS08d], pages 335–358. CODEN LNCSA6. ISBN 3-540-79993-1 (print), 3-540-79994-X (e-book). ISSN 1439-7358 (print), 2197-7100 (electronic). LCCN ???? URL http://link.springer.com/content/pdf/10.1007/978-3-540-79994-8_19. Fourth International Workshop on Meshfree Methods for Partial Differential Equations held from September 17 to September 20, 2007 in Bonn, Germany.

Werbos:2006:BDA

- [Wer06] Paul J. Werbos. Backwards differentiation in AD and neural nets: Past links and new opportunities. In Bücker et al. [BCH⁺06], pages 15–34. CODEN LNCSA6. ISBN 3-540-28403-6 (print), 3-540-28438-9 (e-book). ISSN 1439-7358 (print), 2197-7100 (electronic). LCCN QA304 .I58

2006. URL http://link.springer.com/content/pdf/10.1007/3-540-28438-9_2. Proceedings of the Fourth International Conference on Automatic Differentiation, July 20–23, Chicago, Illinois.

Walther:1999:ACR

- [WG99] A. Walther and A. Griewank. Applying the checkpointing routine `treeverse` to discretizations of Burgers' equation. In Bungartz et al. [BDZ99], pages 13–24. CODEN LNCSA6. ISBN 3-540-65730-4 (print), 3-642-60155-3 (e-book). ISSN 1439-7358 (print), 2197-7100 (electronic). LCCN Q183.9.I58 1998. URL http://link.springer.com/chapter/10.1007/978-3-642-60155-2_2/.

Weaver:2005:MPS

- [WG05] Robert P. Weaver and Michael L. Gittings. Massively parallel simulations with DOE's ASCI supercomputers: an overview of the Los Alamos Crestone Project. In Plewa et al. [PLW05], pages 29–56. CODEN LNCSA6. ISBN 3-540-21147-0 (print), 3-540-27039-6 (e-book). ISSN 1439-7358 (print), 2197-7100 (electronic). LCCN QA377 .C46 2003. URL http://link.springer.com/content/pdf/10.1007/3-540-27039-6_2.

Wang:2003:UVF

- [WGF⁺03] Jian Wang, Wolfram Gronski, Christian Friedrich, Peter Galenko, and Dieter Herlach. Unusual viscosity feature in spinodal decomposition under shear flow. In Emmerich et al. [ENS03], page ?? CODEN LNCSA6. ISBN 3-540-40367-1. ISSN 1439-7358 (print), 2197-7100 (electronic). LCCN QC173.4.I57 I57 2003. URL <http://www.loc.gov/catdir/enhancements/fy0818/2003060231-d.html>. Papers from the workshop on “Computational Physics of Transport and Interfacial Dynamics”, Dresden, February 25–March 8, 2002.

Wall:2006:LDF

- [WGG06] Wolfgang A. Wall, Axel Gerstenberger, and Peter Gamnitzer. Large deformation fluid-structure interaction — advances in ALE methods and new fixed grid approaches. In Bungartz and Schäfer [BS06], pages 195–232. CODEN LNCSA6. ISBN 3-540-34595-7 (print), 3-540-34596-5 (e-book). ISSN 1439-7358 (print), 2197-7100 (electronic). LCCN TA357.5.F58 F586 200. URL http://link.springer.com/content/pdf/10.1007/3-540-34596-5_9. Proceedings of a workshop on

fluid-structure interactions held in Hohenwart, Germany, in October 2005.

Winter:2009:NST

- [WGGC09] G. Winter, B. González, B. Galván, and H. Carmona. Numerical simulation of transonic flows by a flexible and parallel evolutionary computation. In Tuncer et al. [TGEM09], pages 433–440. CODEN LNCSA6. ISBN 3-540-92743-3 (print), 3-540-92744-1 (e-book). ISSN 1439-7358 (print), 2197-7100 (electronic). LCCN ???? URL http://link.springer.com/content/pdf/10.1007/978-3-540-92744-0_54. Parallel CFD 2007 was held in Antalya, Turkey, from May 21 to 24, 2007.

Wall:2010:XBF

- [WGKM10] W. A. Wall, A. Gerstenberger, U. Küttler, and U. M. Mayer. An XFEM based fixed-grid approach for 3D fluid-structure interaction. In Bungartz et al. [BMS10], pages 327–349. CODEN LNCSA6. ISBN 3-642-14205-2 (print), 3-642-14206-0 (e-book). ISSN 1439-7358 (print), 2197-7100 (electronic). LCCN TA357.5.F58 F586b 2010. URL http://link.springer.com/content/pdf/10.1007/978-3-642-14206-2_12. Selected contributions from the *First International Workshop on Computational Engineering — special topic Fluid-Structure Interactions* held in Herrsching, Germany, in October 2009.

Wallin:2002:LLP

- [WH02] John F. Wallin and Aamer Haque. LPRH- local polynomial regression hydrodynamics. In Griebel and Schweitzer [GS02b], pages 389–400. CODEN LNCSA6. ISBN 3-540-43891-2 (print), 3-642-56103-9 (e-book). ISSN 1439-7358 (print), 2197-7100 (electronic). LCCN QA377 .M45 2003. URL http://link.springer.com/content/pdf/10.1007/978-3-642-56103-0_27. Proceedings of a workshop on Meshfree Methods for Partial Differential Equations, Institut für Angewandte Mathematik, Rheinische Friedrich-Wilhelms Universität Bonn, September 11–14, 2001.

Wong:2014:OIC

- [WH14] Matthias Wong and Markus Hegland. Opticom and the iterative combination technique for convex minimisation. In Garcke and Pflüger [GP14], pages 317–336. ISBN 3-319-04536-9 (paperback), 3-319-04537-7 (e-book). LCCN QA188 .S63

2013. URL http://link.springer.com/chapter/10.1007/978-3-319-04537-5_14/.

Witte:2002:DPF

- [WHH02] B. Witte, R. Hinkelmann, and R. Helmig. Development of a parallel FVM based groundwater flow model. In Breuer et al. [BDZ02], pages 29–36. CODEN LNCSA6. ISBN 3-540-42946-8 (print), 3-642-55919-0 (e-book). ISSN 1439-7358 (print), 2197-7100 (electronic). LCCN Q183.9 .I58 2001. URL http://link.springer.com/content/pdf/10.1007/978-3-642-55919-8_3.

Wang:2013:ODD

- [WHHS13] Cheng Wang, Mingyan He, Ziping Huang, and Pengtao Sun. An overlapping domain decomposition method for a 3D PEMFC model. In Bank [Ban13], pages 119–126. ISBN 3-642-35274-X (hardcover), 3-642-35275-8 (e-book). ISSN 1439-7358 (print), 2197-7100 (electronic). LCCN QA402.2 .I58 2011. URL http://link.springer.com/chapter/10.1007/978-3-642-35275-1_12/.

Wei:2011:PSP

- [WHHW11] Zih-Hao Wei, Feng-Nan Hwang, Tsung-Ming Huang, and Weichung Wang. A parallel scalable PETSc-based Jacobi–Davidson polynomial eigensolver with application in quantum dot simulation. In Huang et al. [HKWX11], pages 157–164. CODEN LNCSA6. ISBN 3-642-11303-6 (print), 3-642-11304-4 (e-book). ISSN 1439-7358 (print), 2197-7100 (electronic). LCCN QA402.2 .I58 2011. URL http://link.springer.com/content/pdf/10.1007/978-3-642-11304-8_16. Papers presented at the 19th International Conference on Domain Decomposition, DD19, hosted by the School of Mathematics and Computational Science of the Xiangtan University and the Hunan Key Laboratory for Computation and Simulation in Science and Engineering and held in Zhanjiajie, China, August 17–22, 2009.

Witteveen:2013:ENO

- [WI13] Jeroen A. S. Witteveen and Gianluca Iaccarino. Essentially non-oscillatory stencil selection and subcell resolution in uncertainty quantification. In Bijl et al. [BLMS13], pages 295–333. ISBN 3-319-00884-6 (hardcover), 3-319-00885-4 (e-book). ISSN 1439-7358 (print), 2197-7100 (electronic). LCCN

???? URL http://link.springer.com/chapter/10.1007/978-3-319-00885-1_7/.

Widlund:2009:AIS

- [Wid09a] Olof B. Widlund. Accommodating irregular subdomains in domain decomposition theory. In Bercovier et al. [BGKW09], pages 87–98. CODEN LNCSA6. ISBN 3-642-02676-1 (print), 3-642-02677-X (e-book). ISSN 1439-7358 (print), 2197-7100 (electronic). LCCN QA402.2 .I584 2009. URL http://link.springer.com/content/pdf/10.1007/978-3-642-02677-5_8.

Widlund:2009:DCS

- [Wid09b] Olof B. Widlund. The development of coarse spaces for domain decomposition algorithms. In Bercovier et al. [BGKW09], pages 241–248. CODEN LNCSA6. ISBN 3-642-02676-1 (print), 3-642-02677-X (e-book). ISSN 1439-7358 (print), 2197-7100 (electronic). LCCN QA402.2 .I584 2009. URL http://link.springer.com/content/pdf/10.1007/978-3-642-02677-5_26.

Wieners:2005:DPO

- [Wie05] Christian Wieners. Distributed point objects. A new concept for parallel finite elements. In Kornhuber et al. [KHP⁺05], pages 175–182. CODEN LNCSA6. ISBN 3-540-22523-4 (print), 3-540-26825-1 (e-book). ISSN 1439-7358 (print), 2197-7100 (electronic). LCCN QA402.2 .I55 2003. URL http://link.springer.com/content/pdf/10.1007/3-540-26825-1_14. Papers from the 15th International Conference on Domain Decomposition, Freie Universität Berlin (FU), Berlin, Germany, July 21–25, 2003.

Wilcox:2000:NMF

- [Wil00] Walter Wilcox. Noise methods for flavor singlet quantities. In Frommer et al. [FLMS00], pages 127–141. CODEN LNCSA6. ISBN 3-540-67732-1 (print), 3-642-58333-4 (e-book). ISSN 1439-7358 (print), 2197-7100 (electronic). LCCN QC793.3.G38 N86 2000. URL http://link.springer.com/chapter/10.1007/978-3-642-58333-9_10/.

Willkomm:2011:PSS

- [Wil11] Johannes Willkomm. Parallel summation of symmetric interparticle forces in smoothed particle hydrodynamics. In

Griebel and Schweitzer [GS11c], pages 235–248. CODEN LNCSA6. ISBN 3-642-16228-2 (print), 3-642-16229-0 (e-book). ISSN 1439-7358 (print), 2197-7100 (electronic). LCCN ????. URL http://link.springer.com/content/pdf/10.1007/978-3-642-16229-9_15. Proceedings of the Fifth International Workshop on Meshfree Methods for Partial Differential Equations held from August 17 to August 19, 2009 in Bonn, Germany.

Wirz:2014:DEH

- [Wir14] Martina Wirz. Detecting edges in high order methods for hyperbolic conservation laws. In Abgrall et al. [ABC⁺14], pages 151–167. ISBN 3-319-05454-6 (paperback), 3-319-05455-4 (e-book). ISSN 1439-7358 (print), 2197-7100 (electronic). LCCN QA374 .A384 2014. URL http://link.springer.com/chapter/10.1007/978-3-319-05455-1_9/.

Widlund:2007:DDM

- [WK07] Olof B. Widlund and David E. Keyes, editors. *Domain Decomposition Methods in Science and Engineering XVI*, volume 55 of *Lecture Notes in Computational Science and Engineering*. Springer-Verlag Inc., New York, NY, USA, 2007. CODEN LNCSA6. ISBN 3-540-34468-3 (print), 3-540-34469-1 (e-book). ISSN 1439-7358 (print), 2197-7100 (electronic). LCCN QA402.2 .I55 2005. URL <http://link.springer.com/book/10.1007/978-3-540-34469-8>; <http://www.springerlink.com/content/978-3-540-34469-8>. Proceedings of the *Sixteenth International Conference on Domain Decomposition Methods*, New York City, January 11–15, 2005.

Wang:2010:MSP

- [WK10] Gang Wang and Chris R. Kleijn. Multi-scale PDE-based design of hierarchically structured porous catalysts. In Koren and Vuik [KV10], pages 437–452. CODEN LNCSA6. ISBN 3-642-03343-1 (print), 3-642-03344-X (e-book). ISSN 1439-7358 (print), 2197-7100 (electronic). LCCN Q183.9 .A35 2010. URL http://link.springer.com/content/pdf/10.1007/978-3-642-03344-5_15.

Woods:2006:REB

- [WKE06] Christopher J. Woods, Michael A. King, and Jonathan W. Essex. Replica-exchange-based free-energy methods. In

Leimkuhler et al. [LCE⁺06], pages 251–259. CODEN LNCSA6. ISBN 3-540-25542-7 (print), 3-540-31618-3 (e-book). ISSN 1439-7358 (print), 2197-7100 (electronic). LCCN QP517.M3 N49 2006. URL http://link.springer.com/content/pdf/10.1007/3-540-31618-3_14. Papers from the fourth edition of *Algorithms for Macromolecular Modelling*, Leicester, UK August 2004.

Warendorf:2000:UPH

- [WKR00] Katina Warendorf, Uwe Küster, and Roland Rühle. Upwind prolongations for a highly-unstructured Euler solver. In Dick et al. [DRV00], pages 271–277. CODEN LNCSA6. ISBN 3-540-67157-9 (print), 3-642-58312-1 (e-book). ISSN 1439-7358 (print), 2197-7100 (electronic). LCCN QA377 .E94 1999. URL http://link.springer.com/chapter/10.1007/978-3-642-58312-4_37/.

Willcox:2005:MRA

- [WL05] Karen Willcox and Guillaume Lassaux. Model reduction of an actively controlled supersonic diffuser. In Benner et al. [BMS05c], pages 357–361. CODEN LNCSA6. ISBN 3-540-24545-6 (print), 3-540-27909-1 (e-book). ISSN 1439-7358 (print), 2197-7100 (electronic). LCCN TA347.C68 D56 2005. URL http://link.springer.com/content/pdf/10.1007/3-540-27909-1_20.

Wallraff:2014:AHO

- [WL14] Marcel Wallraff and Tobias Leicht. 3D application of higher order multigrid algorithms for a RANS- $k\omega$ DG-Solver. In Abgrall et al. [ABC⁺14], pages 77–88. ISBN 3-319-05454-6 (paperback), 3-319-05455-4 (e-book). ISSN 1439-7358 (print), 2197-7100 (electronic). LCCN QA374 .A384 2014. URL http://link.springer.com/chapter/10.1007/978-3-319-05455-1_5/.

Wang:2009:ASS

- [WLLY09] Cai-Zhuang Wang, Gun-Do Lee, Ju Li, and Sidney Yip. Atomistic simulation studies of complex carbon and silicon systems using environment-dependent tight-binding potentials. In Yip and Diaz de la Rubia [YD09], pages 97–121. CODEN LNCSA6. ISBN 1-4020-9740-9 (print), 1-4020-9741-7 (e-book). ISSN 1439-7358 (print), 2197-7100 (electronic). LCCN ????. URL <http://link.springer.com/content/pdf/10.>

1007/978-1-4020-9741-6_9. Previously published in *Scientific Modeling and Simulations*, Volume 15, Issues 1–3, 2008.

Widlowski:2006:RVL

- [WLP⁺06] Jean-Luc Widlowski, Thomas Lavergne, Bernard Pinty, Michel Verstraete, and Nadine Gobron. Rayspread: a virtual laboratory for rapid BRF simulations over 3-D plant canopies. In Graziani [Gra06], pages 211–231. CODEN LNCSA6. ISBN 3-540-28122-3 (print), 3-540-28125-8 (e-book). ISSN 1439-7358 (print), 2197-7100 (electronic). LCCN MLCM 2006/40189 (Q); QC793.3.T7 C66 2006. URL http://link.springer.com/content/pdf/10.1007/3-540-28125-8_10.

Wang:2009:TBH

- [WLYL09] Cai-Zhuang Wang, Wen-Cai Lu, Yong-Xin Yao, and Ju Li. Tight-binding Hamiltonian from first-principles calculations. In Yip and Diaz de la Rubia [YD09], pages 81–95. CODEN LNCSA6. ISBN 1-4020-9740-9 (print), 1-4020-9741-7 (e-book). ISSN 1439-7358 (print), 2197-7100 (electronic). LCCN ????. URL http://link.springer.com/content/pdf/10.1007/978-1-4020-9741-6_8. Previously published in *Scientific Modeling and Simulations*, Volume 15, Issues 1–3, 2008.

Wilbers:2012:IJT

- [WMA12] Ilmar M. Wilbers, Kent-Andre Mardal, and Martin S. Alnæs. Instant: just-in-time compilation of C/C++ in Python. In Logg et al. [LMW12a], pages 257–272. CODEN LNCSA6. ISBN 3-642-23098-9 (print), 3-642-23099-7 (e-book). ISSN 1439-7358 (print), 2197-7100 (electronic). LCCN ????. URL http://link.springer.com/content/pdf/10.1007/978-3-642-23099-8_14. The software developed by the FEniCS Project is free for all to use and modify (licensed under the GNU (L)GPL), and so is this book.

Wienands:2000:FAK

- [WO00] R. Wienands and C. W. Oosterlee. Fourier analysis for Krylov subspace acceleration of multigrid with application to 3D anisotropic problems. In Dick et al. [DRV00], pages 278–284. CODEN LNCSA6. ISBN 3-540-67157-9 (print), 3-642-58312-1 (e-book). ISSN 1439-7358 (print), 2197-7100 (electronic). LCCN QA377 .E94 1999. URL http://link.springer.com/chapter/10.1007/978-3-642-58312-4_38/.

Wendling:2007:IDN

- [WO07] Ingmar Wendling and Martin Oberlack. On the investigation of a dynamic nonlinear subgrid-scale model. In Kassinis et al. [KLIM07], pages 89–97. CODEN LNCSA6. ISBN 3-540-34233-8 (print), 3-540-34234-6 (e-book). ISSN 1439-7358 (print), 2197-7100 (electronic). LCCN TA357.5.T87 C66 2007. URL http://link.springer.com/content/pdf/10.1007/978-3-540-34234-2_7. Proceedings of the symposium on *Complex Effects in Large Eddy Simulation* held in Lemesos (Limassol), Cyprus, September 21–24, 2005.

Wohlmuth:2001:DTB

- [Woh01a] Barbara I. Wohlmuth. Discretization techniques based on domain decomposition. In *Discretization Methods and Iterative Solvers Based on Domain Decomposition* [Woh01d], pages 1–84. CODEN LNCSA6. ISBN 3-540-41083-X (softcover), 3-642-56767-3 (e-book). ISSN 1439-7358 (print), 2197-7100 (electronic). LCCN QA402.2.W64 2001. URL http://link.springer.com/content/pdf/10.1007/978-3-642-56767-4_1.

Wohlmuth:2001:FM

- [Woh01b] Barbara I. Wohlmuth. Front matter. In *Discretization Methods and Iterative Solvers Based on Domain Decomposition* [Woh01d], pages i–x. CODEN LNCSA6. ISBN 3-540-41083-X (softcover), 3-642-56767-3 (e-book). ISSN 1439-7358 (print), 2197-7100 (electronic). LCCN QA402.2.W64 2001. URL <http://link.springer.com/content/pdf/bfm:978-3-642-56767-4/1>.

Wohlmuth:2001:ISB

- [Woh01c] Barbara I. Wohlmuth. Iterative solvers based on domain decomposition. In *Discretization Methods and Iterative Solvers Based on Domain Decomposition* [Woh01d], pages 85–176. CODEN LNCSA6. ISBN 3-540-41083-X (softcover), 3-642-56767-3 (e-book). ISSN 1439-7358 (print), 2197-7100 (electronic). LCCN QA402.2.W64 2001. URL http://link.springer.com/content/pdf/10.1007/978-3-642-56767-4_2.

Wohlmuth:2001:DMI

- [Woh01d] Barbara Irmgard Wohlmuth. *Discretization Methods and Iterative Solvers Based on Domain Decomposition*, volume 17

of *Lecture Notes in Computational Science and Engineering*. Springer-Verlag Inc., New York, NY, USA, 2001. CODEN LNCSA6. ISBN 3-540-41083-X (softcover), 3-642-56767-3 (e-book). ISSN 1439-7358 (print), 2197-7100 (electronic). x + 197 pp. LCCN QA402.2.W64 2001. URL <http://link.springer.com/book/10.1007/978-3-642-56767-4>; <http://www.springerlink.com/content/978-3-642-56767-4>.

Widlowski:2008:CRM

- [WP08] J.-L. Widlowski and B. Pinty. Canopy reflectance model benchmarking: RAMI and the ROMC. In Graziani [Gra08b], pages 177–206. CODEN LNCSA6. ISBN 3-540-77361-4 (print), 3-540-77362-2 (e-book). ISSN 1439-7358 (print), 2197-7100 (electronic). LCCN ???? URL http://link.springer.com/content/pdf/10.1007/978-3-540-77362-7_8. Proceedings of the 2006 Computational Methods in Transport (CMTW) conference.

WeberDosSantos:2005:PTB

- [WPBV05] Rodrigo Weber Dos Santos, G. Plank, S. Bauer, and E. J. Vigmond. Preconditioning techniques for the bidomain equations. In Kornhuber et al. [KHP⁺05], pages 571–580. CODEN LNCSA6. ISBN 3-540-22523-4 (print), 3-540-26825-1 (e-book). ISSN 1439-7358 (print), 2197-7100 (electronic). LCCN QA402.2 .I55 2003. URL http://link.springer.com/content/pdf/10.1007/3-540-26825-1_60. Papers from the 15th International Conference on Domain Decomposition, Freie Universität Berlin (FU), Berlin, Germany, July 21–25, 2003.

Wang:2012:NM

- [WPWK12] Wenqing Wang, Chan-Hee Park, Norihiro Watanabe, and Olaf Kolditz. Numerical methods. In Kolditz et al. [KGSW12], pages 61–85. CODEN LNCSA6. ISBN 3-642-27176-6 (print), 3-642-27177-4 (e-book). ISSN 1439-7358 (print), 2197-7100 (electronic). LCCN ???? URL http://link.springer.com/content/pdf/10.1007/978-3-642-27177-9_3.

Wachter:2002:UHL

- [WS02] M. Wächter and G. Sachs. Unsteady heat load simulation for hypersonic cruise optimization. In Breuer et al. [BDZ02], pages 325–332. CODEN LNCSA6. ISBN 3-

540-42946-8 (print), 3-642-55919-0 (e-book). ISSN 1439-7358 (print), 2197-7100 (electronic). LCCN Q183.9 .I58 2001. URL http://link.springer.com/content/pdf/10.1007/978-3-642-55919-8_36.

Wahle:2003:IIT

- [WS03] J. Wahle and M. Schreckenberg. Information in intelligent transportation system. In Emmerich et al. [ENS03], page ?? CODEN LNCSA6. ISBN 3-540-40367-1. ISSN 1439-7358 (print), 2197-7100 (electronic). LCCN QC173.4.I57 I57 2003. URL <http://www.loc.gov/catdir/enhancements/fy0818/2003060231-d.html>. Papers from the workshop on “Computational Physics of Transport and Interfacial Dynamics”, Dresden, February 25–March 8, 2002.

Wang:2011:EPP

- [WSZ11] Junxian Wang, Shi Shu, and Liuqiang Zhong. Efficient parallel preconditioners for high-order finite element discretizations of H(grad) and H(curl) problems. In Huang et al. [HKWX11], pages 325–332. CODEN LNCSA6. ISBN 3-642-11303-6 (print), 3-642-11304-4 (e-book). ISSN 1439-7358 (print), 2197-7100 (electronic). LCCN QA402.2 .I58 2011. URL http://link.springer.com/content/pdf/10.1007/978-3-642-11304-8_37. Papers presented at the 19th International Conference on Domain Decomposition, DD19, hosted by the School of Mathematics and Computational Science of the Xiangtan University and the Hunan Key Laboratory for Computation and Simulation in Science and Engineering and held in Zhanjiajie, China, August 17–22, 2009.

Watts:2009:NSS

- [WT09] Marvin Watts and Shuangzhang Tu. Numerical simulation of a spinning projectile using parallel and vectorized unstructured flow solver. In Tuncer et al. [TGEM09], pages 1–8. CODEN LNCSA6. ISBN 3-540-92743-3 (print), 3-540-92744-1 (e-book). ISSN 1439-7358 (print), 2197-7100 (electronic). LCCN ????. URL http://link.springer.com/content/pdf/10.1007/978-3-540-92744-0_1. Parallel CFD 2007 was held in Antalya, Turkey, from May 21 to 24, 2007.

Wang:2010:HAR

- [WT10] C. M. Wang and Z. Y. Tay. Hydroelastic analysis and response of pontoon-type very large floating structures. In

Bungartz et al. [BMS10], pages 103–130. CODEN LNCSA6. ISBN 3-642-14205-2 (print), 3-642-14206-0 (e-book). ISSN 1439-7358 (print), 2197-7100 (electronic). LCCN TA357.5.F58 F586b 2010. URL http://link.springer.com/content/pdf/10.1007/978-3-642-14206-2_5. Selected contributions from the *First International Workshop on Computational Engineering — special topic Fluid-Structure Interactions* held in Herrsching, Germany, in October 2009.

Wu:2015:IMG

- [Wu15] Cheng-Tang Wu. An immersed meshfree Galerkin approach for particle-reinforced composite analysis. In Griebel and Schweitzer [GS14], pages 293–315. ISBN 3-319-06898-9. LCCN QA71 .G75 2015; QA377. URL http://link.springer.com/chapter/10.1007/978-3-319-06898-5_15/.

Wagner:1998:FDR

- [WW98] Christian Wagner and Gabriel Wittum. Filtering decompositions with respect to adaptive test vectors. In Hackbusch and Wittum [HW98], pages 320–334. CODEN LNCSA6. ISBN 3-540-63133-X (softcover), 3-642-58734-8 (e-book). ISSN 1439-7358 (print), 2197-7100 (electronic). LCCN QA377 .E94 1996. URL http://link.springer.com/chapter/10.1007/978-3-642-58734-4_19/.

Werder:2004:CPH

- [WWAK04] Thomas Werder, Jens H. Walther, Joonas Asikainen, and Petros Koumoutsakos. Continuum-particle hybrid methods for dense fluids. In Attinger and Koumoutsakos [AK04], pages 227–235. CODEN LNCSA6. ISBN 3-540-21180-2 (print), 3-642-18756-0 (e-book). ISSN 1439-7358 (print), 2197-7100 (electronic). LCCN TA342 .M85 2004. URL http://link.springer.com/content/pdf/10.1007/978-3-642-18756-8_17. Proceedings of a Summer Program in Multi-Scale Modelling and Simulation held in Lugano, Switzerland, between August 4th and 30th, 2003.

Wildey:2013:PMF

- [WX13] Tim Wildey and Guangri Xue. Preconditioning for mixed finite element formulations of elliptic problems. In Bank [Ban13], pages 175–182. ISBN 3-642-35274-X (hardcover), 3-642-35275-8 (e-book). ISSN 1439-7358 (print), 2197-7100

(electronic). LCCN QA402.2 .I58 2011. URL http://link.springer.com/chapter/10.1007/978-3-642-35275-1_19/.

Xu:2005:DRB

- [XB05] Jingxiao Xu and Ted Belytschko. Discontinuous radial basis function approximations for meshfree methods. In Griebel and Schweitzer [GS05], pages 231–253. CODEN LNCSA6. ISBN 3-540-23026-2 (print), 3-540-27099-X (e-book). ISSN 1439-7358 (print), 2197-7100 (electronic). LCCN QA377 .M452 2005. URL http://link.springer.com/content/pdf/10.1007/3-540-27099-X_13. Proceedings of the Second International Workshop on Meshfree Methods for Partial Differential Equations, Institut für Numerische Simulation Rheinische Friedrich–Wilhelms Universität Bonn, September 15–17, 2003.

Xin:2011:SPM

- [XCL11] S. Xin, J. Chergui, and P. Le Quéré. 3D spectral parallel multi-domain computing for natural convection flows. In Tromeur-Dervout et al. [TDBEE11], pages 163–171. CODEN LNCSA6. ISBN 3-642-14437-3 (print), 3-642-14438-1 (e-book). ISSN 1439-7358 (print), 2197-7100 (electronic). LCCN ???? URL http://link.springer.com/content/pdf/10.1007/978-3-642-14438-7_17. Proceedings of the twentieth meeting, Parallel CFD 2008, held May 19–22, 2008 in Lyon, France.

Xu:2005:FTA

- [XGL05] Zhiliang Xu, James Glimm, and Xiaolin Li. Front tracking algorithm using adaptively refined meshes. In Plewa et al. [PLW05], pages 83–89. CODEN LNCSA6. ISBN 3-540-21147-0 (print), 3-540-27039-6 (e-book). ISSN 1439-7358 (print), 2197-7100 (electronic). LCCN QA377 .C46 2003. URL http://link.springer.com/content/pdf/10.1007/3-540-27039-6_5.

Xuemin:2009:BNP

- [XL09] Tu Xuemin and Jing Li. BDDC for nonsymmetric positive definite and symmetric indefinite problems. In Bercovier et al. [BGKW09], pages 75–86. CODEN LNCSA6. ISBN 3-642-02676-1 (print), 3-642-02677-X (e-book). ISSN 1439-7358 (print), 2197-7100 (electronic). LCCN QA402.2 .I584 2009. URL http://link.springer.com/content/pdf/10.1007/978-3-642-02677-5_7.

Xu:2012:T

- [XWW⁺12] Wenjie Xu, Wenqing Wang, Norihiro Watanabe, Jürgen Hesser, and Stephanie Krug. Thermomechanics. In Kolditz et al. [KGSW12], pages 299–311. CODEN LNCSA6. ISBN 3-642-27176-6 (print), 3-642-27177-4 (e-book). ISSN 1439-7358 (print), 2197-7100 (electronic). LCCN ???? URL http://link.springer.com/content/pdf/10.1007/978-3-642-27177-9_14.

Xiao:2006:DAC

- [XXM06] Ying Xiao, Ming Xue, and William Martin. Development of an adjoint for a complex atmospheric model, the ARPS, using TAF. In Bücker et al. [BCH⁺06], pages 263–273. CODEN LNCSA6. ISBN 3-540-28403-6 (print), 3-540-28438-9 (e-book). ISSN 1439-7358 (print), 2197-7100 (electronic). LCCN QA304 .I58 2006. URL http://link.springer.com/content/pdf/10.1007/3-540-28438-9_23. Proceedings of the Fourth International Conference on Automatic Differentiation, July 20–23, Chicago, Illinois.

Xu:2002:MMG

- [XZ02] Jinchao Xu and Ludmil T. Zikatanov. On multigrid methods for generalized finite element methods. In Griebel and Schweitzer [GS02b], pages 401–418. CODEN LNCSA6. ISBN 3-540-43891-2 (print), 3-642-56103-9 (e-book). ISSN 1439-7358 (print), 2197-7100 (electronic). LCCN QA377 .M45 2003. URL http://link.springer.com/content/pdf/10.1007/978-3-642-56103-0_28. Proceedings of a workshop on Meshfree Methods for Partial Differential Equations, Institut für Angewandte Mathematik, Rheinische Friedrich-Wilhelms Universität Bonn, September 11–14, 2001.

Xu:2011:RPH

- [XZ11] Jinchao Xu and Yunrong Zhu. Robust preconditioner for H(curl) interface problems. In Huang et al. [HKWX11], pages 173–180. CODEN LNCSA6. ISBN 3-642-11303-6 (print), 3-642-11304-4 (e-book). ISSN 1439-7358 (print), 2197-7100 (electronic). LCCN QA402.2 .I58 2011. URL http://link.springer.com/content/pdf/10.1007/978-3-642-11304-8_18. Papers presented at the 19th International Conference on Domain Decomposition, DD19, hosted by the School of Mathematics and Computational Science of the Xiangtan University and the Hunan Key Laboratory for Com-

putation and Simulation in Science and Engineering and held in Zhanjiajie, China, August 17–22, 2009.

Yabe:2002:USS

- [Yab02] Takashi Yabe. Universal and simultaneous solution of solid, liquid and gas in Cartesian-grid-based CIP method. In Babuška et al. [BCM02], pages 57–71. CODEN LNCSA6. ISBN 3-540-42399-0 (print), 3-642-56288-4 (e-book). ISSN 1439-7358 (print), 2197-7100 (electronic). LCCN QA808.2 .I59 2000. URL http://link.springer.com/content/pdf/10.1007/978-3-642-56288-4_5.

Yakovlev:2001:CEC

- [Yak01] V. V. Yakovlev. Commercial EM codes suitable for modeling of microwave heating — a comparative review. In van Rienen et al. [vRGH01], pages 87–95. CODEN LNCSA6. ISBN 3-540-42173-4 (softcover), 3-642-56470-4 (e-book). ISSN 1439-7358 (print), 2197-7100 (electronic). LCCN TK5 .S35 2001. URL http://link.springer.com/content/pdf/10.1007/978-3-642-56470-3_8. Selected contributions presented at the 3rd International Workshop on Scientific Computing in Electrical Engineering.

Yang:2006:PAM

- [Yan06] Ulrike Meier Yang. Parallel algebraic multigrid methods — high performance preconditioners. In Bruaset and Tveito [BT06], pages 209–236. CODEN LNCSA6. ISBN 3-540-29076-1 (print), 3-540-31619-1 (e-book). ISSN 1439-7358 (print), 2197-7100 (electronic). LCCN QA377 .N87 2006. URL http://link.springer.com/content/pdf/10.1007/3-540-31619-1_6.

Yin:2000:STD

- [YAS⁺00] Lin Yin, Amit Acharya, Nahil Sobh, Robert B. Haber, and Daniel A. Tortorelli. A space–time discontinuous Galerkin method for elastodynamic analysis. In Cockburn et al. [CKS00b], pages 459–464. CODEN LNCSA6. ISBN 3-540-66787-3, 3-642-64098-2 (print), 3-642-59721-1 (e-book). ISSN 1439-7358 (print), 2197-7100 (electronic). LCCN TA347.F5 D57 2000. URL http://link.springer.com/chapter/10.1007/978-3-642-59721-3_48/. Papers from the first international symposium on DGM Newport, Rhode Island, USA, May 24–26, 1999.

Yang:2011:NKS

- [YC11a] Chao Yang and Xiao-Chuan Cai. Newton–Krylov–Schwarz method for a spherical shallow water model. In Huang et al. [HKWX11], pages 149–155. CODEN LNCSA6. ISBN 3-642-11303-6 (print), 3-642-11304-4 (e-book). ISSN 1439-7358 (print), 2197-7100 (electronic). LCCN QA402.2 .I58 2011. URL http://link.springer.com/content/pdf/10.1007/978-3-642-11304-8_15. Papers presented at the 19th International Conference on Domain Decomposition, DD19, hosted by the School of Mathematics and Computational Science of the Xiangtan University and the Hunan Key Laboratory for Computation and Simulation in Science and Engineering and held in Zhanjiajie, China, August 17–22, 2009.

Yang:2011:DDM

- [YC11b] Haijian Yang and Xiao-Chuan Cai. Domain decomposition methods for a complementarity problem. In Huang et al. [HKWX11], pages 447–454. CODEN LNCSA6. ISBN 3-642-11303-6 (print), 3-642-11304-4 (e-book). ISSN 1439-7358 (print), 2197-7100 (electronic). LCCN QA402.2 .I58 2011. URL http://link.springer.com/content/pdf/10.1007/978-3-642-11304-8_52. Papers presented at the 19th International Conference on Domain Decomposition, DD19, hosted by the School of Mathematics and Computational Science of the Xiangtan University and the Hunan Key Laboratory for Computation and Simulation in Science and Engineering and held in Zhanjiajie, China, August 17–22, 2009.

Yip:2009:SMS

- [YD09] Sidney Yip and Tomás Diaz de la Rubia, editors. *Scientific Modeling and Simulations*, volume 68 of *Lecture Notes in Computational Science and Engineering*. Springer-Verlag Inc., New York, NY, USA, 2009. CODEN LNCSA6. ISBN 1-4020-9740-9 (print), 1-4020-9741-7 (e-book). ISSN 1439-7358 (print), 2197-7100 (electronic). vi + 393 pp. LCCN ???? URL <http://link.springer.com/book/10.1007/978-1-4020-9741-6>; <http://www.springerlink.com/content/978-1-4020-9741-6>. Previously published in *Scientific Modeling and Simulations*, Volume 15, Issues 1–3, 2008.

Yuan:2004:DBL

- [YEÖ04] Xin Yuan, Mehmet Önder Efe, and Hitay Özbay. On delay-based linear models and robust control of cavity flows. In Niculescu and Gu [NG04], pages 287–298. CODEN LNCSA6. ISBN 3-540-20890-9 (print), 3-642-18482-0 (e-book). ISSN 1439-7358 (print), 2197-7100 (electronic). LCCN TJ213 .A253 2004. URL http://link.springer.com/content/pdf/10.1007/978-3-642-18482-6_21. Most of the chapters are based on the materials presented in the CNRS-NSF Workshop *Advances in Time-Delay Systems* held in Paris in January 22–24, 2003.

Young:2003:NEA

- [YHM⁺03] D. P. Young, W. P. Huffman, R. G. Melvin, C. L. Hilmes, and F. T. Johnson. Nonlinear elimination in aerodynamic analysis and design optimization. In Biegler et al. [BGHvBW03a], pages 17–43. CODEN LNCSA6. ISBN 3-540-05045-0 (print), 3-642-55508-X (e-book). ISSN 1439-7358 (print), 2197-7100 (electronic). LCCN QA402.5 .L358 2003. URL http://link.springer.com/content/pdf/10.1007/978-3-642-55508-4_2.

Yin:2008:LNP

- [Yin08] Hujun Yin. Learning nonlinear principal manifolds by self-organising maps. In Gorban et al. [GKWZ08], pages 68–95. CODEN LNCSA6. ISBN 3-540-73749-9 (print), 3-540-73750-2 (e-book). ISSN 1439-7358 (print), 2197-7100 (electronic). LCCN QA278.5 .P75 2008. URL http://link.springer.com/content/pdf/10.1007/978-3-540-73750-6_3.

Ying:2009:FAB

- [Yin09] Lexing Ying. Fast algorithms for boundary integral equations. In Engquist et al. [ELR09], pages 139–193. CODEN LNCSA6. ISBN 3-540-88856-X (paperback), 3-540-88857-8 (e-book). ISSN 1439-7358 (print), 2197-7100 (electronic). LCCN Q183.9 .M86 2009. URL http://link.springer.com/content/pdf/10.1007/978-3-540-88857-4_3. Summer School on Multiscale Modeling and Simulation in Science, Bosön, Lidingö outside Stockholm, Sweden, June 2007.

Yip:2009:RJC

- [Yip09] Sidney Yip. A retrospective on the journal of computer-aided materials design (JCAD), 1993–2007. In Yip and Diaz de

la Rubia [YD09], pages 3–4. CODEN LNCSA6. ISBN 1-4020-9740-9 (print), 1-4020-9741-7 (e-book). ISSN 1439-7358 (print), 2197-7100 (electronic). LCCN ????. URL http://link.springer.com/content/pdf/10.1007/978-1-4020-9741-6_2. Previously published in *Scientific Modeling and Simulations*, Volume 15, Issues 1–3, 2008.

Yildirim:2009:TDS

- [YKI09] Gökçe Yildirim, H. Yalim Keleş, and Veysi Isler. Three dimensional smoke simulation on programmable graphics hardware. In Tuncer et al. [TGEM09], pages 385–392. CODEN LNCSA6. ISBN 3-540-92743-3 (print), 3-540-92744-1 (e-book). ISSN 1439-7358 (print), 2197-7100 (electronic). LCCN ????. URL http://link.springer.com/content/pdf/10.1007/978-3-540-92744-0_48. Parallel CFD 2007 was held in Antalya, Turkey, from May 21 to 24, 2007.

Young:2005:NMC

- [YLT05] Ross D. Young, Derek B. Leinweber, and Anthony W. Thomas. The nucleon mass in chiral effective field theory. In Boriçi et al. [BFJ+05], pages 113–120. CODEN LNCSA6. ISBN 3-540-21257-4 (print), 3-540-28504-0 (e-book). ISSN 1439-7358 (print), 2197-7100 (electronic). LCCN QC793.3.Q35 I56 2003. URL http://link.springer.com/content/pdf/10.1007/3-540-28504-0_11.

Yamakawa:2009:NSC

- [YM09] Masashi Yamakawa and Kenichi Matsuno. Numerical simulation of compressible flow using three-dimensional unstructured Added/ eliminated grid method. In Tuncer et al. [TGEM09], pages 245–252. CODEN LNCSA6. ISBN 3-540-92743-3 (print), 3-540-92744-1 (e-book). ISSN 1439-7358 (print), 2197-7100 (electronic). LCCN ????. URL http://link.springer.com/content/pdf/10.1007/978-3-540-92744-0_30. Parallel CFD 2007 was held in Antalya, Turkey, from May 21 to 24, 2007.

Yosibash:2015:CBM

- [YML15] Z. Yosibash, K. Myers, and Y. Levi. Computational bone mechanics: From the cloud to an orthopedists mobile device. In Mehl et al. [MBS15], pages 235–249. ISBN 3-319-22996-6, 3-319-22997-4 (e-book). LCCN QA71-

90; TA329. URL http://link.springer.com/chapter/10.1007/978-3-319-22997-3_14/.

Yilmaz:2011:SCP

- [YPA⁺11] Erdal Yilmaz, Resat U. Payli, Hassan U. Akay, Akin Ecer, and Jingxin Liu. Scalability considerations of a parallel flow solver on large computing systems. In Tromeur-Dervout et al. [TDBEE11], pages 321–330. CODEN LNCSA6. ISBN 3-642-14437-3 (print), 3-642-14438-1 (e-book). ISSN 1439-7358 (print), 2197-7100 (electronic). LCCN ???? URL http://link.springer.com/content/pdf/10.1007/978-3-642-14438-7_34. Proceedings of the twentieth meeting, Parallel CFD 2008, held May 19–22, 2008 in Lyon, France.

Yilmaz:2009:HPC

- [YPAE09] E. Yilmaz, R. U. Payli, H. U. Akay, and A. Ecer. Hybrid parallelism for CFD simulations: Combining MPI with OpenMP. In Tuncer et al. [TGEM09], pages 401–408. CODEN LNCSA6. ISBN 3-540-92743-3 (print), 3-540-92744-1 (e-book). ISSN 1439-7358 (print), 2197-7100 (electronic). LCCN ???? URL http://link.springer.com/content/pdf/10.1007/978-3-540-92744-0_50. Parallel CFD 2007 was held in Antalya, Turkey, from May 21 to 24, 2007.

Yvonnet:2005:TMI

- [YR05] Julien Yvonnet and David Ryckelynck. Treating moving interfaces in thermal models with the C-NEM. In Griebel and Schweitzer [GS05], pages 255–269. CODEN LNCSA6. ISBN 3-540-23026-2 (print), 3-540-27099-X (e-book). ISSN 1439-7358 (print), 2197-7100 (electronic). LCCN QA377 .M452 2005. URL http://link.springer.com/content/pdf/10.1007/3-540-27099-X_14. Proceedings of the Second International Workshop on Meshfree Methods for Partial Differential Equations, Institut für Numerische Simulation Rheinische Friedrich–Wilhelms Universität Bonn, September 15–17, 2003.

Yee:2011:HOF

- [YS11] H. C. Yee and Björn Sjögren. High order filter methods for wide range of compressible flow speeds. In Hesthaven and Rønquist [HR11], pages 327–337. CODEN LNCSA6. ISBN 3-642-15336-4 (print), 3-642-15337-2 (e-book). ISSN 1439-7358 (print), 2197-7100 (electronic). LCCN

???? URL http://link.springer.com/content/pdf/10.1007/978-3-642-15337-2_30.

Yserentant:2002:FMM

- [Yse02a] H Yserentant. The finite mass method — a new approach to the solution of flow problems. In Breuer et al. [BDZ02], pages 149–156. CODEN LNCSA6. ISBN 3-540-42946-8 (print), 3-642-55919-0 (e-book). ISSN 1439-7358 (print), 2197-7100 (electronic). LCCN Q183.9 .I58 2001. URL http://link.springer.com/content/pdf/10.1007/978-3-642-55919-8_17.

Yserentant:2002:CFM

- [Yse02b] Harry Yserentant. The convergence of the finite mass method for flows in given force and velocity fields. In Griebel and Schweitzer [GS02b], pages 419–440. CODEN LNCSA6. ISBN 3-540-43891-2 (print), 3-642-56103-9 (e-book). ISSN 1439-7358 (print), 2197-7100 (electronic). LCCN QA377 .M45 2003. URL http://link.springer.com/content/pdf/10.1007/978-3-642-56103-0_29. Proceedings of a workshop on Meshfree Methods for Partial Differential Equations, Institut für Angewandte Mathematik, Rheinische Friedrich-Wilhelms Universität Bonn, September 11–14, 2001.

Yserentant:2013:MLD

- [Yse13] Harry Yserentant. Multi-level decompositions of electronic wave functions. In Bank [Ban13], pages 63–72. ISBN 3-642-35274-X (hardcover), 3-642-35275-8 (e-book). ISSN 1439-7358 (print), 2197-7100 (electronic). LCCN QA402.2 .I58 2011. URL http://link.springer.com/chapter/10.1007/978-3-642-35275-1_6/.

Younes:2012:HOU

- [YT12a] Ahmad Bani Younes and James Turner. High-order uncertainty propagation enabled by computational differentiation. In Forth et al. [FHP⁺12], pages 251–260. CODEN LNCSA6. ISBN 3-642-30022-7 (print), 3-642-30023-5 (e-book). ISSN 1439-7358 (print), 2197-7100 (electronic). LCCN ????? URL http://link.springer.com/content/pdf/10.1007/978-3-642-30023-3_23. Proceedings of the Sixth International Conference on Automatic Differentiation (AD2012) held July 23–27, 2012, in Fort Collins, Colorado, USA.

Younis:2012:LKW

- [YT12b] Rami M. Younis and Hamdi A. Tchelepi. Lazy K-way linear combination kernels for efficient runtime sparse Jacobian matrix evaluations in C++. In Forth et al. [FHP⁺12], pages 333–342. CODEN LNCSA6. ISBN 3-642-30022-7 (print), 3-642-30023-5 (e-book). ISSN 1439-7358 (print), 2197-7100 (electronic). LCCN ???? URL http://link.springer.com/content/pdf/10.1007/978-3-642-30023-3_30. Proceedings of the Sixth International Conference on Automatic Differentiation (AD2012) held July 23–27, 2012, in Fort Collins, Colorado, USA.

Yvonnet:2007:BHN

- [YVC07] J. Yvonnet, P. Villon, and F. Chinesta. Bubble and Hermite natural element approximations. In Griebel and Schweitzer [GS07b], pages 283–298. CODEN LNCSA6. ISBN 3-540-46214-7 (print), 3-540-46222-8 (e-book). ISSN 1439-7358 (print), 2197-7100 (electronic). LCCN QA377 .M45 2005. URL http://link.springer.com/content/pdf/10.1007/978-3-540-46222-4_17. Third international workshop on Meshfree Methods for Partial Differential Equations held from September 12 to September 15, 2005 in Bonn, Germany.

Yang:2011:NBF

- [YZ11] Huidong Yang and Walter Zulehner. A Newton based fluid-structure interaction solver with algebraic multigrid methods on hybrid meshes. In Huang et al. [HKWX11], pages 285–292. CODEN LNCSA6. ISBN 3-642-11303-6 (print), 3-642-11304-4 (e-book). ISSN 1439-7358 (print), 2197-7100 (electronic). LCCN QA402.2 .I58 2011. URL http://link.springer.com/content/pdf/10.1007/978-3-642-11304-8_32. Papers presented at the 19th International Conference on Domain Decomposition, DD19, hosted by the School of Mathematics and Computational Science of the Xiangtan University and the Hunan Key Laboratory for Computation and Simulation in Science and Engineering and held in Zhanjiajie, China, August 17–22, 2009.

Zabaras:2000:OOA

- [Zab00] Nicholas Zabaras. An object-oriented approach to the finite element modeling and design of material processes. In Langtangen et al. [LBQ00], pages 239–281. CODEN LNCSA6. ISBN

3-540-66557-9 (softcover), 3-642-57172-7 (e-book). ISSN 1439-7358 (print), 2197-7100 (electronic). LCCN QA76.6 .A336 2000. URL http://link.springer.com/chapter/10.1007/978-3-642-57172-5_8/. Papers from an International Workshop on Modern Software Tools for Scientific Computing (SciTools'98), Oslo, Norway, September 14–16, 1998.

Zisowsky:2014:TSK

- [ZAEK14] Andrea Zisowsky, Anton Arnold, Matthias Ehrhardt, and Thomas Koprucki. Transient simulation of $k \cdot p$ -Schrödinger systems using discrete transparent boundary conditions. In Ehrhardt and Koprucki [EK14], pages 247–272. ISBN 3-319-01426-9, 3-319-01427-7 (e-book). ISSN 1439-7358 (print), 2197-7100 (electronic). LCCN QA71-90; QA300. URL http://link.springer.com/chapter/10.1007/978-3-319-01427-2_7/.

Zaoui:2008:LEP

- [Zao08] Fabrice Zaoui. Large electrical power systems optimization using automatic differentiation. In Bischof et al. [BBH⁺08], pages 293–302. CODEN LNCSA6. ISBN 3-540-68935-4 (print), 3-540-68942-7 (e-book). ISSN 1439-7358 (print), 2197-7100 (electronic). LCCN QA304 .I58 2008. URL http://link.springer.com/content/pdf/10.1007/978-3-540-68942-3_26.

Zhang:2011:APM

- [ZC11] Zhongqiang Zhang and Minseok Choi. Anchor points matter in ANOVA decomposition. In Hesthaven and Rønquist [HR11], pages 347–355. CODEN LNCSA6. ISBN 3-642-15336-4 (print), 3-642-15337-2 (e-book). ISSN 1439-7358 (print), 2197-7100 (electronic). LCCN ???? URL http://link.springer.com/content/pdf/10.1007/978-3-642-15337-2_32.

Zagzoule:2011:HRC

- [ZCC11] M. Zagzoule, P. Cathalifaud, and J. Cousteix. High Reynolds channel flows: Variable curvature. In Clavero et al. [CGL11], pages 245–253. CODEN LNCSA6. ISBN 3-642-19664-0 (print), 3-642-19665-9 (e-book). ISSN 1439-7358 (print), 2197-7100 (electronic). LCCN ???? URL http://link.springer.com/content/pdf/10.1007/978-3-642-19665-2_26. Selected papers from the proceedings of BAIL 2010 (Boundary

and Interior Layers — Computational and Asymptotic Methods), held from 5 to 9 July 2010 at the University of Zaragoza, Spain.

Zlotnik:2015:SPF

- [ZDZR15] Alexander Zlotnik, Bernard Ducomet, Ilya Zlotnik, and Alla Romanova. Splitting in potential finite-difference schemes with discrete transparent boundary conditions for the time-dependent Schrödinger equation. In Abdulle et al. [ADK⁺15], pages 203–211. ISBN 3-319-10704-6 (paperback), 3-319-10705-4 (e-book). ISSN 1439-7358 (print), 2197-7100 (electronic). LCCN QA76.9.M35 .E976 2015. URL http://link.springer.com/chapter/10.1007/978-3-319-10705-9_20/.

Zeiser:2002:CCF

- [ZFB02] Th. Zeiser, H. Freund, and J. Bernsdorf. CFD calculations of flow, dispersion and chemical reactions in fixed bed tubular reactors using the lattice Boltzmann method. In Breuer et al. [BDZ02], pages 53–62. CODEN LNCSA6. ISBN 3-540-42946-8 (print), 3-642-55919-0 (e-book). ISSN 1439-7358 (print), 2197-7100 (electronic). LCCN Q183.9 .I58 2001. URL http://link.springer.com/content/pdf/10.1007/978-3-642-55919-8_6.

Zhang:2000:NES

- [Zha00] Zhimin Zhang. Nonconforming, enhanced strain, and mixed finite element methods- a unified approach. In Cockburn et al. [CKS00b], pages 465–470. CODEN LNCSA6. ISBN 3-540-66787-3, 3-642-64098-2 (print), 3-642-59721-1 (e-book). ISSN 1439-7358 (print), 2197-7100 (electronic). LCCN TA347.F5 D57 2000. URL http://link.springer.com/chapter/10.1007/978-3-642-59721-3_49/. Papers from the first international symposium on DGM Newport, Rhode Island, USA, May 24–26, 1999.

Ziegler:2005:EAN

- [Zie05] U. Ziegler. On the efficiency of AMR in NIRVANA3. In Plewa et al. [PLW05], pages 391–401. CODEN LNCSA6. ISBN 3-540-21147-0 (print), 3-540-27039-6 (e-book). ISSN 1439-7358 (print), 2197-7100 (electronic). LCCN QA377 .C46 2003. URL http://link.springer.com/content/pdf/10.1007/3-540-27039-6_29.

Zhang:2002:SMS

- [ZLL02] Lucy T. Zhang, Wing K. Liu, and Shao F. Li. Survey of multi-scale meshfree particle methods. In Griebel and Schweitzer [GS02b], pages 441–457. CODEN LNCSA6. ISBN 3-540-43891-2 (print), 3-642-56103-9 (e-book). ISSN 1439-7358 (print), 2197-7100 (electronic). LCCN QA377 .M45 2003. URL http://link.springer.com/content/pdf/10.1007/978-3-642-56103-0_30. Proceedings of a workshop on Meshfree Methods for Partial Differential Equations, Institut für Angewandte Mathematik, Rheinische Friedrich-Wilhelms Universität Bonn, September 11–14, 2001.

Zhang:2002:IQM

- [ZLY02] Yingkai Zhang, Haiyan Liu, and Weitao Yang. Ab initio QM/MM and free energy calculations of enzyme reactions. In Schlick and Gan [SG02], pages 333–355. CODEN LNCSA6. ISBN 3-540-43756-8 (print), 3-642-56080-6 (e-book). ISSN 1439-7358 (print), 2197-7100 (electronic). LCCN QP517.M3 A384 2000. URL http://link.springer.com/content/pdf/10.1007/978-3-642-56080-4_14.

Zou:2011:NOH

- [Zou11] Qingsong Zou. A near-optimal hierarchical estimate based adaptive finite element method for obstacle problems. In Huang et al. [HKWX11], pages 317–324. CODEN LNCSA6. ISBN 3-642-11303-6 (print), 3-642-11304-4 (e-book). ISSN 1439-7358 (print), 2197-7100 (electronic). LCCN QA402.2 .I58 2011. URL http://link.springer.com/content/pdf/10.1007/978-3-642-11304-8_36. Papers presented at the 19th International Conference on Domain Decomposition, DD19, hosted by the School of Mathematics and Computational Science of the Xiangtan University and the Hunan Key Laboratory for Computation and Simulation in Science and Engineering and held in Zhanjiajie, China, August 17–22, 2009.

Zimmerli:2004:DCD

- [ZPK04] Urs Zimmerli, Michele Parrinello, and Petros Koumoutsakos. Dispersion corrected density functionals applied to the water naphthalene cluster. In Attinger and Koumoutsakos [AK04], pages 205–214. CODEN LNCSA6. ISBN 3-540-21180-2 (print), 3-642-18756-0 (e-book). ISSN 1439-7358 (print), 2197-7100 (electronic). LCCN TA342 .M85

2004. URL http://link.springer.com/content/pdf/10.1007/978-3-642-18756-8_15. Proceedings of a Summer Program in Multi-Scale Modelling and Simulation held in Lugano, Switzerland, between August 4th and 30th, 2003.

Zdunek:2011:ACP

- [ZR11] Adam Zdunek and Waldemar Rachowicz. *hp*-adaptive CEM in practical applications. In Hesthaven and Rønquist [HR11], pages 339–346. CODEN LNCSA6. ISBN 3-642-15336-4 (print), 3-642-15337-2 (e-book). ISSN 1439-7358 (print), 2197-7100 (electronic). LCCN ???? URL http://link.springer.com/content/pdf/10.1007/978-3-642-15337-2_31.

Zaitsev:2009:NST

- [ZS09] Dmitri K. Zaitsev and Nikolai A. Schur. Numerical simulation of 3D turbulent flows around bodies subjected to vortex-induced and forced vibration. In Tuncer et al. [TGEM09], pages 347–354. CODEN LNCSA6. ISBN 3-540-92743-3 (print), 3-540-92744-1 (e-book). ISSN 1439-7358 (print), 2197-7100 (electronic). LCCN ???? URL http://link.springer.com/content/pdf/10.1007/978-3-540-92744-0_43. Parallel CFD 2007 was held in Antalya, Turkey, from May 21 to 24, 2007.

Zhou:2015:MFD

- [ZSS⁺15] Dong Zhou, Benjamin Seibold, David Shirokoff, Prince Chidyagwai, and Rodolfo Ruben Rosales. Meshfree finite differences for vector Poisson and pressure Poisson equations with electric boundary conditions. In Griebel and Schweitzer [GS14], pages 223–246. ISBN 3-319-06898-9. LCCN QA71 .G75 2015; QA377. URL http://link.springer.com/chapter/10.1007/978-3-319-06898-5_12/.

Zahn:2009:CBS

- [ZTJ09] Peter Zahn, Patrik Thunström, and Tomas Johnson. Complex band structures of spintronics materials. In Engquist et al. [ELR09], pages 317–320. CODEN LNCSA6. ISBN 3-540-88856-X (paperback), 3-540-88857-8 (e-book). ISSN 1439-7358 (print), 2197-7100 (electronic). LCCN Q183.9 .M86 2009. URL http://link.springer.com/content/pdf/10.1007/978-3-540-88857-4_12. Summer School on Multiscale Modeling and Simulation in Science, Bosön, Lidingö outside Stockholm, Sweden, June 2007.

Zumbusch:2000:PAR

- [Zum00a] Gerhard Zumbusch. Parallel adaptively refined sparse grids. In Dick et al. [DRV00], pages 285–292. CODEN LNCSA6. ISBN 3-540-67157-9 (print), 3-642-58312-1 (e-book). ISSN 1439-7358 (print), 2197-7100 (electronic). LCCN QA377 .E94 1999. URL http://link.springer.com/chapter/10.1007/978-3-642-58312-4_39/.

Zumbusch:2000:SGP

- [Zum00b] Gerhard W. Zumbusch. A sparse grid PDE solver; discretization, adaptivity, software design and parallelization. In Langtangen et al. [LBQ00], pages 133–177. CODEN LNCSA6. ISBN 3-540-66557-9 (softcover), 3-642-57172-7 (e-book). ISSN 1439-7358 (print), 2197-7100 (electronic). LCCN QA76.6 .A336 2000. URL http://link.springer.com/chapter/10.1007/978-3-642-57172-5_4/. Papers from an International Workshop on Modern Software Tools for Scientific Computing (SciTools'98), Oslo, Norway, September 14–16, 1998.

Zunino:2003:ISM

- [Zun03] Paolo Zunino. Iterative substructuring methods for advection-diffusion problems in heterogeneous media. In Bänsch [Bän03], pages 184–210. CODEN LNCSA6. ISBN 3-642-62406-5 (print), 3-642-19014-6 (e-book). ISSN 1439-7358 (print), 2197-7100 (electronic). LCCN ???? URL http://link.springer.com/content/pdf/10.1007/978-3-642-19014-8_9.

Zunino:2008:MDG

- [Zun08] Paolo Zunino. Mortar and discontinuous Galerkin methods based on weighted interior penalties. In Langer et al. [LDK⁺08], pages 321–327. CODEN LNCSA6. ISBN 3-540-75198-X (print), 3-540-75199-8 (e-book). ISSN 1439-7358 (print), 2197-7100 (electronic). LCCN QA402.2 .I55 2006. URL http://link.springer.com/content/pdf/10.1007/978-3-540-75199-1_38. 17th International Conference on Domain Decomposition Methods held at St. Wolfgang/Strobl, Austria, July 3–7, 2006.

Zunino:2009:ENP

- [Zun09] Paolo Zunino. Energy norm A-posteriori error estimates for a discontinuous Galerkin scheme applied to elliptic problems with an interface. In Hegarty et al. [HKOS09], pages 295–304.

CODEN LNCSA6. ISBN 3-642-00604-3 (print), 3-642-00605-1 (e-book). ISSN 1439-7358 (print), 2197-7100 (electronic). LCCN ??? URL http://link.springer.com/content/pdf/10.1007/978-3-642-00605-0_25.