A Bibliography of Publications about the Fast Multipole Method

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Title word cross-reference

1 [TPKP12]. $\mathbf{15K}$ [WGL+98]. 2
[GRZ04, Lab98, Liu08, ON08a, RS94, VGZ09, WYW05, WXQL08]. 3
[BDMN03b, BHR04, BHGR04, CDM98, DDL13, Dar02, GP08, GD03, JMC97, NW89, NH97, ON08b, PG94, Pta21, QCG15, Sar03, TCD17, WY05, WLL+07, WZC+17, WZC19, WCZ+20, WZC21a, WZC21b, iYNK02, YB01, ZY05]. $\$50$/\text{Mflop}$ [WSB+97].

$\mathbf{7.3}$/\text{Mflops} [KFM99]. 3 [PG96b]. $h = 0$
[DNS90]. $H^2$ [HXC21]. $K$ [MG05, CK95b].

$LU$ [MG07]. $R^N$ [CBN02]. $N$ [Aar85, Alu94, APG94, Alu96, AGPS98, AAL+01, And99, Ano94a, Ano94c, ADB94, ADBG99, Bag02, Bar86, BADP96, BAAD+97, BADG00, BAD01, BS97, BN97, BOX00, Bor86, BDS07, BME90, BEM94, DH86, Dem95, Dem96a, Dem96b, DHM03, FRE+08, FM95, FM96, FQG+92, HTG02, HJ96, IFM09, IHM05, Kat89, KFM99, KFMT00, KMT94, LKM02, Liu94, MIES90, MTES94, MT95, MD12, MG05, MMC99, Mcd97, NMH06, Oku96, PGB05, Per99, PRL03, SWW94, Sal96, Sha96, SP99, Sin92, SHG95, SHT+95, SRK+12, TMES94, TWY06, TYON12, TYNO12, Ten98, TL14, WPM+02, WS92, WS93, WN14, WSWL95, WSH+12, Xu95, Yin15, YF05, Ano94b, CK95a, CK95b, GKS94, GKS98, Gre90b, HNY+09, HN10, HS95, INS+20, KK95, Xue98]. $N \log N$
[AO10, DYP93, ADO11]. $\nu$ [SH07]. $O(\log_2 n)$
[JBL02]. $O(N)$

[BSL11, Deh02, DTG96, OFK14, Xue98].

1
\(O(N \log N)\) [BH86, FGM11, PJY95]. \(r^{-\lambda}\) [CJ05]. \(R^{-r}\) [SH07]. \(r \pm 12\) [Pan95]. \(t\) [MPZ21].

-Body
[Ano94b, CK95b, GKS94, KK95, BEM94, GKS98, Gre90b, HNY+09, HN10, HS95, IN5+20, Xue98, AGPS98, AAL+01, And99, ADB94, Bag02, BADG00, BS97, BN97, BOX00, FM96, HTG02, HJ96, KFM99, KFMT00, SWW94, SHG95, SHT+95, Ten98, WPM+02, WS93, Xu95, Yin15, YF05, Aar85, Alu94, APG94, Aro94a, Ano94c, ADBGP99, Bar86, BADP96, BAAD+97, BAD01, BDS07, BME90, BME93, CK95a, DH86, Dem95, Dem96a, Dem96b, DHM03, FRE+08, FM95, FOG+92, IFM09, IM05, Kat89, KMT94, LKM02, Liu94, MIEM90, MTE94, MT95, MD, MG05, MME99, NMH06, Ouk96, PGB05, Per99, PRL03, Sal96, Sha06, SP99, Sin92, SRK+12, TME94, TWY06, TYO12, TL14, WS92, WN14, WSL95, WSH+12].

-1D [NH97, Pta21, WZC21b, BDMN03b, CD98, DDL13, Dar02, GROZ04, GD03, JMC97, NW89, Sar03, TPKP12, WYW05, WZC19, WZC21a, YB01, ZY05].

-2D [Lab98].
-3D [MG05].

-Nearest-Neighbors [CK95b].

-Accurate [SRP06, AHLP93, Dac06, EG09a, EG13, HHKP09, HLM19, ZGD+16].

-Accelerator [CKE08, HZH+18, LCZ07, SWW99, VCM00, BK96, KCF+05, SGD+04].

-Accelerating [GHRW98, MG09, WC94a].

-Acceleration [CKE08, HZH+18, LCZ07, SWW99, VCM00, BK96, KCF+05, SGD+04].

-accelerator [ATMK03, MD12].

-Achieves [WGL+98].

-Achieving [SSF96].

ACM [IEE02, Kar95].

ACM/IEEE
acoustic

acoustic-structure

adaption

adaption

Adaptive

Adapted

adaptation

Addition

address

Advanced

Advances

algebra

Algebraic

Algorithm

ALiCE

Algorithmic

ALGOL

Algorithms

Almost

Alpha

Alpha/Linux

Alternative

AMBER

AMBERCUBE

AMS

Analyse

Analyzing

analyzing

Annual

anomalies

Antennas

anterpolation

Application

Approach

approximate
approximating [LX17]. Approximation [ADO11, LSCM96, AO10, GP08, ST06].
approximations [CK20, DC07, HW11, Lem04, RŚZ09]. Apr [Dem95, Dem96a, Dem96b]. April [PA02, Wel91]. Aqueous [GP93].
Arbitrary [LS93, WZC+17, GSC01, GL96, KS98b, LM02, Tau03b, YRGS13].
Architectural [DRS96]. Architecture [Lea92, NMH06, Sin92, TYON12, TYNO12].
Architectures [MPZ21, SHG95, HGD11, INS+20, LCL+12, MMC99].
array [CKS91]. article [Dac10]. ASCI [WSB+97]. aspects [CHJN03]. assemblies [CPP93, LDB96].
Astrophysical [Ano94a, KFM99, MTES94, MT95, MFKN03, WS92, HN10, TME94].
Astrophysics [FQG+92, HNY+09]. asymptotic [BK96, Dar00a]. atom [DKG92c, FRE+08]. Atomic [AC94, DKG92a, Kon93]. Atoms [McD97, Pie93].
Australian [Ano92]. Automatic [RGK12]. Autotuning [HEGH14].
Baltimore [IEE96a, IEE02]. Banff [ERT12].
Balancing [PD89].
Barnes [AAD+01, An94b, BJW96, BGLM05, GKS94, GKS98, INS+20, MPZ21, SHT+95, WSH+12, ZBS11, ZBS15]. barrier [WHG+06b]. barycentric [WV85].
Based [AAB+17, CD13, GSS98a, GSS00, MP96, YB01, AO10, BLA95, BN98, BHG905, FMI+93, GROZ04, GKD09, GPO8, HHPK09, HLL08, HLT+18, LM02, LDB96, Liu08, NN12, Sud04, Tak14, WL96, WCZ+20, WVK21, ZHPS11, ZGD+16]. bases [FBHJ04, TW03]. basis [BLA05, BL97, BN98, BCR01, Buh03, CBN02, GH08, GDDC08, GD07a, LCZ07, Yin06].
BEM [SGD+04]. Beach [IEE95]. Behaviour [ON90a]. Beltrami [SHMC97, SM97, SMC97].
BEM-FEM [MB05]. Beowulf [WWF02].
Best [Cip00]. Between [AAB+17, Pie93, CDM98, RŚZ09]. beyond [ZB14].
Bianisotropic [SHMC97, SHM98].
Biomolecular [SRPD06, YBK+11, GCH+18, KP08, LCM07, LCHM10, LCHM13, SKT93].
block-diagonal [CG04]. blocking [TSIM16]. Blue [FRE+08]. BO12 [LB91].
board [ATMK03]. Bodies [BT95]. Body [AGPS98, AAL+01, And99, An94b, ADB94, Bag02, BAD00, BS97, BN97, BOX00, CK95b, FM96, GKS94, HP95, HTGQ92, HJ96, KFM99, KFMT00, K95, Pie93, SWW94, SHG95, SHT+95, Ten98, WPM+02, WZC+17, WS93, Xu95, Yin15, YF05, Aar85, Ah94, AP94, Alu96, An94a, An94c, ADBGP99, App85, Bar86, BAD96, BAAD+97, BAD01, BDS07, B690, B943, B943, BEND94, CK95a, DH96, Dem95, Dem96a, Dem96d, DHM93, EIM+92, EFT+93, FRE+08, FM95, FQG+92, GKS98, Gre90b, HFKM98, HNY+09, HN10, HS95, IFM90, INS+20, IHM05, Kat89, KMT94, LKM02, Li94, MIES90, MTS94, MTF95, MD12, MG05, MCM99, NMO6, OME+92, Oku96, PGB05, Per99, PG96a, PRL93,
Sal96, Sha06, SP99, Sin92, SRK$^{+12}$, SCM$^{+90}$, TMES94, TWYC06, TYON12, TYNO12, TL14, WS92, WN14, WSWL95].

body [WSH$^{+12}$, Xue98, ZBG15]. Bologna [Ano95a]. Boltzmann [BH03, LCHM10, LCHM13, WZC21b]. Book [Gav11]. Born [ADO11, HC10]. Boston [K$^{+96}$]. both [HNY$^{+09}$]. Boulevard [ACM99]. boundaries [Mil08]. Boundary [BH03, BR93, Bre04, LJ96b, LJ96a, MBA97, OSW06b, SS07, WZC$^{+17}$, WSW$^{+95}$, AP03, Atk97, BSL09, Bes00, BWS$^{+95}$, BHR04, BHGR04, Car06, Car07, CWGH97, CKW08, DMC20, Gas97, GBMN06, Gav11, GOS99, GP08, GD09, GODZ10, GAD13, Ham11, KMC09, KCF$^{+05}$, LOSZ07a, LOSZ07b, LCFQ18, LHL08, Lin95, Liu08, Liu09, LC94, Mil08, OSW05, OSW06a, OI08, OKS09, ON08a, ON09a, ON09b, PN95, QCG15, RS20, R$^{+99}$, SGG$^{+04}$, Sat10, SKT93, Sin95, Tak14, TCD17, TCD20, TW03, Taut04, VGB09, WY05, WY07b, WY07a, WSWL95, XJM08, Yin09, iYNK02, YAO18, YAO20, YSM05, BR93].

Boundary-Integral [LJ96b].

boundary-value [Lin95]. Bounds [GSS98a, GSS00, WK18]. breast [ES04]. Breit [JdR$^{+18}$]. Bridging [AAB$^{+17}$]. Broadband [WJYO06, GD09]. Brownian [BGLM05, BLB06, GROZ04, PSPS95, PSS95]. Calculating [BFO99, DM90, LCHM10, LCHM13, SKT94].

Calculation [Deh02, HA17, NT96, BHR96, BH03, FGM11, LDB96, OLLL03, RCWY07]. Calculations [BGGT90, Ber95, CDGS03, CDGS05, KSS10, SK11, PN94, AILS$^{+21}$, CSA95, CK20, KK16, KS98a, LCM07, PA14, SKT93, WH96a, WJGH96b, WH96b].

Calderon [NN12]. California [ACM97, Rod98, Ful97, IEE95, PA02]. Canada [IEE97, HBM10]. Cancer [ES04]. Canonical [LC93, KM00]. Capacitance [YB01, JC04, NW89]. Capacitive [GSS98a, GSS00, WK18]. Cardinal [Boy92b]. Carlo [ESRS01].

Carrier [SB98]. Cartesian [CSA95, CS82, HF92, HLL$^{+18}$, Le97, SH07]. Case [BGLM05, GROZ04, PSPS95, PSS95]. Cauchy [CL12, LCD14]. CE2014 [MBS15]. cells [CC13, CWD08, DKG92a, DKG92c, GDK89, KS98b, KN95, LM02, FL13].

Center [ACM99, Hol12, IEE90, Kar95, Pan95, MK00]. Central [EIM$^{+92}$]. Century [Cip00]. challenge [Bha97]. Challenge [AC94, CC13, GY08, Kan15].


case-grained [PA14]. Coarse-graining [GB11]. coated [ZCG00]. COBE [ZQSW94]. Code [ADB94, Bag02, BH89, Bar90, BADG00, CDM98, CWA14, IFM09, SLCL98a, SLCL98b, BAP96, BAAD$^{+97}$, BAD01, BCAD06, DMC20, Dub96, GY08, GDK98, JdR$^{+18}$, JKCG908, JP98, LWL$^{+02}$, PD89, PG94, Spr05, Wam99, WSH$^{+12}$].

Codes [SWW94, WSW$^{+95}$, NMH06, Pud16].
WSWL95. Coefficients [GD03, Beb06, FST05, KS11]. Cold [ZQSW94]. collective [BSvdG+94].

Collision [BT95, WN14, JdR+18]. collisional [TYON12]. collisionless [TYNO12]. Combined [JMBC98, AiI+21, KM00]. Combining [CDGS03, CDGS05, CWD08, DDL13, DM12, FLZB97a, FLZB97b, GDDC08, PRT92, ZB95]. Comment [KAN96, WJGHG96a]. Comments [PG96b]. Communication [HP95, YTK14, BSvdG+94, IYK16, KP08, SS89, TPKP12]. Communications [KP05a, AiI+21]. Companion [HDG+15].

Comparison [BN97, CDM98, EG09a, RŠZ09, WPM+02, Ess95, SKPP95]. competitive [Ano92]. Complement [MG11]. Complex [CSMxx, MGM95, MBS15, SLC96, SLC97, SY03, AC17, BGGC06, CC10, CC12, NW89, RS20, REI99, TW03, ZB95]. complexes [KSS10]. Complexity [JBL02, Pan92, YTK14, Dar00a].

component [CKB11, JKCGJ08]. composite [EG13, GM94, Pta21]. Composites [SMC97, GH98, WY05, WY07a]. Comprehensive [AC94]. compressible [ECL02]. Compression [YGRS01, XTH09].

Comput [BEM94]. Computation [Gue97, GD03, GD05, GODZ10, McD97, MSV92, Pie93, YRGS13, ATMK03, AO10, FOCH96, TXL19]. Computational [Bat03, BGWP00, JBL02, Kat89, Les96, Mat95, MBS15, TDBEE11, Ano95b, Ano96, Ano97a, OMH+94, SM05].

Computationally [KM00]. Computations [ERT12, Pan92, KAN95, KAN96, OKS09, SY03, VOD08, WJGHG96a, YF98].

Computer [AT87, Ano94a, BGGT90, BP88, CKE08, FM96, HE88, IEE92a, KFMT00, MTES94, MFKN03, Bar86, EIM+92, EFT+93, FMI+93, FM95, HFKM98, HGSS90, KMT94, MIES90, MT95, MHI07, OMH+94, OYK+14, OME+92, SCM+90, TMES94].

Computers [FHM99, LCP93, MT98, DK93, LBI+97, NKV94, OCK+03]. Computing [ACM97, B+95, BGI+99, HTA+97, Hol12, IEE94b, IEE96b, IEE98, LCK11, Mat95, PA02, SMHC97, WRF02, WSW+95, GL03, CPP93, IYK16, MHI07, MCM99, PRT92, Rod89, SH07, Xue98]. concise [PJY96]. condition [YAO18, YAO20]. conditions [CWHG97, SKT93, Sin95].

Conducting [GA96a, HAS02]. conduction [RO04]. Conference [ACM96, ACM97, Ano92, Ano95a, B+95, BR93, HTA+97, Hol12, IEE94b, IEE96c, IEE98, IEE02, Kar95, KK88, LCK11, MC92, MBA97, Rod89, Wel91]. conformal [OR89]. Congress [BGPW00]. congressi [Ano95a]. conjunction [CCKL09]. connected [GGM93]. Connection [BME90, WS91, ZJ91]. conquer [CG04].


Correlations [ZQSW94]. Cosmological [Bag02, BVH88, IFM09, YF05, SPR05].

Coulomb [ADG96, BFO99, CHF89, DNS90, DKG92a, DKG92b, DKG92c, DTG96]. GGM01, GH02, HJJZ09, HLL+18, KS98a,
disciplinary [WSH+12]. discontinuity [RSBS19]. discretization [BDMN03a, BDMN03b, Dar02, GBMN06].
discretizations [Bebo6]. Discretized [VTG91].
displacements [RSBS19]. distorted [HC10].
Distributed [AC94, IEE96b, MB16, SRPD06, YB01, BCOY93, DK03, GB11, HGD11, KP05b, LBC91, LMCP92, MMC99, MRH14].
DNA [FOCB96]. domain [BCOY93, BCOY94, CWD08, GP08, LM02, Liu08, LCZ07, Mil08, OSW06b, OFH08, RŠ09, VW02]. domains [BHR04, GGM93, GK04, RS20]. Don’t [Bar90]. doubly [GK04]. doubly-periodic [GK04]. DR [MH07]. DREAM [OMH+94].
DREAM-1A [OMH+94]. driven [BSL11, LY14]. dual [CCKL09, LCQF18, Liu08, WVK21]. dual-level [LCQF18]. Dynamic [HEGH14, BAAD+97, CK95a, dynamic [LCQF18].
Dynamical [SWW94, WSLW95]. Dynamics [BGGT90, BHGS90, BP88, CDCD97, HM86, JBL02, LCP93, MPPA96, NT96, OKF14, Sch94, TDBEE11, WLMP99, ATMK03, AliS+21, BSL11, BAL91, BSS97, BCL+92, BHE+94, BHER94, BCOY93, BCOY94, BP93, CcHMS94, DK93, EGHT97, FMI+93, GDE89, GKI10, HGS90, Ich02, KM00, KP05a, LM02, BLC91, LBI+97, LMCP92, LWM+02, LRJ+99, NVK94, NT94, OHM+94, OUK+14, OP07, PGB05, SF18, SKE89, VGZB09, VCM00, WS91, Win95, ZB95].
Dynamo [BSL11].
Economization [LRW95]. Editor [GW98].
Editors [Cip00, MBS+00, DS00]. EEG [KCF+05]. effects [AB95, BPK85].
Efficiency [HZH+18, HLL+18, KK16].
Efficient [BS97, DH04a, EG08, HS08, HYS21, NT96, RS06, SKT93, Ami00, App85, Bar86, BHR04, CL91, CCZ97, CWD08, EG09b, GR88b, KM00, KKB+21, Krost, KS98a, LDB96, OF08, PN95, RS20, SIM16, WL96, WHG94, YF98, ZGD+16].
eigendecomposition [CG04]. eigensolver [ZGD+16]. Eighth [HTA+97]. elastic [CCZ97, TC99]. elasticity [GKM96].
elastodynamic [CB14]. elastoplastic [WY07b]. Elastostatic [WZC+17, GG16, GH98, HLL08, Liu08, MB05, iYNK02, ZY05].
elasticities [OSW05, PN95]. Electric [Gus98, PNB94, ZZ93, ABD04, CS82, HF92, WFC08]. Electrically [HAS02, GDC08].
Electrode [HB93]. Electrode-Electrolyte [HB93]. Electrolyte [WZC21b]. electrolyte-dielectric [WZC21b].
Electromagnetic [CSMCxx, EMRV92, GA96a, GA96b, SLC97, BGGC06, Car09, ESRS01, ES04, GH08, HYS21, MG07, MD98].
emotions [Ano95b, Ano96, Ano97a, CJL+97, Erg11, Gib08, LGZ04, OMC08].
Electromagnetism [SRPD06, BWS+95, FGM11, LCHM10, LCHM13, YBK+11]. Element [BR93, LJ96b, Lj96a, MBA97, WZC+17, WYS+95, BSL09, Bebo6, BWS+95, BH03, BHR04, BHGR04, CWK08, DMC20, Gav11, GP08, GD09, GODZ10, Ham11, KMC09, KCF+05, LS05, LOSZ07a, LOSZ07b].
LCQF18, LHL08, Liu08, Liu09, OSW05, OSW06b, Ofo8, OKS09, PN95, SGG+04, Sat10, SS07, TCD17, TCD20, VW02, VCM00, WY05, WY07b, WY07a, WSWL95, XJM08, YSM05]. Element-Boundary [LJ96a, SGG+04].

Elements [BR93, Bre04, FST05, GAD13, Pta21, Ros06].

Elizabeth [IEE97].

Elliptic [A+97, Beb06, FST05, LC14].

Elliptical [Ros06].

Elongation [KLM+09].

Embedded [RS20, SHM98].

EMC [HU97].

Employing [RKRRL21].

Energetic [BPK85].

Energies [DTG96, FGM11].

Energy [HZH+18, BSSF96a, BSSF96b, CC13, CPP93, FOCB96]. energy-conserving [CC13].

Engineering [MBS15, SM05].

Ensemble [LCP93].

Entire [Sar03]. Equation [CD13, GHRW98, GD03, MG11, Nil04, SC95, Sato95a, WZC19, AP03, ABD04, BH03, CHL06, CCG+06a, CCG+06b, CC10, CC12, CRW93, DDL13, Dar02, EG09a, GGM93, GKM96, GR97, GK04, GD06, GD09, GAD13, Kro99, LHL08, LC94, MCBB07, MMNB06, NN12, OLL04, ON08a, ON09a, QCG15, RS97, Rok98, Sta95b, Tak14, WLL+07, WFC08, WZC21a, WZC21b, iYNK02, ZC00, ZKL+07].

Equations [DY98, AHLP93, AD05, Atk97, BDMM03a, BDMM03b, Car06, Car07, CCZ97, DH04b, Fuj98, Gas97, GBM06, GO890, GD07b, Hav03, LSL04, LC14, LC93, NT09, ON08b, ON09a, ON09b, RSZ09, RO04, Rok85, Rok90, RS94, Tau04, TG08, VW02, WLL+07, WZC+20, Yin09, XZ19, ZC00].

equispaced [DR95]. equivalent [RKRRRL21]. equivalent/check [RKRRRL21]. Erratum [BEM94, FLZB97a, SL97a]. Error [BH89, CC04, CC05, GKD09, GSS98a, GSS00, KSC99, OC05, PSSPS95, PSS95, SP97, Dac09, Dac10, OC03, Pel98, WK18, Dar00a].

error-controlled [Dac09, Dac10].

Error-estimates [PSS95]. errors [AP00].
CKB11, Dac06, Dar97, DY98, Dem95, Dem96a, Dem96b, DD95, DR95, DGR96, EB94, EB96, EMR92, ESM98, EG13, FOCB06, Gas97, Gav11, GSC01, GP93, Gre94, GHRW98, GW98, Gue97, GD06, GD07a, GD08, GAD97, GA96a, GA96b, GS98b, HOST95, HAS02, HC10, HA17, HEHG14, JMC97, JMBC98, JBMC98, KLZ06, KM99, KCF05, LCD14, LHL08, Liu09, LX17, LC93, LSCM96, LC96b, LW95, LRW95, MI95, MI96, MBS00, Mak04, MG11, MB16, MB05, MG95, McK96, Fast [MPPA96, MMNB06, NW89, NT96, Ni04, NPR93, Of07, OKS09, PS04, PD15, Pri94, QC15, RR05, RW94, RS94, SHTW94, Sch94, SG97, SHMC97, SMC97, SHTW95, SC95, SL96, LSC96, LSC97, Sta95a, SP01, STZ14, TXL19, WC94a, WC94b, WLM99, WY05, WY07b, WXQ08, WZC97, WC91, WCZ21a, WCZ21b, WSW95, WXY06, XJMY8, YR99, Yin09, Yin15, YNS09, YAO20, YB01, ZY05, AHR93, AR91, AGR88a, AGR88b, AP99, AP00, AP03, Ami00, ATM93, AY02, AI93, ATR12, AC17, BDM03a, BDM03b, BSL09, BG07, BS99, BWS95, BV96a, BSS97, BCM92, BP03, BSS96a, BSS96b, BK96, CDJ07, CC04, CC05, Car09, CRR88, CWW97, CDF10, CKL09, CGR99, CHL06, CCG96b, CRG01, CPP93, CWD08, CRW93, CB20, CFR08, CB09, Da99, Da00, DMC20, Da02, DM07]. Fast [DM12, Da00a, Da00b, DH04a, DH04b, DC07, DRS96, ESR01, ES04, Eng11, EG08, EG09a, EG09b, Erg11, EG01, EMM91, FLZ97a, FLZ97b, FGP05, FD09, Fuj98, GDC08, GBMN06, GF06b, GF06a, GIS98, GY08, GR02, GG16, GROZ04, GDK09, GE13, GR87, GR88b, GG89, GG90, GS91, GH02, GCH98, GD05, GD09, GODZ10, Ham11, HKPK99, HS08, Hav03, HLL08, HYS21, HW10, HW11, HU97, HR98, HGD11, HJZ90, HLL18, IYK16, Kan15, KM00, KSS10, KS99, KKB21, Kon93, KLM09, KS98a, KS98b, KS04, KP05a, KP05b, KP08, KAN95, KAN96, Lab98, LOSZ07, LCL12, LBGS16, LB91, LB92a, LB92b, LB98, LZ04, LCQF18, LGG13, LC14, Liu08, LY14, LCZ07, LCM07, LCHM10, LCHM13, LWM02, Mak99, MG07, MG09, MR07, MRH14, MS10, NT99, NN12, NH97]. Fast [OR89, OSW05, OSW06a, Of08, OCK03, OY14, OMC08, OLL03, OLL04, OFH08, OP07, ON09a, PYY96, PPS94, PPS95, PPS96, PA14, Pta21, Ral96, RRR03, RS20, RS90, RRRL21, RS619, RTZ96, RO04, RTA8, RS97, RS06, RCWY07, SGG04, Sar03, Sat10, SL97a, SL97b, ST06, SWW99, SM97, SHM98, SH07, ST94, Sin95, SKPP95, SP97, Sta95b, SB96, ST02, SK04, Sud04, Syl03, Tak14, TM16, TCD17, TCD20, Tan03b, Tan04, TCD08, TC09, TG08, TD09, VD08, WK18, WYYY06, WL96, WY05, WY07a, WLY+07, WFC08, WSW20, WH94, WJHG94a, WH96a, WJHG96b, WH966b, WVB21, WS95, XWT09, YRGS12, hYtWbW08, YR98, YB97, YBZL03, YBZ04, Ym06, YB9+11, YBNY12, YB12, YBNY13, iYNK02, YAO18, YSM05, ZCG00, ZTH07, ZHP50, ZHP50, ZB14, ZC19, ZCL98, ZKL07, ZGD16]. Fast [ZB95, AAB17, Boy92b, CD13, CB14, CKE08, CFR10, DL13, EM19, FL13, GR97, GS98a, Lea92, LCF93, RGK12, SL91, SLCL98a, SLCL98b, YTK14]. Fast-multipole [Dar97, EG01, Take14, ZCL98]. FCCM [PA02]. FE [SGD04]. February [B95]. FFEM [MB05]. ferrofluids [HHM19]. FFT [TPK12]. FFTM [HLL08, HLL08, OLL04]. fiber [WY07a]. fiber-reinforced [WY07a]. Field [LSCM96, PA02, ADM04, BHR04, BHR05, HW11, KKB+21, MD98, OOS90, WFC08, Xue98]. Field-Programmable [PA02]. Fields [CK95b, Gre87, SHMC97, SMC97, SB98, YR99, CK95a, CG97, DC07, ESM98, GG16,
Gre88, GR88a, GM94, GH98, HR98, OLLL03, Pel98, RKRLR21, ST06, SM97, VOD08.

Fifth [Ano92, IEE96b, MC92, IEE98].

filtering [BP03, YR98]. fine [Bar86]. fine-grain [Bar86]. Finite [FST05, LJ96b, LJ96a, Beh06, Ich02, LS05, LCZ07, SGG+04, Sat10, VW02].


fitting [BS19, CK20, LBGS16, MSS20, TWYC06]. Flexibly [YS18]. floating [LKM02]. floating-point [LKM02]. Flow [Pri94, ECL02, Gre90a, GKM96, GK04, NMDK99, Tau03a]. Flows [GCC+99, WSW+95, BCH93, Kro99, Kro01, Kro02].

Fluid [SWW94, TDBEE11, Bat03, OMH+94, VGZ90, WSWL95]. fluids [Ang17, BPK85, LRJ+99, ZB14]. FLY [BAD01, BCAD06]. FM [BN07]. FM-BEM [BN07]. FMA [LO96b]. FMBEM [CWK08]. FMD [LWM+02]. FMM [CCG+06a, EMRV92, HNO06, HJZ09, HZH+18, MRH14, ON08a, ON08b, ON09b, PG96b, SGD+04, SB08, YS18, ZHPS10].


Forces [BP88, CDM98, NT96, Pie93, WZC+17, BH03, CKS91, DM90, LDB96]. Forest [MPZ21]. Form [CJ05, AP99, BCP08, SH07]. Formation [FM96, FM95, SWJ+05]. forms [KSC99, Rah96, Rok98]. Formula [CL12].

formulæ [NN12]. Formulation [AAL+01, JBL02, CB14, CWK08, CCLKL9, CFR08, CFR10, DM07, GD07b, Liu08, OSW06a, DM12]. Formulations [Ane04b, GKS94, MG11, EG09a, GKS98].

Fortran [GDK89]. Foundations [IEE92a]. four [BCR01]. four-dimensional [BCR01].

Fourier [Boy92b, EMT99, Boy92a, CD13, DR95, EB94, EB96, HLL08, HW01, LHL08, OLLL03, OLL04, Sar03, ZHPS11].

Fourier-Based [CD13]. Fourier-series-based [ZHPS11]. FPGAs [LKM02]. Fractal [PD15]. Fractional [WHR96a]. fracture [XWY+08, ZBG15].

fracturing [RSBS19]. framework [TPK12]. Francisco [B+95]. Fredholm [AHLP93]. free [BSL11, BKM09, Car06].

Frequencies [GHRW98, DH04b, ZC00]. Frequency [Nil04, BK96, DH04a, KMC09, QCG15, TSIM16, ZC00]. frontiers [And08].

Fully [VTC91, RSBS19]. function [BLA05, BKM09, GDDC08, GD07a, GODZ10, LX17].

Functional [DRS96, BS19, KAN95, KAN96, LBGS16, MSS20, WJGH96a, WJGH96b]. Functions [Boy92b, BL97, BN98, BCR01, Buh03, CBN02, KMC09, LCZ07, Tau03b, Yin06].

Future [EMT99].

GADGET [Spr05]. GADGET-2 [Spr05]. galactic [MFK00]. galaxies [SWJ+05].

Galaxy [FM96, FM95]. Galerkin [AHLP93, AP03, DM20, HKS05, OSW05, XWT09].

Gap [AAB+17]. Gauss [GS98a, GS91].

Gaussian [BSSF96a, BSSF96b, KS98a, Le 97, Ros06, Sal96]. Gegenbauer [CC05].

General [LCD14, McD97, BS11, FG96]. Generalization [Boy92b]. Generalized [ADO11, CBN02, GR02, KAN95, KAN96, ST06, SK04, WJGH96a, YR98].

generating [CB20]. Generation [HL15, Sal96]. geometric [CDF10].

Geometries [MG95, AC17, KS98b, NW89]. Geometry [SC94, TW03]. Gflops [MHI07, WGL+98].

giant [RTZ+96]. gigaflaps [WSB+97].

GMRES [BGGC06]. Good [Ten98].

GOTPM [DKPH04]. GPU [GE13, Ham11, KL15, HEGH14, Kan15, MPZ21, WN14, WK21].

GPU-accelerated [Ham11, WK21].
hyper-systolic [DHM03]. Hypercube [BME93, BEM94, BME90, DK93]. hypercubes [SS89].

I/O [Mak93]. ICCAM [BGPW00]. ICCAM-98 [BGPW00]. ICS [KK88].

IEEE [IEE96b, IEE02, PA02, ACM97, Kar95]. Igniting [ACM03]. II [CC05, PGB05, WSB+97]. Illinois [SLCL98a, SLCL98b]. imaging [DC07].


Improvement [Ich02]. Improving [CDD97, GSS98a, GSS00, MPZ21, KK16]. incident [CCKL09]. inclusion [HNO06].

Incomplete [MG07]. Independent [Ahu94, ACG94, AGPS98, Ano94c, SB98, MR07, YS18, YBZL03, YBZ04, Yin06, ZHPS11].

India [IEE98]. indirect [GAD13, Ham11, LHL08]. Induction [Pie93]. industrial [And08, GLS06, Syl03].

Inexact [LOSZ07a, LOSZ07b]. inextensible [VGZB09]. infinite [KS04, Mi08]. Inhomogeneous [SHMC97, SMC97, CL91, SM97, SHM98].

Innovation [ACM03]. Insight [IEE02]. Institute [BR93, HM86]. instruction [TYON12, TYNO12]. Integral [CL12, GKM96, GK04, Kro99, LJ96b, LJ96a, MG11, SC95, ZC00, AP03, AB04, AD05, Atk97, BDMN03a, BDMN03b, Bes00, Car06, Car07, CCZ97, CCKL09, DM07, EG09a, Fui98, Gas97, GMBN06, GOS99, LZL04, LC93, LC94, NT09, OSW06a, ON09a, RŠZ09, RO04, Rok85, Rok90, Ros06, Tak14, TW03, Tau04, VGZB09, WLL+07, WFC08, Yin09, iYNK02, ZX19, ZGD+16].

Integral-Equation [MG11, EG09a]. Integrals [BL05, Gus98, ZZ93, BL98].

Integration [DGR96, Oku96, WZC+17, NMH06]. integrations [CDF10]. Integrator [Per99, SP99, KM00, KMT94]. integrators [FLZB97a, FLZB97b, Sha06]. Intel [FQG+92]. Interacting [BP88, BP93]. interaction [GF06b, GF06a, HLL+18, Kan15, YAO18, ZD05]. Interactions [BFO99, DD95, GGM01, LS93, ATMK03, AO10, BAL91, BPK85, CFB89, CKB11, DKG92a, DKG92b, DG92c, EGHT97, Ess95, GH02, HJZ09, NT94, PJY95, SKT93, ST94, ZHPS10]. interatomic [KCS91].

InterCom [BSvdG+94]. interconnecting [LS05, LOSZ07a, LOSZ07b, OSW06b]. Intercontinental [ZG+10]. Interfaces [HB93, Kro02]. interfacial [Kro01]. interior [Mil08]. Intermolecular [Pie93].

International [BR93, BGPW00, ERT12, Hol12, IEE94a, IEE95, IEE96a, IEE96b, IEE97, IEE98, KK88, LCK11, MBA97].

Interpolation [Boy92a, DGR96, KLZ+06, BLA05, GD07a, Sar03, Tak14, WVK21]. interpolation-based [Tak14].

Interprocessor [BSvdG+94]. Introduction [DS00, GW98]. Inverse [CDGS03, CDGS05, CPD17, Beb06, BN07, FPG05, HC10, LZL04, MG09, TCD17, TCD20]. Inverting [GGM01]. Investigations [hYWbWL08].

inviscid [Kro02]. Invited [HOST95]. involving [AB95, EG09a, Erg11, Lin95]. ion [RT+96]. ionic [BPK85, CL91, DC07].


issue [MC92]. issues
Mak93, Italy [Ano95a, MBA97]. Iteration [GD07a]. Iterative [GSS98b, AD05, FG96, GDDC08, HC10, Mil08].

J [BEM94, Dac10], Jacobi [CC04], Jose [ACM97]. Jr [ACM99], July [IEE96a, IEE96c, IEE97, RSS96]. June [HM86, IEE94a, IEE95, Mak93].

Karhunen [ST06]. Kernel
[WCA14, HXC21, CC15, MR07, YS18, YBZL03, YBZ04, Yin06, ZHPS11].

Kernel-independent [MR07, YBZL03, YBZ04, ZHPS11]. Kernels [LCD14, GR02, PSN04, ZX19].

kind [AHLP93, Tau04]. kinematics [RSZ09].

Knox [ACM99]. KNN [MPZ21]. knots [PSN04].

Knoxville [IEE94b].

Kohn [BSSF96b]. Krylov [Car07, GD07a, JH08].

KWIK [DTG96].


Laplace [GGMG93, GR97, LHL08, WZC21a]. Laplacian [GGGM01]. Large [BADG00, BVW96, BV69b, CDGS03, CDGS05, FLZB97a, FLZB97b, GF60b, GF60a, HOST05, IFM09, OKF14, SRPD06, SLC97, WLMP99, WY07a, ZQS9W4, ATR+12, BAAD+97, BWS+95, BV96a, Car90, DYP93, EG08, Erg11, EG13, GDDC08, GLS06, GK89, HHH19, JDr+18, KP08, LCFQ18, LBI+97, LCZ07, LWM+02, PN95, PG69b, TC09, WY05, WY05, WXY+08].

Large-Scale [BADG00, OKF14, SRPD06, GF60b, GF60a, ATR+12, EG08, Erg11, EG13, HHH19, LCFQ18, LCZ07, PN95, WXY+08]. Lattice [LS93, BG94, KS04, RO04]. Laugh [Bar90].

Layer [McK96, GKD09]. Layered [GA96a, GA96b, WZC19, GROZ04, WZC+20, WZC21a, WZC21b]. layers [GROZ04]. Learning [RGK12, HHKP99].

Leave [Wil00]. Legendre [AR91, Sud04].

lensing [Wam99]. Less [WN14]. LET [HL15].

Letters [MBS+94, CKB11, TYNO12]. limited [BDS07]. Line [YR99]. Linear [CPD17, Goe99, Pud16, WJGHG96b, BH03, BGGC06, KLM+09, OSW05, SSF96].


Local [RGK12, CFR08, MCBB07, RRRL21, YS18]. Locality [SHT+95]. locally [GH98].

Loève [ST06]. logarithmic [JP89]. Logical [Bor86].

Loki [WY99]. London [DKG92a].

Long [Pie93, AO10, BAL91, BPK85, Ess95].

Long-Range [Pie93, Ess95]. lossy [GSC01].

low [GHRW98, DH04a, QCG15, TSIM16, TPKP12]. low-communication [TPKP12]. low-frequency [DH04a, TSIM16]. LSS [BCAD06]. Luther [ACM99].

M [PG96b]. M2L [KKB+21, TSIM16]. machine [HHKP09, BME90, WS91, ZJ91].

Machines [PA02, BCOY93, KP05b, LBC91, Mak93].


magneto-static [VOD08]. magnetorheological [LRJ+99].

magnetostatic [BHGR05]. malignant [ES04].

Many [HP95, PG96a, Pie93, App85, EIM+92, EFT+93, HFKM98, HYS21, INS+20, OME+92, SCM+90]. Many-Body [HP95, Pie93, PG96a, App85, EIM+92, EFT+93, HFKM98, OME+92, SCM+90].

many-core [HYS21, INS+20]. map [GGM93]. MAPLE [McD97, Pie93].
Mapping [BT03, LB92a]. mappings [OR89]. March [Ano95b, Ano96, Ano97a, Ful97, HTA+97]. Martin [ACM99]. Maryland [IEE96a]. Massachusetts [K+96]. Massively [BP88, IFM09, JBL02, KP05b, LO96a, LCF93, MFKN03, LCL+12, LBI+97, MIH07, SRK+12, TME94, WSH+12]. Massively-Parallel [MFKN03, MIH07]. matched [GROZ04, GKD09]. materials [GM94, NKV94, Pta21, K+96]. Matern [CWA14]. Mathematical [BCM02, CHJN03, Dar97]. Mathematics [BGPW00, HDG+15, Ano90, RSS96, dCGQS06]. Matrices [HXC21, Pan92, CG04, Dar06, XTH09]. Matrix [HXC21, PNB94, SP01, Dar06, FG96, XWT09]. matrix-free [FG96]. matrix-vector [XWT09]. Matter [ZQSW94, FRE+08]. Maxwell [DH04b, DY98, GBMN06, CG04, Dac06, XTH09]. May [AG88, IEE94b]. MD [IEE02, DK93]. means [MG05]. mechanic [SW99]. mechanical [SGD+04, Dar97, Dar00a, Dar00b, DH04a, DH04b, DC07, DSGQS06, Dac06, Dac09, Dac10, DMC20, DYP93]. method [Dar02, DM12, Dar97, Dar00a, Dar00b, DH04a, DH04b, DC07, DR96, DKG92a, DKG92c, ERSRS01, FGM11, FOCB96, FLZB97a, FLZB97b, FDO9, Fuj98, FMI+93, GDDC08, GKS98, GG89, GG90, GH02, GP08, GCH+18, GD05, GD06, GD09, GDZ10, Ham11, HM95, Hav03, HC10, HW10, HW11, HU97, HZJ09, HLL+18, Ich02, JH08, JC04, Kan15, KM00, KSS10, KS11, KKB+21, KLM+09, KMC09, Kro01, KS98b, K+04, KP05b, Kn95, KCF+05, Lab98, LCL+12, LBG16, LG09, LGQ+13, LHL08, LC14, Lin08, Lin09, LCZ07, LCM07, LI95, M99, MB05, MR07, Mil08, MRH14, MMNB06, MSS20, NT94, NH97, OSW05, OSW06a, Of08, OKS09, OCK+03, OYK+14, OMC08, OFH+08, OP07, ON09a, PN95, PSP94, PSP95, PSS95, PG96b]. method [PA14, QCG15, ROR3, ROKR21, RSB19, RO04, RTA+08, RS06, SGG+04, SF18, Sat10, SL97a, SL97b, SM97, SH07, Sin95, SKPP95, SP97, Sta95b, SK04, Sud04, SY03, Tak14, TS16, TCD17, TCD20, Tan03b, Tan04, TXL19, TG08, VW02, VOD08, VGZB09, VCM00, WY05, WY07a, WFC08, WZC+20, WZC21a, WZC21b, WH94, WH96a, WJHG96b, WHG96b, WVK21, WSL95, XJM08, YR98, YB97, YBLZL03, YB12, YBY13, YIN02, YAO18, YAO20,
YSM05, ZT07, ZHPS10, ZHPS11, ZB14, ZKL+07, ZGD+16, ZB95, AAB+17, CD13, CKE08, CC10, CC12, CFR10, DDL13, FL13, GR97, LCP93, RGKM12, SL91, YTK14, Gav11. Method-Ecient [NT96].

Methods [Aar85, Alu94, AG88, BS97, BS93, DY98, Dem95, Dem96a, Dem96b, FQG+92, GHRW98, GW98, HEGH14, HJ96, LRW95, MBA97, SRPD06, SHG95, SHT+95, TDTEE11, VTG91, WSW+95, YF05, A+97, BLA05, BCH93, BL97, BG97, BN98, BCR01, Bes00, BDS07, CCL97, CDD08, CK00, Eng11, Gas97, GCG+99, Goe99, GE13, GKM96, GK04, GD08, HGD11, IYK16, Kro99, Kro02, KP05a, KP08, LS05, LOSZ07a, LOSZ07b, LOG12, Liu95, LX17, LY14, MC92, NN12, OSW06b, Otk06, Oku96, PJY96, PG96a, RS20, RS94, ST06, SKT94, SM05, Sin92, SB96, TD90, YGSR01, aYZ97, YNS+09, YBNY12, ZX19, MC92].


[AAB⁺17, And92, BT03, BK15, BPT⁺14, Ber95, BVW96, BV96b, BS00, BL05, BFO99, Boy92b, CDM98, CDGS03, CDGS05, CL12, CD13, CSMCxx, CKE08, CS88b, CC10, CC12, CJ05, CFR10, CPD17, CK11, DDL13, DY98, EB96, EMRV92, FL13, GP93, GSS98a, GSS00, GR97, GHRW98, GW98, Gue97, GD03, GA96a, GA96b, Gus98, GS98b, HOST95, HAS02, HA17, HEGH14, JMC97, JMB09, Kon93, KLZ⁺06, Kk95, Le97, Lem98, LCD14, Lin95, LSCM96, LJ96b, LJ96a, LO96a, LCP93, LRW95, MBS⁺00, MG11, MB16, McD97, McK96, MPPA96, NT06, Nil04, NPR03, OCU05, Pan95, PNB94, PD15, RRR05, RGKM12, RW94, SRPD06, SWS96, SL91, SL97b, Sch94, SG97, SMC97, SHHG93, SHT⁺95, SC94, SC95, SLC96, SLC97, Sta95a, SC94, SC95, SLC96, SLC97, Sta95a, SP01].

**Multipole** [WC94a, WC94b, WLMP99, WZC⁺17, WZC19, YR99, Yin15, YTK14, YB01, ZJ91, ZZ93, AHHLP93, AG88a, AG88b, AP99, AP00, AP03, Ami00, ATMK03, AY020, AiIS⁺21, ATR⁺12, AC17, BDMN03a, BDMN03b, BS09, BG97, BS19, BWS⁺95, BV96a, BS97, BHE⁺94, BHER94, BL98, BH03, BHGR04, BHGR05, BSSF96a, BSSF96b, BK96, CDJ07, CC04, CC05, Car09, CG88, CSA95, CWHG09, CDF10, CCZ97, CWK08, CCKL09, CG99, CCG⁺06b, CR901, CPP93, CS82, CWD08, CRW93, CB20, CFR08, CB09, CK12, Dac06, Dac09, Dac10, DMC20, Dar02, DM07, DM12, Dar97, Dar00a, Dar00b, DH04a, DH04b, DC07, DR96, DK92a, DK92c, ESR01, ES04, EB94, Eng11, EG08, EG09a, EG09b, Erg11, EG13, EG01, FOCB06, FLZB97a, FLZB97b, FPG05, FD09, Fuj98, GDC08, Gas97, GBM06]. **Multipole** [GF06b, GF06a, Gav11, GSC01, GIS98, GY08, GR02, GG16, GroZ04, GKD09, GE13, GB11, GR88b, GG89, GG90, GH02, GCH⁺18, GD05, GD06, GD08, GD09, GODZ10, GAD13, Ham11, HHKP09, HS08, H03, HYS21, HC10, HW10, HW11, HF92, HU97, HR98, HGD11, HJZ09, HLL⁺18, IYK16, Kan15, KM00, KSS10, KS11, KKB⁺21, KLM⁺09, KMC09, KS98a, KS98b, KS04, KP05a, KP05b, KP08, KAN95, KN95, KAN96, KCF⁺05, Lb98, LM02, LDB06, LOSZ07b, LCL⁺12, LBS16, LB91, LB92a, LB92b, Lj98, LZL04, LQ04, Lm04, LCQF18, LGG⁺13, LC14, Li09, Li09, LX17, LY14, LCZ07, LCM07, LCHM13, LWM⁺02, MJ95, MK99, MG07, MG09, MD98, MB05, MR07, MRH14, MMNB06, MS20, NW89, NT09, NT94, NN12, NH97, OSW05, OSW06a, Of07, Of08, Oks09, OCK⁺03]. **Multipole** [OYK⁺14, OC03, OMC08, OFH⁺08, OP07, ON09a, PRT92, PN95, PJY96, PPS94, PPS95, PSS95, PA14, PTA21, QC15, Rah96, RS20, RŽ09, RKR121, SB10, RTZ⁺96, RO04, RA⁺08, RS97, RS06, RCWY07, SG⁺04, SF18, Sar03, Sat10, SL97a, ST06, SWW99, SM97, SH98, SKT94, Sin95, SKP95, SP97, Sta95b, SB96, SK04, Sud04, STZ14, Syl03, Tak14, TSIM16, TCD17, TCD20, Tau03b, Tau04, TXL19, TCW08, TC09, TG08, TD09, VOD08, WJY006, WL96, WY050, WY07b, WY07a, WL⁺07, WQ0L08, WC⁺20, WCZ21a, WCZ21b, WH94, WJHG06a, WHG96a, WHG96b, WHG96b, WV2K11, XYW⁺08, XJ08, YS18, YRGS13, hYtWbWL08, YR98, YB97, YBZL03, YB02, Yn06, YNS⁺09, YBK⁺11, YBNY12, YB12, YBNY13, iYNK02, YAO18, YAO20, YSM05, ZCG00, ZT07, ZH10, ZHPS11, ZX19, ZCL⁺98, ZY05, ZKL⁺07]. **Multipole** [ZGD⁺16, ZB95, ZD05, CB14].

**Multipole-accelerated** [BHE⁺94, BHER94, ZD05].

**Multipole-Based** [GSS98a, GSS00, YB01, LDB96].

**multipole-to-local** [CFR08, YS18].

**Multipoles** [And92, AC94, GSS98b, HLL08, LHL08, Mak99, OLL03, OLL04].

**Multiprocessor**
Multiprocessors [BB87, HS95].
multiadrics [CNB02]. Multiresolution
[VK94]. Multiscale [ERT12, TW03].
Multithreaded [ZBS15]. Multivariable
[BL05]. multiwavelet [FBHJ04].

Name [Cip00]. Napa [PA02]. natural
[AO10]. Near
[BT06, CAJ09, ON09a, Rei99]. near-rigid
[CAJ09]. Nearest [CK95b]. Neighbor
[Bor86]. Neighbors [CH95b]. Neptune
[MKFD02]. network [LB91]. Networking
[ACM97, Hol12, LCK11]. networks
[Kan15, LJK98]. Neumann [GGM93].
New-version-fast-multipole-method
[LCM07]. Newport [IEE95]. News [Kan15].
NH [Mak93]. no [BEM04]. Node
[BB87, FNR08]. Node-Level [BBK15].
Non-Uniform [BB87], nonbond [DK92a].
nonbonded [ATMK03]. nonequispaced
[PSN04]. nonlinear [CAJ09]. nonlinearly
[CC13]. nonsymmetric [GR02]. nonplanar
[BB97]. nonsmooth [Benn06]. normal
[GG16]. Nose [VVW96]. Notre [IEE96c].
November [ACM96, AC97, ACM99,
ACM03, Hol12, IEE90, IEEM92b, IEEM93,
IEEM04, IEEM02, KJ99, LCK11]. nuclear
[PG95]. number [GBK98, Ich02].
numbers [JdR18, WYCW05]. numerica
[Ise97]. Numerical
[CL91, GKK07, Krc02, Pri94, TDBE11,
dCGQS06, Atk97, BCM02, BCH93, CDF10,
C97, CHJN03, Dar00b, GCG99, Gre90b,
GM94, GH98, KSC99, Krc01, OR99, PRT92,
RSS96, TNYO12, Wam99, ERT12].

O [Mak93]. Object
[BW95, SHMC97, ESR901, SM97, SHM98].
Objects [BVW96, BV96b, SLC96, SLC97,
BV96a, EG09a, Erg11, TC90]. Oblique
[SM97, CCKL09]. obstacles [Mak93]. Oct
[WS93]. Oct-Tree [WS93]. October
[An97b, HB93, IEEM92a]. Off [HL15, DH86].
Off-Loading [HL15]. One
[An94a, MTES94, WW92, FSR08, HM95,
MR07, SK04, YR98].

one-dimensional [SK04, YR98].
One-Tflops [An94a, MTES94]. onto
[BV92a, LB92a]. open [CK91]. Opening
[And98]. OpenMP [AAB17]. operator
[CFR08, Lem98, Lem04, YS18]. Operators
[CAJ05, Beb06, E82, CB29, ESM98, FBHJ04,
Rah96, Rok98, TW03]. OPFMM [CRG01].
opportunities [An90]. Optical [Fal97].
Optimal [DKG92b, HHJK90, BWS95,
BME90, CRG01, MG90, PRL03].
optimal-parameter [CRG01].
Optimization [BK15, MBS15].
Optimizations [DCM20]. Optimizing
[PD15, ZBS11, CB20]. Orbits
[GS98, Le 97, ZZ93, KS98a]. Order
[BT06, LS93, RRR05, Ah96, DC07, GH98,
GBMN06, GL96, PRL03, Pia21, TWY906,
Tat93a, Tat04]. Oregon [ACM99, IEE93].
organic [CKS91]. organization [AO10].
organizations [TD09]. Origin [Le 97].

orthotropic [ON09b]. oscillatory [XZ19].
other [ZB95]. overlapping [KP05a].
overview [SB96].

P [PG95b]. PA [ACM96], Package
[HXC21]. pair [CK95a]. Pairwise
[BP88, CKS91]. Palazzo [An95a]. Panel
[An97b, RRR03]. Panels [RR95]. Paper
[HOST95]. Papers [Ah97b, IEEM92a].
parabolic [JH08]. paradigms [MMC99].
Parallel [AAL17, An94b, ADB94,
ADG99, B+95, BADG00, BPT14,
Bha97, BS97, BP88, CDCCD97, GKS94,
GCH18, HAS02, HTA97, HP95, HJ96,
IFM09, HJM05, JLB02, JKCG08, Liu94,
LO96a, LO96b, LC93, MFF03, Mak04,
Mat95, MBS15, NRR93, OFK14, Per99,
Pri94, SWW94, SP99, Sin95, SHHG93,
T098, TDBE11, WS93, WSS95, Xu95,
Parallelism \cite{BGLM05}, Parallelization \cite{LB91, Lea92, TCD20, BCOY93, DK93, EG08, EG09b, HYS21, SWW99}, parallelized \cite{AiIS21, OME92}, Parallelizing \cite{CvHMS94, Sta95a}, parameter \cite{CRG01}, Parametric \cite{SC94}, Park \cite{RSS96}, Part \cite{Dem96a, Dem96b}, Particle \cite{BOX00, DYP93, Gre87, MFKN03, Pri94, VTG91, AGR88a, CGR88, CC13, CB09, CKB11, DKPH04, ELC02, FMI93, GY08, GR87, Gre88, KM00, KK16, Kro99, KP05a, LRJ99, PJY95, WY05, WS95b, YGSR01}. Particle-in-cell \cite{CC13}. Particle-Mesh \cite{BOX00, DKPH04}, particle-particle \cite{PJY95}, particle-reinforced \cite{WY05}. Particles \cite{BP88, HE88, BP93, CPP93, DKG92a, GDK89, Ich02, JdR18, Kon93, LDB96, YRGS13}. partition \cite{AYO20}. Partitioning \cite{BB87, Ten98, EG09b, GYO05}, passing \cite{KP08}, PDEs \cite{A+97}. PEACH2 \cite{HL15}. PEC \cite{GSC01}. Peculiar \cite{ZQS94}. pedestrian \cite{CRW93}. penetrable \cite{ESRS01}. Pennsylvania \cite{IEE92a}. Pentium \cite{WSB97}. Perfect \cite{HAS02}. perfectly \cite{GROZ04, GDK09}. Performance \cite{ACM97, BGI+99, BK15, Car07, FHM99, HL15, Hol12, IE94b, IE96b, IE98, LCK11, LWM+02, MKF01, NMH06, RC97, SF18, SKT94, WPM+02, CFR08, CFR10, HXC21, IYK16, INS+20, MD12, Sha06, WSB+97}. Performing \cite{Sar03}. Periodic \cite{CWGH97, RO04, RW94, Ami00, BS19, CPP93, CFH89, DKG92c, FLZB97a, FLZB97b, GKO4, HM95, HNO06, KS98a, KS98b, KS04, LDB96, LBGS16, LCZ07, NN12, ONOsa, ONOsb, ONO9a, ONO9b, PG96b, SRT93, Sin95, YBS97, YAO18, YAO20}. periodicity \cite{YS18}. Petascale \cite{OYK14, YBNY13}. Pfiops \cite{MH07}. PGAS \cite{MRH14}. PGAS-FMM \cite{MRH14}. Phantom \cite{TNO12}. Phantom-GRAPE \cite{TNO12}. Phoenix \cite{ACM03}. photonic \cite{ON08b}. Phys \cite{Dac10}. physics \cite{Gre94, PG96a}. Piecewise \cite{GSS98b}. Pipeline \cite{HZH+18}. Pittsburgh \cite{ACM96, IEE92a}. plan \cite{Ano90}. Planar \cite{GGM01}. Planck \cite{Lem98, Lem04}. plane \cite{GKM96, MD98}. planetesimals \cite{MKFD02}. plasma \cite{AGR88b, JKCGJ08, PG94}. plasmon \cite{GIS98}. plasmonic \cite{ATR+12}. platform \cite{BAD01}. platforms \cite{IKY16}. plus \cite{CG04}. PMD \cite{Win95}. Point \cite{CK95b, HXC21, LKM02, Rei99}. points \cite{STZ14}. Poisson \cite{WZC21b, AC17, BH03, GL96, LJ98, LCHM10, LCHM13, MCBB07, MGM95, Mi108, RS20, RŠž09, VGT91}. polar \cite{BP85}. polarisable \cite{HHKP09}. Polarizability \cite{PNB94}. polyelectrolyte \cite{FOCB96}. Polygons \cite{BT03}. polyharmonic \cite{BL97, BCR01, BPT07}. polymers \cite{BCOY94}. Polynomial \cite{DGR96, PRT92, Rei99}. Polynomials \cite{Pan95, CAJ09, Mak93}. practical
Prager [GCH+18, LGG+13].

pragmatic [SB96]. Precise [Ami00].

preconditioned [BGGC06, GD07a].
Preconditioner [CDGS03, CDGS05, CPD17, Car06, DDL13, Of08, TCD17].

Preconditioners [MG11, ABD04, Car09].

Preconditioning [NN12, Beb06, FPG05, LZW04, MG07, MG09, RWY07].

predictor [TWYC06]. predictor-corrector [TWYC06].

preeminent [YB12].

preprocessing [SK04].

Prescription [GS98b, CRW93].

presented [Ano97b].

Pressure [YAO18, YRGS13].

Price [WSB+97]. Price/performance [WSB+97].

Princeton [HM86, HGC+15].

Principles [OKF14].

Problem [APG94, AGPS98, Ano94a, Dem95, Dem96a, Dem96b, HTG02, MTE94, Yin15, CCKL09, DH86, DHM03, Gre90b, IHM05, Kat89, KS98a, Mil08, Pud16, SSF96, TL14, WXQL08].

Problems [BB87, EMV92, GA96b, KK95, LJ96b, LJ96a, MG11, MBS15, SWW94, SG97, WZC+17, AP90, AD95, ATR+12, BSL09, Bes00, BCP08, BHGR04, BHGR05, BGGC06, CC04, CC05, Car99, EG08, EG09a, Erg11, FST05, Fuj98, GDDC08, GLS06, HM95, HNO06, HU97, JH08, Lab98, LCQF18, Lin95, Liu98, MIES90, Oku96, ON08a, ON08b, ON09a, Rah96, RSBS19, RO04, SCM+90, TWYC06, WJYO06, WY07b, WSLW95, XWY+08, XJM08, iYNK02, ZY05].

Proceedings [ACM96, ACM97, AG88, ERT12, Hol12, HM86, IEE02, Kar95, LCK11, Rod89, Ano92, Ano95a, IEE92a, IEE98, KK88, PA02, Wel91, B+95, BGPW00, HB93, HTA+97, IEE90, IEE92b, IEE93, IEE94b, IEE96b].

Proceedings. [IEE96c].

processes [JaR+18].

process [Sal96].

Processing [B+95, HTA+97, BCOY94, Rod89].

Processor [WWF02, FL13, HYS21, MIH07].

processors [GD08].

products [And08].

Program [CDCD97, YB01, App85, LBI+97, WS95b, Win95].

Programmable [PA02, HFKM98].

programming [MRH14].

Programs [BGM05, RC97].

PROGRAPE [HFKM98].

PROGRAPE-1 [HFKM98].

Progress [Ano95b, Ano96, Ano97a].

Prolate [KLZ+06].

Propagation [Ano97b, IEE94a, IEE95, IEE96a, IEE97, WC94a, WC94b, CHJ03, GL06].

propagator [ZB95].

properties [WSB97].

Quadrature [WK18].

Quantum [PS96, KLM+09, SSF96].

quartic [WHG96b].

quasars [SWJ+05].

Queen [IEE97].

Radar [Gue97, Ano97b, Ano97b].

Radial [Bu03, BLA05, BL97, BNC98, BCR01, CB02, GD07a, PS04, Ym06].

Radiation [CSMCxx, SG97, COK08, YRGS13].

Radiosity [SHT+95, HSA91, MMN06].

Radome [BVW96].

Random [MP221, CG97, ESR01, ST06].

Range [Pie93, AO10, BAL91, BDS07, BP93, Ess95, KMC09].

range-limited [BDS07].

rank [HW11].

Rapid [Gre87, KLZ+06, Rok85, Rok90, BH93, EGT97, Gre88, GR88a, HSA91, PJY95].

Ray [WC94a, WC94b].

Ray-Propagation
[WC94b]. RCS
[BVW96, BV96b, BV96a, Gue97, RCW97].
reacting [NMDK99]. reaction [DC07].
ready [BAD01]. Real
[MSS20, MKF01, SH07]. Real-time
[MSS20]. realistic [NKV94], rectangular
[AYO20]. Recurrence [CSA95].
Recursions [GD01]. Red [WSB97].
redefinition [PJY96]. Reduced
[HW11, HF92, DKG92c]. Reduced-rank
[ZB95]. regime [QCG15]. region
[MKFD02]. regular [Besse0, CDF10, HW10].
regularization [JP98]. reinforced
[WH05, WH07]. related [Ano90, BCH93,
GCG99, GODZ10, KMC09, ON08b].
relations [CSA95]. Remarks [CCG96a].
Renewing [Ano90]. renormalization
[BG94]. Reply [KAN96]. representation
[DM07, GODZ10, STZ14, TW03]. Research
[ERT12, Ano90]. resonances
[GIS98, RTZ96]. Resonant [ES04, SA10].
Resource [HZH98]. review
[Ano95b, Ano96, Ano97a, Gav11]. reviews
[Les96]. Revision [CC12, ZHS910].
Revisiting [KS04]. Rigid
[BT95, JBL02, CAJ11, CH006, ZBG15].
rigid-inclusion [HNO06]. rigorous
[SKPP95]. Ring [BHGS90]. Rockefeller
[IEE90]. Rohlin [HM95, HS08, SB98].
Rome [MBA97]. Root [GGM01]. Rotating
[WHG96b]. Rotation [GD03, Dac06].
Rotne [GCH98, LGG913]. Rough
[JM97, JMB98, ESR01, JMB98].
Round [DH98]. Round-off [DH98].
RPFYMM [GCH98]. run [RC97].
run-time [RC97]. Runs [Bar90]. Routine
[AAB917].

SA1 [MG96]. Salt [Hol92]. sampling
[LX17]. San [ACM97, B95, Kar95]. Santa
[Sav97]. Savart [Ros06]. SC11 [LCK11].
SC2002 [IEE02]. SC2003 [ACM03]. SC97
[ACM97, ACM97]. SC99 [ACM99].

Scalability [RS97]. Scalable
[An94b, BHE94, BHER94, GKS94,
GKS98, HAS02, HGD11, IEE94b, MSV92,
OKC93, OKF14, YB12]. scalar
[GD07a, KSC99]. Scale [BADG00, OKF14,
SRPD06, WLMP99, QSWS94, Ang17,
ATR92, EG08, Erg11, EG13, FLZB97a,
FLZB97b, GF06b, GF06a, HHM19, INS92,
KPO8, LCQF18, LCZ97, LWM92, PN95,
WY05, WY07a, WS15, WXY08].
Scaling [CDC97, FRE98, YBY12,
Goe99, KLM99, SSF96, WJGH96b].

Scatterers [HOST95]. Scattering
[BVW96, EMMR92, GA96a, GA96b, HAS02,
JMC97, JMB98, LJ96, LJ96a, SHMC97,
SMC97, SLC97, ZCG00, AP99, AP00, AD05,
BN07, BGC06, CC04, CC05, Car09,
CWK08, DHO4a, ESR01, EG08, EG09a,
Fuj98, GH08, GSC01, GD05, HC10, HW10,
JBCMC98, Lab98, LCG9, MGO7, RAK96,
RTZ96, Rok90, SM97, SHM98, TCM98,
TC90, WJY06]. scheduling [YF98].
schedule [NMD99, NMH06, WLL97].

Schrödinger [ZK107]. Schur [MG11].

Schwarz [BT03]. Sci [BEM94]. Science
[FH99, IEE92a]. sciences [SM95].
Scientific [B95, HTH97, MT98, MSV92,
CGL03, LKM02, MI107, PD99, Rad98].
Screened [BFO99, GH02, HJZ09, ZHS10].

Seattle [IEE94a, LCK11]. Second
[IEE96c, AHP93, BSS96b, KS11, TAN04].

Section [Gue97]. seismic [Fuj98]. self
[TY912]. self-gravitating [TY912].
Seminar [RS99]. semiseparable [CG04].
sensitivity [DH98]. Sensor [Ano97b].
separated [Eng11]. September [Ano95a].

Sequential [WSW95]. series
[CC04, CC05, ZHS11]. set
[TY912, TY912]. Sets
[CK95b, PD15, Eng11]. Seventh [B95].
Sham [BSS96b]. shape [LM92]. shaped
[YRGS13]. shared [H95, RC97, SKE89].
shared-memory [Ske89]. short
[BAD96]. shells [CAJ90]. short
[GODZ10, KSC99, PJY96, ST02, YR98].

Spline [CS98b, DKG92b]. Splines [CS98a, BL97, BCR01, BPT07]. Square [GGM01]. Stability [Nil04, Sud04]. stable [DH04b]. standard [BCP08]. static [VOD08]. Station [ERT12]. statistical [Kan15].

Steepest [JMC97, JMB98, ESR01]. steepest-descent [ESR01]. Stellar [HM86]. Step [BS93, FLZB97a, FLZB97b, KM00, RCWY07]. stepping [BSS97].

Storage [Hol12, LCK11]. Structural [BPK85]. Structure [BADG00, NT96, ZQSW94, AYO20, GF06b, GF06a, Goe99, Kat89, KS98a, NT94].

Structures [And99, CSMCxx, GGM01, MI96, RW94, WPM+02, Car09, CWK08, EG13, LCZ07, WS92, ZCL+98, ZY05].

Studies [RTZ+96]. Study [BGLM05, HM86, Pri94, Dar97]. studying [Kro01]. sub [LCZ07]. sub-entire-domain [LCZ07]. Subdivision [BT95]. Summation [CWA14, LS93, Ami00, BAL01, IHH05, SF18, ZB14].

Summer [RSS96]. Sums [DNS90, BG94, DYP93, KS04, RO04, SL97b].

Sunnyvale [Wel91]. Supercomputers [FQG+92, HM86, BAD01].

Supercomputing [ACM96, Ano92, IEE90, IEE92b, IEE93, IEE94c, Kar95, Ano92, KK88]. Surface [MG11, CC97, ESR01, ZBG15]. Surfaces [CSMCxx, HAS02, JMC97, JMB98, GH08, JBC98, RKRL21]. Surfaces-Wire [CSMCxx]. suspended [VGBZ09].

SW26010 [HYS21]. switch [SGD+04].

Switching [HL15]. Symbolic [Pie93, CB20]. symmetric [CG04, DMC20, OSW06a]. Symposium [Ano97b, HB93, IEE92a, IEE94a, IEE95, IEE96a, IEE96b, IEE97, PA02, K+96, Mak93]. Syracuse [IEE96b].

System [BGI+99, RKGM12, BAAD+97, TMES94, ZB95, HTG02]. Systems [AAB+17, CPD17, GP93, Gre87, HEGH14, MT98, VDG91, YF05, AB95, BS19, BWS+95, BGGC06, CL91, CDF10, CFH89, DYP93, DKG92c, EIM+92, EFT+93, Gre88, Ich02, KS98a, KS98b, KN95, LM02, LBGS16, LB92a, LBI+97, LCM07, LCHM10, LCHM13, PGB05, PG96b, TYON12, YB12, YAO20, ZB95]. Systolic [BHGS90, DHM03].

T3D [BAAD+97]. tails [ADG96].

tangential [GH08]. Target [SB98, GSC01].

targets [Ano97b]. Task [AAB+17].

Task-Based [AAB+17]. Taylor [WCZ+20].

tearing [LS05, LOSZ07a, LOSZ07b, OSW06b].

Technique [WZC+17, Gas97, KLM+09].

Techniques [CDGS03, CDGS05, PRT92, SWW99].

Telescoping [LRW95]. Template [BGLM05].

Tennessee [IEE94b]. tensor [BS19, CB14, CSA95, GCH+18, HC08, HLL+18, LGG+13, YA018].

Tensors [PNB94]. Terabytes [IEE02]. teraFLOPS [TMES94]. Term [DNS90]. terms [JP89].

test [AB95]. Tflops [Ano94a, HNY+09, HN10, MTE94, MFK00, MKF01, MKFD02]. theorem [KSC99, Lab98]. theorems [HC08].

Theoretical [CC15]. theory [AP99, BS19, Buh03, CK00, GD07b, K+96, LBGS16, MSS20, Pel98, Rok85, Rok90, Tau03a].

thermodynamics [Kan15]. Thin [ZCL+98, CAJ09, ZY05]. Thin-stratified [ZCL+98].

Third [KK88, Rod89, Bha97].

Thousands [BT03]. Three [CS98a, JMB98, LO96a, Nil94, Pie93, Pri94, SL91, SC95, WSW+95, YB97, BS19, BPT07, CWK08, CGR99, CCG+06b, ESR01, ES04, ESM98, GR88a, GR97, GH02, GD06, GD09, LB92b, LCQF18, MCB97, OLLL03, PSS95, SL97a, Tak14, Tsim16].
Three-Body [Pie93], Three-Dimensional [JMBC98, Pri94, WSWL95, YB97, BSL90, CWK08, ESRS01, ES04, ESM98, LCQF18, OLL03, PSS95, Tak14, TC09, TG08, WSWL95, YAO20].

Three-Dimensional [Pie93].

Three-Dimensional [JMBC98, Pri94, WSWL95, YAO20].

Three-Dimensional [JMBC98, Pri94, WSWL95, YAO20].

Three-Dimensional [JMBC98, Pri94, WSWL95, YAO20].

Three-Dimensional [JMBC98, Pri94, WSWL95, YAO20].

Three-Dimensional [JMBC98, Pri94, WSWL95, YAO20].

Time [BS90, MD98, BSS97, FLZB97a, FLZB97b, GD07b, KM00, MSS20, OFH90, RC97, SRK91, VW02, Xue98].

Time-dependent [MD98, MSS20].

Time-domain [VW02].

Time-efficient [YF98].

Time-harmonic [GD07b].

Time-step [KM00].

Top [Cip00, DS00, MBS00].

Topological [BN07].

Toroidal [CKS91].

Toronto [HB93].

Touchstone [FQG92].

TPM [Xu95].

translates [HLL18].

trained [HHKF09].

transfer [GODZ10, KMC09].

Transform [EB96, EB94, GS91, HLL08, HW11, LHL08, OLL03, OLL04, Sar03, ST02, Sud04, Boy92b, EMT99, GS98a].

Transformation [DNS90].

transforms [DR95].

Transient [BB97].

Trees [BF78].

Trees [BF78].

trees [HLL18].

trenches [TCW08].

Trends [MBS15, Car09, CGL03, Les96].

triangulated [RS94].

Truly [APG94, Ano94c].

truncated [TCW08].

Truncating [BPK85].

Truncation [OC03, AP00, AB95, CC04, CC05].

tube [Lin95].

tumors [ES04].

tunel [YB12].

tuning [MK01, NMH06].

turbulence [HNY09, YNS09, YB12].

Turkey [Ano97b].

Two [LS93, McK96, Pan95, Pie93, RRR05, BL97, Car06, CHL06, CCG96a, CC10, CC12, ECL02, EG01, GH98, JKCGJ08, Kro01, NT09, PSS95, RRR03, Rok90, Rok98, RCWY07, SKPP95, WY07b, XJM08, YB04, YAO20].

Two-Center [Pan95].

Two-component [JKCGJ08].

Two-Dimensional [LS93, BL97, CC10, CC12, ECL02, GH98, Kro01, NT09, PSS95, RRR03, WY07b, XJM08].

two-grid [Car06].

two-step [RCWY07].

Type [Gus98, ZZ93].

U.C.L.A [AG88].

U.S. [Ano90].

ultra [DM07, DM12].

ultra [DM07, DM12].

ultracold [JKCGJ08].

Uncertainty [MBS15].

Unified [JBL02].

Uniform [BB87].

uniqueness [YSM05].

unit [DKG92c, KS98b].

University [IEE94a].

unknowns [YBK11].

Unrelaxed [PNB94].

unstructured [HKS05, MSV92].

UPC [ZBS11].

Updates [Kan15].

Updating [HA17].

upon [TD09].

Uranus [MKFD02].

USA [Hol12, HM86, IEE96c, ACM97, IEE02, K96].

Use [HM86, SPS96, Bes00, Mak93, PJY96, SM97].

User [Wel91].

Using [BVW96, BV96b, BP88, CL12, CKE08, CS98b, CPD17, GA96a, HE88, HXC21, LKM02, LSW95, MI96, MPFA96, Per99, SG97, SHMC97, SM97, SP99, SC94, BS19, BV96a, Bor86, BH88, CKS91, CVHMS94, DM07, ERS01, ES04, ESM98, Gas97, GF06b, GF06a, GD05, HC10, HLL18, Kan15, KM00, LBGS16, LB91, L98, LO96b, LCZ07, LWM90, MI95, MRH14, MSS20, OYK14, Pri94, RC97, RS20, Sat10, Syl03, Tau03a, WY07a, WS92, WSWL95, YB97, YBK11, YBNY13, ZCG00].

UT [Hol12].

Utah [RSS96].
vacancies [Kon93]. value
[Lin95, ON09a, ON09b, RTA98]. values
[LX17]. variable [Tau03a, Tau04]. variables
[JP89]. Variants [YTK14, BHER94].
Variational [DM12, DM07]. Vector
[CS98a, TYON12, HC08, XWT09]. Vectorized
[Bor86, GDK89, BP93]. Velocities
[ZQSW94]. versatile [WS95a].
Version [GS98a, NT96, SP01, GG89, GG90,
GR97, GH02, LCM07]. very
[BSSF96a, BE90, LBI97, PPS94].
vesicles [VGZB97]. via [AGR88b, GB11,
Gue97, GD07a, GODZ10, WJGH96b].
videoscopie [Ano97b]. virial [KS11].
virtual [XJM08]. viscous
[BLA05, VGZB97]. Vlasov [VTG91]. Vol
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