A Bibliography of Publications about the Fast Multipole Method

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Title word cross-reference

1 [TPKP12]. $15K$ [WGL+98]. 2
[GROZ04, Lab98, Liu8, ON08a, RS94, VGZB99, WYW05, WXQL08]. 3
[BDMN03b, BHR04, BHRG04, CDM99, DDL13, Dar02, GP08, GD03, JMC97, NW89, NH97, ON08b, PG94, Sar03, WY05, WLL+07, YN02, YB01, ZY05]. $50/
Mflop [WSB+97]. $7.3/Mflops [KFM99]. 3
[PG96b]. h = 0 [DNS90]. K [MG05, CK95b].
LU [MG07]. $R^N$ [CBN02]. N
[Aar85, Alu94, APG94, Alu96, AGPS98, AAL+01, And99, Ano94b, ADB94, ADBGP99, Bag02, Bar86, BADP96, BAAD+97, BADG00, BAD01, BS97, BN97, BOX00, Bor86, BOS07, BME90, BME93, BEM94, DH86, Dem95, Dem96a, Dem96b, DHM03, FRE+08, FM95, FM96, FQG+92, HTG02, HJ96, IFM09, IHN05, KAT89, KFM99, KFM00, KMT04, LKM02, Liu94, MIES90, MIES94, MT95, MD12, MG05, MMC99, McD97, NMH02, Oku96, PGB05, Per99, PRL03, SWW94, Sla96, Sha06, SP99, Sin92, SH95, SHT+95, SRK+12, TAMES94, TWYC06, TYON12, TYNO12, Ten98, TL14, WPM+02, WS92, WS93, WN14, WSL95, WSH+12, Xu95, Yin15, YF05, Ano94b, CK95a, CK95b, GKS94, GKS98, Gre90b, HNY+09, HN10, HS95, KK95, Xue98].
$N \log N$ [AO10, DYP93, ADO11]. $\nu$ [SH07].
$Oolog_2n)$ [JBL02]. $O(N)$
[BSL11, Deh02, DTG96, OKF14, Xue98].
$O(N \log N)$ [BH86, FGM11, PJY95]. $r^{-\lambda}$
[CJ05]. $R^{-\nu}$ [SH07]. $r \pm 1_{12}$ [Pan95].
-Body [Ano94b, CK95b, GKS94, KK95, BEM94, GKS98, Gre90b, HNY+09, HN10, HS95, Xue98, AGPS98, AAL+01, And99, ADB94, Bag02, BADG00, BS97, BN97, BOX00, FM96, HTG02, H69, KFM99, KFMT00, SWW94, SHG95, SHT95, Ten98, WPM+02, WS93, Xu95, Yin15, YF05, Aar85, Alu94, APG94, Alu96, Ano94a, Ano94c, ADBGP99, Bar86, BADP96, BAAD97, BAD01, BDS07, BME90, BME93, CK95a, DH86, Dem95, Dem96a, Dem96b, DHM03, FRE+08, FM95, FQG+92, IFM09, IHM05, Kat89, KMT94, LKM02, Liu94, MIES90, MTES94, MT95, MD12, MG05, MCM99, NMH06, Oku96, PGB05, Per99, PRL03, Sal96, Sha06, SP99, Sin92, SRK+12, TIMES94, TWYC06, TYON12, TYON12, TL14, WS92, WN14, WSWL95, WSH+12].

-D [NH97, BDMN03b, CDM98, DDL13, Dar02, GROZ04, GD03, JMC97, NW89, Sar03, TPKP12, WYW05, YB01, ZY05].

dimensional [Lab98].

-means [MG05].

-Nearest-Neighbors [CK95b].

/ [Ano95a, KK88].

1 [FMI+93, HFKM98, KMT94].

1.349 [MFK00].

10 [WGL+98].

10th [PA02].

11th [Ano95b].

12 [Hol12].

12th [Ano96].

13 [Dac10].

13th [Ano97a].

14 [BEM94].

15th [BR93].

190 [HN10].

1986 [HM86].

1987 [AG88, Rod89].

1990s [Ano90].

1992 [Ano92, IEE92b].

1993 [IEE93].

1994 [IEE94a, IEE94c].

1996 [Ano97b, IEE96c].

1997 [HTA+97, IEE97].

1999 [ACM99].

19th [MPA97].

1A [OMH+94].

2 [BCAD06, GA96b, MHI07, Spr05].

2-D [GA96b].

2-Pflops [MHI7].

20.5Gflops [MD12].

20.5Gflops/W [MD12].

2003 [ACM03, CHJN03].

2009 [ERT12].

2011 [LCK11].

2012 [Hol12].

240-Processor [WWF02].

25th [Ano95a].

29.5 [MKFD02].

2A [EIM+92].

2D [CCZ97].

2nd [HOST95, Mak93].

3 [OME+92].

3-D [WY07a].

3051-66 [YB97].

33rd [IEE92a].

3-D [HOST95, Mak93].

4 [Ano94a, FM95, FM96, MTES94, MT95, TMES94].

42 [HNY+09].

5 [KF99, KFMT00].

512 [MHI07].

512-core [MHI07].

512-Gflops [MHI07].

6 [MKFD02, MKFD02, MFKN03].

8 [MD12].

88 [KK88].

8th [BGPW00].

90 [IEE90].

91 [We91].

92 [IEE92b].

93 [IEE93].

94 [IEE94c].

94e [BEM94].

96 [ACM96].

98 [BGPW00].

= [Ano97b].

A-posteriori [XTH09].

above [GSC01].

Accelerate [CS98b, LSCM96, LKM02, TYNO12].

Accelerated [BCL+92, EB96, SH07, WN14, BHE+94, BHER94, EB94, EG01, GD09, GODZ10, GAD13, Ham11, JH08, LCM07, MR07, Tak14, WLY+07, ZD05].

Accelerating [GHRW98, MG09, WC94a].

Acceleration [CKE08, LCZ97, SFWW99, VCE00, BK96, KCF+05, SGD+04].

accelerator [ATMK03, MD12].

accomplishments [Ano90].

Accuracy [CDCD97, DY98, CB09, GL96, JP89].

Accurate [SRPD06, AHLP93, Dac06, EG09a, EG13, HHKP09, ZGD+16].

achieves [WGL+98].

Achieving [SSF96].

ACM [IEE02, Kar95].

ACM/IEEE [Kar95, ACM97].

acoustic [AD05, BSL09, BN07, CWK08, GF06b, GF06a, HW10, TCW08, WLY06, ZGD+16].

acoustic-structure [GF06b, GF06a].

acoustics [FPG05, OLL04].

Acta [Ise97].

Adaptation [McK96].

Adapted
Adaptation
[BT95, BL09, BS97, BFO99, GE13, GP08, HEGH14, KK95, NPR93, PD15, SHHG93, SHT*+95, Ten98, ZT97, BCP08, CGR88, CGR99, CHL06, CFR10, FOEB96, GY08, GL96, HJZ09, LCL*+12, LB92a, LCHM10, LCHM13, PRI03, YBZ04, ZHPS10].

addition [HC08, KSC99].

dedication [HS95].

Advanced
[HM86, Win95, dCGQS06, TYON12].

Advances
[BLA05, SM05].

advantage [Ano92].

Adventures
[CDCD97].

activities [KSS10].

AFMPB
[LCHM10, LCHM13].

after [ZQSW94].

Algebraic
[Car09, Of08, PRT92].

Algorithm
[BS00, Bor86, BFO99, CDM98, CSMCxx, Deh02, DD95, EB96, JMC97, JMBC98, KK95, Lea92, MG11, MPPA96, NPR93, OKF14, SLC96, SLC97, WC94b, WS93, WN14, YR99, ZBS15, AR91, Aho96, AP99, ATR*+12, BH86, Bar86, BJWS96, BSS97, BCL*+92, BP03, BCOY94, BP93, CGR88, CG04, CC13, CGR99, DRS96, EGH97, EB94, EG08, EG09a, EG09b, Erg11, EG13, GH08, GDDC08, GKD09, GR87, GR88b, HS08, HSA91, HC10, HR98, JMC98, KM00, KS98a, LM02, LD96, LB91, LB92a, LB92b, LZL04, LHL08, LC93, LC94, LWM*+02, MG07, MG09, MCB07, NW89, NK94, NT09, OR89, OLL03, OLL04, PJY95, PRL03, Rah96, RCWY07, Sar03, ST02, SK04, Sud04, TCW08, TC90, WJYO06, WL96, Xue98, YR95, ZBS11].

algorithm
[ZCL*+98, ZBS95, ZD05, Lea92].

Algorithms
[APG94, AGPS98, Ano94c, ADBGP99, BF78, Bha97, BN97, Boy92a, C95a, D500, DGR96, LCE*+96, Liu94, MBS*+00, MBS15, Pri94, Ten98, BCP08, BHE*+94, BHER94, BME93, BEM94, DHM03, Ess95, Gre94, K*+96, Makt93, PR92, Pel98, Win95, Yin09].

ALiCE
[HTG02].

All-to-All
[HP95].

almost
[FL13].

Alpha
[WGL*+98].

Alpha/Linux
[WGL*+98].

alternative
[AD05, CL91].

AMBER
[DK93].

AMBERCUBE
[DK93].

AMS
[RSS96].

Analyse
[Ano97b].

analyses
[Ham11, XWY*+08].

Analysis
[AP99, AP00, BH89, ERT12, HAS02, Hol12, JMBC98, LCK11, Sat10, VGC91, Ano97b, Car07, Car09, Dar00a, EG13, JBM98, JKC90, KSC99, NH97, OC03, OLL04, Pel98, RC97, RSS96, SSG*+04, S07, S04, WY05, WY07b, WY07a].

Analytical
[Gus98, CC13].

analyze
[SHM98].

Analyzing
[CSMCxx, JMC97].

Angeles
[AG88, Rod89].

Anger
[CC04].

angular
[GY08, WHG96b].

Animation
[BT95].

Ankara
[Ano97b].

Annual
[Ano95b, Ano96, Ano97a, IEE92a, Mak93, PA02].

anomalies
[ON09a].

Antennas
[IEE94a, IEE95, IEE97, MI95].

interpolation
[Sar03].

Appendix
[Ano90].

Application
[LSCM96, LJ96b, LJ96a, NH97, SGG*+04, VOD08, WSM*+95, DHM03, ERS01, GRO04, HNO06, IWM*+02, SSG*+04, YR98].

Applications
[CK95b, CCKL09, OSW05, BHER94, HNY*+99, LGG*+13, Of07, ON08b, PD98, ZY05, dCGQS06, TDBEE11].

Applied
[GP08, ST06].

approximations
[DC07, HW11, LEN04, RŽ09].

April
[Dem95, Dem96a, Dem96b].

Arbitrary
[LS93, EIM*+92, GSC01, GL96, KS98b, LM02, Tau03b, YRGS13].

Architectural
[DRS96].

Architecture
[Lea92, NMH06, Sin92, TYON12, TYNO12].

Architectures
[SHG95, HGD11, LCL+12, MMC99].
arithmetic [LKM02]. arm [KLM+09].
array [CKS91]. article [Dac10]. ASCI [WSB+97]. aspects [CHJN03]. assemblies [CPP93, LDB96].
Astrophysical
[Ano94a, KFM99, MTES94, MT95, MFKN03, WS92, HN10, TMES94].

Astrophysics
[FQG+92, HNY+09].
asymptotic [BK96, Dar00a]. atom [DKG92c, FRE+08]. Atomic [AC94, DKG92a, Kon93].
Atoms [McD97, Pie93].

August
[IEE96b, RSS96].

Automatic
[RGKM12].

Autotuning
[HEGH14].

Avalon
[WGL+98].

Axial
[SMC97, SM97].

B [Ano90].

balance
[BAAD+97].

Balanced
[PD89].

Balancing
[SHT+95, Ten98, FG96, MG05, PGdS+15].

Baltimore
[IEE96a, IEE96b].

Banff
[ERT12].

Barnes
[AAL+01, Ano94b, BJWS96, BGLM05, GKS94, GKS98, SHT+95, WSH+12, ZBS11, ZBS15].

Bases
[WHG96b].

Based
[CD13, GSS98a, GSS00, MPPA96, YB01, AO10, BLA05, BN98, BHGR05, FMI+93, GROZ04, GKD09, GP08, HHKP09, HLL08, LM02, LDB96, Liu08, NN12, Sud04, Tak14, WL96, ZHPS11, ZGD+16].

Beach
[IEE95].

Behaviour
[ON09a].

Beltrami
[SHMC97, SM97, SMC97].

BEM
[And08, BN07, FP05, GF06b, GF06a, HKS05, MB05, NH97, Tau03a, WYW05, XWT09, XTH09, XXY+08, iYtWbWL08, YBK+11, ZY05, ZGD+16].

BEM-FEM
[MB05].

Beowulf
[WWF02].

Between
[Pie93, CDM98, RSZ09].

Beyond
[ZHPS11].

Bianisotropic
[SHMC97, SHM98].

BIE
[SMC97, GH98, WY05, WY07a].

Comprehensive [AC94], compressible [ECL02]. Compression [YGSR01, XTH09].

Comput [BEM94]. Computation [Gue97, GD03, GD05, GODZ10, McD97, MSV92, Pie93, YRGS13, ATMK03, AO10, FOCA96].

Computational [BEM94]. Computationally [KM00].

Computers [AT98, Ano94a, BGGT90, BP88, CKE08, FM96, HE88, IEE92a, KFMT00, MTES94, MFKN03, Bar86, EIM+92, EFT+93, FMI+93, FM95, HFKM98, HGS90, KMT94, MIES90, MT95, MHI07, OHM+94, OYK+94, OME92, SC+90, TMES94].

Computing [ACM97, B+95, BGI+99, HTA+97, Hol12, IEE94b, IEE98, LCK11, Mat95, PA02, SHMC97, WWF02, WSW+95, CG03, CPP93, MHI07, MMC99, PRT92, Rod89, SH07, Xue98].

Coulomb [ADG96, BFO99, CFH89, DNS90, DKG92a, DKG92b, DKG92c, DTG96, GGM01, GH02, HJZ90, KS98a, SP+96, SSF96, ZHS+99].

Couombic [PG96b, SKT93]. Coupled [LS05, MBS15, PNB94, SGD+04, NMDK99].

Coupling [BDMN03a, BDMN03b, Dar02, DM07, GMN06, MB05]. course [BG97].

CPU [HEG14], cracks [iYNK02].

Cross [Gue97, GP08]. Crystal [MPA96].

crystals [ON08b]. CS [Dem95, Dem96a, Dem96b].

Cubic [WWF02]. cultura [Ano95a].

Current [CG03, Les96].

curved [GH08].

Curves [STZ14].

Custom [PA02].

cutoffs [DKG92b].

cylinders [CG97, ZCG00].

Cylindrical [SHMC97, SMC97, SM97, SHM98].

d [NH97, BDMN03b, BHR04, BHGR04, CDM98, DDL13, Dar02, GROZ04, GP08, GD03, GA96b, JMC97, Lin08, NW89, ON08a, ON08b, PG94, RS94, Sar03, TPKP12, VGZB09, WYW05, WYW07a, WLL+07, WXQL08, YINK02, YB01, ZY05].

Dame [IEE96c]. Dangers [BS93]. Dark [ZQS94].

Data [AAL+91, And99, BGLM05, HJ96, LY14, NPR93, SS99, SHT+95, WPM+02, BADP96, BAAD+97, DR95, KP08, LOSZ07a, RSK09].
WS92, YGSR01. Data-driven [LY14]. Data-Parallel [HJ96, NPR93].
data-sharing [BADF96]. data-sparse [LOSZ07a]. databases [Mak93]. DC
[IEE194c]. debugging [RC97]. December
[Ano92, IEE98, Kar95, K+96, Rod89]. Decomposition [CK95b, BJW96, BP03,
BOYO93, BCOY94, CvHMS94, CWDO8, LM02, OSW06b, RTA+08, ZT07].
Decoupled [PGdS+15]. deferred [JH08]. deformable [Ros06, ZD05]. della [Ano95a].
Delta [IEE96c]. Dense [GSS98b, BGGC06, CG97, PG94]. densities [GY08]. Density
[ÁC94, PNB94, WWF02, KAN95, KAN96, WJGHG96a, WJGHG96b]. dependence
derivative [BN07]. derivatives [BSSF96b]. Derive [RGKM12]. Descent
[JMC97, JMBC98, BCOY93, CWD08, GP08, LM02, Liu08, LCZ07, Mil08, OSW06b, OFH+08,
RZ+09, VW02]. domains [BHR04, GGM93, GK04]. Don't [Bar90].
doubly [GK04]. doubly-periodic [GK04]. DR [MH07]. DREAM [OMH+94].
DREAM-1A [OMH+94]. driven [BSL11, LY14]. drops [ZD05]. dual
[CCKL09, Liu08]. DNA [FOCB96]. domain
[BOYO93, BCOY94, CWD08, GP08, LM02, Liu08, LCZ07, Mil08, OSW06b, OFH+08,
RZ+09, VW02].

Diffusion [CM06, KP08, STZ14]. digest
[IEE94a, IEE95, IEE96a, IEE97]. DIMACS
[Bha97]. dimension [MRO7]. Dimensional
[JMBC98, LS93, Pri94, SC95, WSW+95, BSL09, BL97, BCR01, CWK08, CC10, CC12,
ESORS01, ES04, ECL02, ESM98, GH98, GD09, Kro01, Lab08, NT09, OLL03, PSPS95,
PSS95, RRR03, SK04, Tak14, TC09, TG08, WY07b, WSWL95, XJM08, YR98, YB97].
Dimensions [CS98a, LO96a, McK96, Nil04, RRR05, SL91, BPT07, CGR99, CHL06,
CCG+06a, CCG+06b, EG01, GR88a, GR97, GH02, GD06, LB92b, MCBB07, Rok90,
Rok98, SKPP95, YBZ04, SL97a]. dipolar
[CPP93, CFH89, KN95]. Direct
[Aar85, BME90, BME93, BME94, FL13,
GL96, LHL08, NMH06]. direction [HM95]. Directional [BPT+14]. Dirichlet
[GGM93, Mil08]. disciplinary [WSH+12].
discretization
[BDMN03a, BDMN03b, Dar02, GBN06]. Discretized
[VTG91]. dispersions [CG97]. distorted
[HC10]. Distributed
[AC94, IEE96b, SRPD06, YB01, BCOY93,
DK93, GB11, HGD11, KP05b, LBC91,
LMCPP92, MCMC99, MRH14].
distributed-memory [DK93, LMCPP92]. Distribution
[Ahu94, APG94, APG94, Ano94c, BAAD97].
Distribution-Independent
[Ahu94, APG94, AGPS98, Ano94c]. divide
cG04]. divide-and-conquer [CG04].
DNA [FOCB96]. domain
[BOYO93, BCOY94, CWD08, GP08, LM02, Liu08, LCZ07, Mil08, OSW06b, OFH+08,
RZ+09, VW02]. domains
[BHR04, GGM93, GK04]. Don't [Bar90].
doubly [GK04]. doubly-periodic [GK04]. DR
[MH07]. DREAM [OMH+94].
DREAM-1A [OMH+94]. driven [BSL11, LY14]. drops [ZD05]. dual
[CCKL09, Liu08]. Dynamics
[HEGH14, BAAD+97, CK95a, FG96, MG05]. Dynamical
[SWW94, WSWL95]. Dynamics
[BGGT90, BHGS90, BP88, CCD97, HM86, JBL02, LPC93, MPFA96,
NT96, OKF14, Sch94, TDBEE11, WLMP99,
ATMK03, BSL11, BAL91, BSS97, BCL+92,
BHE+94, BHER94, BCOY93, BCOY94,
BP93, CvHMS94, DK93, EGHT97, FMI+93,
GDK89, GZK07, HGS90, Ich02, KM00,
Ko05a, LM02, LBC91, LBI+97, LMCPP92,
LWM+02, LRJ+99, NKV94, NT94,
OMF+94, OYK+14, OP07, PGB05, Ske89,
Economization [LRW95]. Editor [GW98].
Editors [MBS+00, DS00]. effects [AB95, BPK85]. Efficient [BS97, DH04a, EG98, HS98, NT96, RS96, SK93, Ami00, App85, Bar86, BHR94, CL91, CCZ97, CWD08, EG99, GR88b, KM00, Kro01, KS98a, LDL96, O08, PN95, WL96, WHG94, YF98, ZGD+16]. eigendecomposition [CG04]. eigensolver [ZGD+16]. Eighth [HTA+97]. elastic [CCZ97, TC09]. elasticity [GKM96]. elastodynamic [CB14]. elastoplastic [WY97b]. elastostatic [GH98, HLL08, Liu08, MB05, iYNK02, ZY05]. elastostatics [OSW05, PN95]. Electric [Gus98, PNB94, ZZ93, Ami00, App85, Bar86, BHR04, CL91, CCZ97, CWD08, EG99, GR88b, KM00, Kro01, KS98a, LDL96, O08, PN95, WL96, WHG94, YF98, ZGD+16].
Evaluations [CS98b]. event [BSL11].
event-driven [BSL11]. evolution [SWJ"05].
Ewald [Ami00, BAL91, CL91, DYP93, DNS90, FMI+93, KM00, LS93, PG96b, SL97b, SKPP95]. exascale [YB12].
Excitation [GIS98]. execution [BDS07, LY14, YF98].
exhibition [Ano95a].
Existence [YSM05]. Expansion [Le 97, OC05, Pan95, SPS96, AHL93, OC03, WL96, WXQL08].
Expansions [Boy92b, CJ05, McD97, RGKM12, AR91, GB11, Len98, MD98, SH07]. explicit [JP89, Pud16].
exponential [TWYC06]. Expressions [Pan95, CS82]. extended [KS1].
Extending [CDJ07, DC07].
Extension [GY08, TYON12].
Sections [PA03]. Extraction [YB01, JC04, NW89].
extreme [WSH+12].

facility [RTZ+96]. FAMUSAMM [EGHT97]. Fur [LSCM96, HW11].
Far-Field [LSCM96, HW11]. Fast [And92, BT95, BL97, BN98, BCR01, BPT07, BK15, BPT+14, BF78, BCP08, BKM09, BVW96, BV96b, BS00, BL98, BL05, BFO99, Boy92a, BHR04, BHGR04, BHGR05, CDM98, CDGS03, CDGS05, CL12, CSMCxx, CC297, CS98a, CS98b, CWA14, CBN02, CJL+97, CC10, CC12, CKB11, Dac06, Dar97, DY98, Dem95, Dem96a, Dem96b, DD95, DR95, DGR96, EB94, EB96, EMRV92, ESM98, EG13, FOCB96, Gas97, Gav11, GSC01, GP93, Gre94, GHRW98, GW98, Gue97, GD06, GD07a, GD08, GAD13, GA96a, GA96b, GS98b, HOST95, HAS02, HC10, HEH914, JMC97, JMBC98, JBMC98, KLZ+06, KMC09, KK95, KCF+05, LCD14, LHL08, Liu09, LC93, LSCM96, LJ96b, LJ96a, LO96a, LRW95, MI95, MI96, MBS+00, Mak04, MG11, MB05, MGM95, McK96, MPPA96, MMNB06, NW89, NT96].

Fast [Ni04, NPR93, OF07, OKS09, PSN04, PD15, Pri94, RRR05, RW94, RS94, SWW94, Sch94, SG97, SHMC97, SMC97, SHHG93, SHT+95, SC94, SC95, SLC96, SLC97, Sta96a, SP01, STZ14, WC94a, WC94b, WLMP99, WYW05, WY07b, WXQL08, WSW+95, WXY+08, XJM08, YR99, Yin09, Yin15, YNS+09, YBO1, ZY05, AMLP93, AR91, AGR88a, AGR88b, AP99, AP00, AP03, AM100, ATM03, ATR+12, BDML03a, BDML03b, BSL09, BG97, BWS+95, BV96a, BSS97, BCL+92, BP03, BSSF66a, BSSF66b, BK96, CDJ07, CC04, CC05, Car09, CRR88, CWGH93, CDF10, CKW08, CCKL09, CCR99, CHL06, CCG+06b, CR01, CFP93, CWD08, CRW93, CCR08, CB09, Dac09, Dar02, Dar03, DM07, DM12, Dar00a, Dar00b, DH04a, DH04b, DC07, DRS96, ERS01, ES04, Eng11, EG08, EG09a, EG09b, Erg11, EG09, FGM11].

fast [FLZB97a, FLZB97b, FPG05, FD09, Fuj98, GDDC08, GBMN06, GF06b, GF06a, GSI98, GY08, GR02, GRO04, GKD09, GE13, GR87, GR88b, GG99, GG90, GS91, GH02, GD05, GD09, GOD10, Ham11, HHKP09, HS08, Hav03, HLL08, HW10, HW11, HU97, HR98, HGD11, HJ90, Kan15, KM00, KSS10, KS11, Kon93, KLM+09, KS09a, KS09b, KS04, KP05a, KP05b, KP08, KAN95, KAN96, Lab98, LOSZ07b, LCL+12, LB91, LB92a, LB92b, Lj98, LXL04, LGG+13, LC14, Lui08, LY14, LZC07, LCM07, LCM10, LCHM13, LWM+02, Mak99, MG07, MG09, MR07, MRH14, NT09, NN12, NH97, OR99, OSW05, OSW06a, OF08, OCK+03, OYK+14, OMC08, OLLL03, OLLL04, OFH+08, OP07, ON09a, PJY96, PPS94, PPS94, PSS95, PA14, Rah96, RRR03, RŠŽ09, RTZ+96, RO04, RTA+08, RS97, RS06].

[RCWY07, SGG+04, Sar03, Sat10, SL97a, SL97b, ST06, SWW99, SM97, SHM08, SH07, SK94, Sin95, SKPP95, SP97, Sta95b, SB96,
ST02, SK04, Sud04, Syl03, Tak14, Tau03b, Tau04, TCW08, TC09, TD08, TD09, VOD08, WJYO06, WL96, WY05, WY07a, WLL+07, WFC08, WHG94, WJGHG96a, WHG96a, WJGHG96b, WHG96b, WSLW95, XWT09, YRS13, hYtWbWL08, YR98, YB97, YBZL03, YBZ04, Yin06, YBK+11, YBNY12, YB12, YBNY13, iYNK02, YSM05, ZCG00, ZT07, ZHPS10, ZHPS11, ZB14, ZCL+98, ZKL+07, ZGD+16, ZB95, Boy92b, CD13, CB14, CKE08, CFR10, DDL13, EMT99, FL13, GR97, GS98a, Lea92, LCP93, RGKM12, SL91, SLCL98a, SLCL98b.


GADGET [Spr05]. GADGET-2 [Spr05]. Galactic [MFK00]. Galaxies [SWJ+05].
Galaxy [FM96, FM95]. Galerkin
[AHLP93, AP03, HK505, OSW55, WXT09]. Gauss [GS98a, GS91]. Gaussian [BSSF96a, BSSF96b, KS98a, Le97, Ros66, Sal96],
Gegenbauer [CC05]. General
[LCD14, McD97, BSL11, FG96]. Generalization [Boy92b]. Generalized
[ADO11, CBN02, GR02, KAN95, KAN96, ST06, SK04, WJGHG96a, YR98].
Generation [Sa96]. geometric [CDF10]. Geometries [MG95, KS98b, NW89].
Geometry [SC94, TW03]. Gflops [MHI07, WGL + 98]. giant [RTZ + 96].
gigaflops [WSB + 97]. GMRES [BGGC06]. Good [Ten98]. GOTPM [DKPH04]. GPU
[GE13, Han11, HEGH14, Kan15, WN14]. GPU-accelerated [Han11]. GPUs
[HNY + 09, HN10, YN97, YBK + 11, YBNY12, YBNY13]. gradients [BSSF96a].
grain [Bar86]. grained [PA14]. graining [GB11]. granularities [BME93, BEM94].
GRAPE
[Ano94a, CKE08, EIM + 93, FM95, FM96, KFM99, KFMT00, MIES90, MTS94, MT95, MT98, MFK00, MKF01, MKFD02, MFK03, Mak04, MHI07, MD12, OME + 92, TMES94, TYO12, YF05].
GRAPE-2A [EIM + 92]. GRAPE-3
[OME + 92]. GRAPE-4 [Ano94a, FM95, FM96, MTS94, MT95, TMES94].
GRAPE-5 [KFM99, KFMT00]. GRAPE-6 [MKF00, MFK01, MKFD02, MFK03].
GRAPE-8 [MD12]. graphics [GD08]. gratings [Sat10].
gravitating [TYON12]. Gravitational
[CDM98, SWW94, DHM03, MD12, OME + 92, SC + 90]. Gravity
[BOX00, Xu95]. GreeM [IFM09]. Green
[BKM09, Tan03b]. Greengard
[Alu94, Alu96, HM95, SB98]. Green’s
[CB14]. Grid [Ber95, Bor96, Boy92a, HTG02, Bes00, Car06, DM90, ZGI + 10].
grid-calculated [DM90]. Grid-Multipole
[Ber95]. Gridless [AGR88b, AGR88a]. grids [GOS99, HW10].
ground [TCW08]. Group [Well]. groups
[AB95, Kan15]. Guest [D+00, GW98].
guided [Sat10]. guided-mode [Sat10]. Guidelines [BV96b, BV96a]. guns [NH97].
GvFMM [BSSF96a, BSSF96b].
half [BSL09, CB14, GSC01]. half-space
[BSL09, CB14]. Halos [ZQS + 94].
Hamiltonian [CDF10]. Hanover [Mak93].
hardware [ATMK03]. Harmonic
[CA09, GD07b, GODZ10]. harmonics
[PJY96, ST02, WL96, YR98]. HARP
[KMT94]. HARP-1 [KMT94]. Hartree
[KAN96, WJGHG96a, Kan95]. Harnet
[WS93]. Haskell [TL14]. head
[GDZ10, KMC09]. head-related
[GDZ10, KMC09]. heavy [RTZ + 96].
heavy-ion [RTZ + 96]. Held [HDT + 97].
Helmholtz [AP03, BKM09, CD13, CHL06, CCG + 06a, CCG + 06b, CC10, CC12, DDL13, Dar02, GHRW98, GD03, GD09, GAD13, GS98b, NN12, Nil04, OLL04, ON08a, RS97, Rok98, Sta95b, Sta95a, VW02].
Hermite
[KMT94, NHM06]. Heterogeneous
[ADB94, HGD11, LCL + 12]. Hierarchical
[Alu94, AGPS98, BH86, BJWS96, BH88, Deh02, Dem95, Dem96a, Dem96b, HS95, HJ96, SHG95, SHT + 95, EG09b, HNY + 09, HSA91, JP89, MG05, PG94, Sin92, VCM00, WS92, Xue98, YGSR01].
Hierarchical-element [VCM00]. High
[ACM97, BGI + 99, BK96, CFR08, CR10, FHM99, GBMN06, Hol12, IEE94b, IEE96b, IEE98, LCK11, Nil04, TWWC06, WWF02, DC07, GH08, GY08]. High-Density
[WWF02]. High-frequency [BK96].
High-order [TWWC06, DC07, GH08].
High-Performance [FHM99, IEE94b].
Higher [PNB94, RRR05]. Highly
[BS97, OME + 92, YBNY13]. Hilton [IEE90].
holes [MKF00]. homogeneous
[CL91, YRGS13]. homogenisation
Karhunen \cite{ST06}. Kernel \cite{CWA14, MR07, YBZL03, YBZ04, Yin06, ZHPS11}. kernel-independent \cite{MR07, YBZL03, YBZ04, ZHPS11}. Kernels \cite{LCD14, GR02, PSN04}. kind \cite{AHLP93, Tau04}. kinematics \cite{RSZ09}. King \cite{ACM99}. knots \cite{PSN04}. Knoxville \cite{IEE94b}. Kohn \cite{BSSf96b}. Krylov \cite{Car07, GD07a, JH08}. KWIK \cite{DTG96}.

Lagrangian \cite{NMDK99}. Lake \cite{Hol12}. Landau \cite{Lem98, Lem04}. language \cite{MRH14}. Laplace \cite{GGM93, GR97, LHL08}. Laplacian \cite{GGM01}. Large \cite{BAGD00, BVW96, BV96b, CDGS03, CDGS05, FLZB97a, FLZB97b, GF06b, GF06a, HOST95, IFM09, OKF14, SRPD06, SLC97, WLMP99, WY07a, ZQS9W4, ATR+12, BAAE+97, BWS+95, BV96a, Car09, DYP93, EG08, Erg11, EG13, GDDC08, GLS06, GDK89, KP08, LBI+97, LCZ07, LWM+02, PN95, PG96b, TC09, WYW05, WY95, XY9W+08}. Large-Scale \cite{BADG00, OKF14, SRPD06, GF06b, GF06a, ATR+12, EG08, Erg11, EG13, LCZ07, PN95, XY9W+08}. Lattice \cite{LS93, BC94, KS04, RO04}. Laugh \cite{Bar90}. Layer \cite{MCK96, GDK09}. Layered \cite{GA96a, GA96b, GROZ04}. layers \cite{GROZ04}. Learning \cite{RGKUM12, HHKP09}. Leave \cite{Wil00}. Legendre \cite{AR91, Sud04}. Less \cite{WN14}. Letters \cite{MBS+90}. Level \cite{BK15, CJO5, AP03, DKG92a}. library \cite{BSvdG+94, CKB11, TYNO12}. limited \cite{BDS07}. Line \cite{YR99}. Linear \cite{Goe99, Pie93, Pud16, WJGHG96b, BH03, BGGC06, KLM+99, OSW05, SSF96}. lines \cite{JH08}. Link \cite{GD98}. Liquid \cite{MPPA96}. Liquids \cite{AT87, CKS91}. lithography \cite{YB97}. Load \cite{SHT+95, Ten98, BAAD+97, FG96, MG05, PGdS+15}. Local \cite{RGKUM12, CFR08, MCBB07}. Locality \cite{SHT+95}. locally \cite{GH98}. Loève \cite{ST06}. logarithmic \cite{JP89}. Logical \cite{Bor86}. Loki \cite{WSB+97}. London \cite{DKG92a}. Long \cite{Pie93, AO10, BAL91, BPK85, ESS95}. Long-Range \cite{Pie93, ESS95}. lossy \cite{GSC01}. Low \cite{GHRW98, DH04a, TPKP12}. low-communication \cite{TPKP12}. low-frequency \cite{DH04a}. LSS \cite{BCAD06}. Luther \cite{ACM99}. Many \cite{BP88, IFM09, JBL02, KP05b, LO96a, LCP93, MFKN03, LCL+12, LB91+97, MHI07, SRK+12, TMES94, WSH+12}.
Massively-Parallel [MFKN03, MHI07]. matched [GROZ04, GKD09]. materials [GM94, NKV94, K*96]. Matérn [CWA14]. Mathematical [BCM02, CHJN03, Dar97]. Mathematics [BGPW00, CHJN03, Dar97]. Matrix [PNB94, SP01, Car06, FG96, XWT09]. matrix-free [Car06]. matrix-vector [XWT09]. Matter [ZQSW94, FRE+08]. Maxwell [DH04b, DY98, GBMN06, GD07b, Hav03, ON09b, ON09b, ZC00]. May [SGD+04, WY05, WY07a]. Mechanical [BCM02, Bat03, hYtWbWL08]. Media [GA96a, GA96b, GROZ04]. medium [ZC14]. MEG [KCF+05]. MEG/EEG [KCF+05]. Memory [YZ01, BCY93, DK05b, BLC91, MCMPP92, MMC99, RC97, Ske89]. MECS [SGD+04]. Mesh [BOX00, DYP93, DKPH04, KM00]. meshes [HKS05, ZBG15]. meshless [BLA05, YNS*09]. Message [KP08]. Message-passing [KP08]. metamaterials [OMC08]. Meter [WWF02]. Method [Alu94, AAL+01, And92, Ano94b, BT03, BK15, BPT+14, BVW96, BV96b, BL05, BH88, CL12, CS98b, CKB11, EMR92, GP93, GKS94, Gue97, GA96a, GA96b, GS98b, HOST95, HAS02, KLZ*06, LCD14, LSCM96, L96b, L96a, M96, Mck96, NT96, Nil04, PD15, RRR05, RW94, Sch94, SG97, SM97, SHHG93, SC94, SC95, Sta95a, SP01, WC94a, Yiu15, ZJ91, AGG88a, AGG88b, AP00, AP03, Aim00, ATM93, BDN03a, BDN03b, BSL09, BG94, BWS+95, BV96a, BL98, BH03, BHR04, BHG04, BHG05, BSSF96a, BSSF96b, BK96, CDJ07, CL91, CC04, CC05, Car09, CWHG97, CDF10, CC297, CWK08, CCKL09, CCG+06b, CRG01, CPP93, CRW93, CFR08, CB09, Dac06, Dac09, Dac10, DYP93, Dar02, DM07, DM12, Dar97, Dar00a, Dar00b, DH04a, DH04b, DC07, DRS96, DKG92a]. method [DKG92c, ERS01, ECL02, FGM11, FOCB96, FLZB97a, FLZB97b, FD09, Fuji98, FMI+93, GDDC08, GSC01, Gib08, GR02, GROZ04, GKS98, GG99, GC99, GH02, GP98, GD05, GD06, GD09, GDZ10, Ham91, HM95, Hav03, HC10, HW10, HW11, H97, H97J, Ich02, JH08, JC04, Kan15, Ko10, KSS10, KS11, KLM+09, KMC09, Kro01, KS98b, KS04, KP05b, KN95, KCF+05, Lab98, LCL+12, LJ98, LGG+13, LHL08, LC14, Liu08, Liu09, LCZ07, LCM07, MI95, Mak99, MB05, MR07, Mil08, MR14, MNBM06, NT94, NH97, OSW05, OSW06a, OS08, OKS09, OCK+03, OYK+14, OME08, OFH+08, OP07, ON09a, PN95, PSS94, PSS95, PSS95, PG96b, PA14, RRR03, RO04, RTA+08, RS97, RS06, SG+04, Sat10, SL97a, SL97b, SM97, SH07, Sin95, SKPP95, SP95, Sta95b, SK04]. method [Sud04, Syl03, Tak14, Tau03b, Tau04, TG08, VW02, VOD08, VGZB09, VCM00, WY05, WY07a, WFC08, WHG94, WHG96a, WJG96b, WH96b, WSL95, XJM08, YR98, YB97, YBL03, YB12, YBNY13, iYNK02, YSM05, ZT07, ZHP91, ZHS91, ZB14, ZKL+07, ZGD+16, ZB95, CD13, CKE08, CC10, CC12, CFR10, DDL13, FL13, GR97, LCP93, RGKM12, SL91, Gav11]. Method-Eicient [NT96]. Methods [Aar85, Alu94, AG88, BS93, BS97, BR93, DY98, Dem95, Dem96a, Dem96b, FQG+92, GHRW98, GW98, HEGH14, HJ96, LRW95, MBA97, SRD06, SHG95, SHT+95, TDBEE11, VTG91, WSW+95, YF05, A+97, BLA05, BCR93, BL97, BG97, BN98, BCR01, Bes00, BDB07, Car07, CB00, CMI+97, CWD08, CK00, Eng11, Gas97, GBMN06, GY08, GCG+99, Goe99, GE13, GKM96, GK04, GD08, HS95, HDG11, Kro99, Kro02, KP05a, KP08, LS05, LOSZ07a, LOSZ07b, LOG12, Lin95, LY14, MC92, NN12, OSW06b,
microlithography [Ful97], microlocal [BDMN03a, BDMN03b, Dar02, GBMN06], micromagnetic [VOD08], microprocessors [NMH06, MSV92], micromagnetic [VOD08], microprocessors [NMH06, MSV92], microprocessors [NMH06, MSV92], micromagnetic [VOD08].

militaires [Ano97b], military [Ano97b], million [DKG92a, DKG92c], million-atom [DKG92c], MIMD [FQG +92, LB92a], mine [ESRS01], Minimal [BF78], Minimization [OC05], Minneapolis [HTA +97, IEE92b].

Microsoft [HB93], Microstrip [MI96, MI95, ZCL +98], Microwave [Ano95a, ZC00].

Models [AC94, HB93, PN95, SGG +04], Minnesota [IEE97], motion [DHM03, Kro01].

Modern [NMH06], Modification [SB08], Modified [Bar90, BADG00, CHL06].

module [DK93], Molecular [AC94, BGGT90, BAL91, BHGS90, BP88, CDDCD97, Gus98, HG9890, LBC91, LB1 +97, LMCPP92, MPPA96, OKF14, WLMP99, WS01, ATMK03, BSL11, BWS +95, BSS97, BCL +92, BHE +94, BHER94, BOCY93, BCOY94, BP03, CvHMS94, DK93, EGHT97, GDK89, GZK07, KM00, LM02, LWM +02, NKV94, OYK +14, OP07, PGB05, PA14, SWW99, Win95, ZB95].

molecular-dynamics [BCL +92, BP93].

Molecule [Pie93], molecules [Kan15], Moment [Gus98, McD97, ZZ93, BN98, CS82].

moment-based [BN98], Moments [PNB94, Gib08, HHKP09, Kon93].

momentum [GY08, WHG96b], monostatic [RCWY07], Monotonic [Ber86], Monte [ESRS01], Monterey [Ano95b, Ano96, Ano97a], Montréal [IEE97].

Mountain [MC92], mover [CC13], MPI [IEE96c, BCAD06, LO96b, Per99, SP99], MPI-2 [BCAD06], MPSim [LBI +97], MR [BEM94], Multi [AP03, BAD01, Lin08, WSH +12], multi-disciplinary [WSH +12], multi-domain [Lin08], Multi-level [AP03].

Multipliers [YB01], Multicore [HEGH14, ZBS15], Multidimensional [CK95b, BCP08, BL98], multigrid [Gas97, IHM05, MC92, OF08], Multilevel [CSMCxx, GS98b, MG11, SLC96, SLC97, TCW08, TC09, A +97, ATR +12, BDMN03b, DM12, EG08, EG09a, EG09b, Erg11, EG13, GDDC08, GKD09, HS08, HC10, LZZ04, LC94, MG07, MG09, RCFY07, Sar03, WJYO06, YRGS13].

Multiple [BS93, BSS97, FLZB97a, FLZB97b, KM00, Kro02], multiplication [XWT09], multiply [GGM93], multipoint [PRT92].

Multipole [LS93], Multipole [And92, BT03, BK15, BPT +14, Ber95, BVW96, BV96b, BS00, BL05, BFO99].

Boy92b, CDM98, CDGS03, CDGS05, CL12, CD13, CSMCxx, CKE08, CS98b, CC10, CC12, CJ05, CFR10, CKB11, DDL13, DY98, EBE96, EMRY92, FL13, GP93, GSS98a, GSS00, GR97, GHRW98, GW98, Gue97, GD03, GA96a, GA96b, Gus98, GSS98b, HOST95, HAS02, HEGH14, JMC97, JMBC98, Kon93, KLZ +06, KK95, Le 97, Lea92, Lem98, LCD14, Lin95, ILCM06, LJ96b, LJ96a, LO96a, LCP93, LR95, MI96, MBS +00, MG11, McD97, McK96, MPPA96, NT96, Nil04, NRP93, OT05, Pan95, PNBR4, PD15, RRR05, RGK12, RW94, SRPD06, SPS96, SL91, SL97b, Sch94, SG97, SHMC97, SM97, SHHG93, SHT +95, SC94, SC95, SLC96, SLC97, Sta95a, SP01, WC94a, WC94b, WLMP99, YR99, Yin15].

Multipole [YB01, ZJ91, ZZ93, AHL93, AGR88a, AGR88b, AP99, AP00, AP03].
Ami00, ATMK03, ATR+12, BDMN03a, BDMN03b, BSL09, BG97, BWS+95, BV96a, BSS97, BCL+92, BHE+94, BHER94, BL98, BH03, BHGR04, BHGR05, BSSF96a, BSSF96b, BK96, BK15, CD04, CDJ07, Car09, CGR88, CSA95, CWHG97, CDF10, CC13, CWK08, CCL09, CCG, CC+06b, CRG01, CPP93, CS92, CWD08, CRW93, CFR08, CB09, Dar06, Dar09, Dar10, Dar97, Dar90a, Dar90b, DH04a, DH04b, DC07, DR96, DKG92a, DKG92c, ESR01, ES04, EB94, Eng11, EG08, EG09a, Erg11, EG13, EG01, FO08, FLZB97a, FLZB97b, FPG05, FD09, Fuj08, GDDC08, Gas97, GBMN06, GF06b, GF06a, Gav11, GSC01, GIS98, GY08, GR05, GROZ04, GKD09, GE13, GB11, GR88b, GG89, GG90.

multipole
[GH02, GD05, GD06, GD08, GD09, GODZ10, GAD13, Ham11, HHKP09, HS08, Hav03, HC10, HW10, HW11, HF92, HU97, HR98, HGD11, HJZ09, Kan15, KM00, KSS10, KS11, KLM+99, KM09, KS98a, KS98b, KS04, KP05a, KP05b, KP08, KAN95, KN95, KAN96, KCF+05, Lab98, LM02, LDB96, LOSZ07b, LCL+12, LB91, LB92a, LB92b, LJ98, LZL04, LOG12, Lem04, LGG13, LC14, Lin08, Liu09, LI14, LCZ07, LCM07, LCHM10, LCHM13, LWM+02, MI95, Mak99, MG07, MG09, MD98, MB05, MR07, MRH14, MNMB06, NW89, NT90, NT94, NN12, NH97, OSW05, OSW06a, OF07, OF08, OKS09, OCK+03, OYK+14, OC03, OMC08, OFH+08, OP07, ON09a, PRT92, PN95, PJY96, PPS09, PPS95, PSS95, PA14, Rah96, RSZ09, RTZ+96, RO04, RT+08, RS97, RS06, RCW07, SGG+04, Sar03].
multipole
[Sat10, SL97a, ST06, SWW99, SM97, SHM98, SKT94, Sin95, SKPP95, SP97, Sta95b, SB96, SK04, Stn04, STZ14, Sy03, Tak14, Tau03b, Tau04, TCW08, TC09, TG08, TD90, VOD08, WJYO06, WL96, WYW05, WY05, WY07b, WY07a, WLL+07, WXQL08, WHG94, WJGHG96a, WHG96a, WJGHG96b, WHG96b, XWY+08, XM08, YRGS13, hYtWbWL08, YR98, YB97, YBLZ03, YBZ04, Yin06, YNS+09, YBK+11, YBNY12, YB12, YBNY13, iYNK02, YSM05, ZCG00, ZT07, ZHPS10, ZHPS11, ZCL+98, ZY05, ZKL+07, ZGD+16, ZB95, ZD05, CB14].
multipole-accelerated
[BHE+94, BHER94, ZD05].
Multipole-Based
[GSS98a, GSS00, YB01, LDB96].
multipole-to-local [CFR08].
Multipoles
[And92, AC94, GSS98b, HLL08, LHL08, Mak99, OLLL03, OLL04].
Multiprocessor
[SHG95, LMCPP92, Sin92, Ske89].
Multiprocessors
[BB87, HS95].
multiquadrics [CBN02].
Multiresolution
[NKV94].
Multiscale
[ERT12, TW03].
Multithreaded
[ZBS15].
Multivariable
[BL05].
multiwavelet [FBHJ04].

Napa [PA02], natural [AO10].
Near [Bor86, CAJ09, ON09a, Rei99].
near-rigid [CAJ09].
Nearest [CK95b].
Neighbor
[Bor86].
Neighbors [CK95b].
Neptune
[MKFD02].
network [LB03].
Networking
[Kan15, LJ98].
Neumann
[GGM93].
New-version-fast-multipole-method
[LCM07].
Newport
[IEE95].
News [Kan15].
NH [Mak93], no [BEM94].
Node
[BK15, FRE+08].
Node-Level
[DKG92a].
nonbond [DMM96].
nonbonded
[ATMK03].
nonequispaced
[PSN04].
nonlinear [CAJ09].
nonlinearly
[CC13].
nonscillatory
[GR02].
nonnplanar
[YB97].
nonsmooth [Beb06].
Nose
[BBW96].
Notre
[IEE96c].
November
[ACM96, ACM97, ACM99, ACM03, Hol12, IEE90, IEE92b, IEE93, IEE94c, IEE02, K+96, LCK11].
nuclear
[PGB05].
number
numbers [WYW05].

numerica [Ise97]. Numerical
[CL91, GKZ07, Kro02, Pri94, TDBEE11, dCGQS06, Atk97, BCM02, BCH93, CDF10, CG97, CHJN03, Dar00b, GCG+99, Gre90b, GM94, GH98, KSC99, Kro01, OR89, PRT92, RSS96, TYNO12, ERT12].

O [Mak93]. Object
[BT95, SHMC97, ERS01, SM97, SHM98].

Objects [BVW96, BV96b, SLC96, SLC97, BV96a, EG90a, Erg11, TC09]. Oblique [SM97, CCKL09]. obstacles [Mak93].

Oblique [SM97, CCKL09]. obstacles [Mak93].


Operators [CJ05, Beb06, CS82, ESM98, FBHJ04, Rah96, Rok98, TW03]. OPFMM [CRG01]. opportunities [Ano90]. Optical [Ful97].

Optimal [DKG92b, HJKP09]. BWS+95, BME90, CRG01, MG05, PRL03].

optimal-parameter [CRG01].

Optimization [BK15, MBS15].


organizations [TD09]. Origin [Le 97].

orthotropic [ON09b]. other [ZB95].

overlapping [KP05a]. overview [SB96].

P [PG96b]. PA [ACM96]. pair [CK95a].

Pairwise [BP88, CKS91]. Palazzo [Ano95a]. Panel [Ano97b, RR03]. Panels [RR05]. Paper [HOST95]. Papers [Ano97b, IEE92a]. parabolic [JH08].

paradigms [MMC99]. Parallel [AAD+01, Ano94b, ADB94, ADBGP99, B+95, BAGD00, BPT+14, Bha97, BS97, BP88, CDCD97, GKS94, HAS02, HTA+97, HP95, HJ96, IFM90, IHM05, JBL02, JKCGJ08, Liu94, LO96a, LO96b, LPC93, MKF03, Mak04, Mat95, MBS15, NRP93, OKF14, Per99, Pri94, SWW94, SP99, Sin95, SHHG93, Ten98, TDBEE11, WS93, WS+W+95, Xu95, YB01, ZJ91, Bar86, BAPD96, BAA+97, BAD01, BCD06, BWJS96, BCL+92, BDS07, BCOY94, Car07, CRG01, CWD08, CKB11, Dub96, DPKH04, Erg11, EG13, GLS06, GKS98, GG98, GG09, Hav03, HGS09, K+96, KK95, KP05b, LCL+12, LB92b, Lj98, LB+97, LC14, Mak93, MHI07, MG05, NKV94, OCK+03, RC97, SRK+12, Sta95b, TEM94, DLL+97, WS95b, WS95a, WSWL95, WS+9+12, YF98, YBZL03, YBNY13, Mak93, Rod89, TL14, TDBEE11].

Parallelism [BGLM05].

Parallelization [LB91, Lea92, CRG01, DG08, CRG09]. parallelized [OME+92].

Parallelizing [CvHMS94, Sta95a]. parameter [CRG01]. Parametric [SC94].

Park [RSS96]. Part [Dem96a, Dem96b].

Particle [BOX00, DYP93, Gre87, MFKN03, Pri94, VTCG91, AGR88a, CRG88, CC13, CB09, CKB11, DPKH04, ECO2, FMI+93, GY98, GR87, Gre88, KM00, Kro99, KP05a, LQ99, P95, WY95, WS95b, YGSR01].

particle-in-cell [CC13].

Particle-Mesh [BOX00, DKPH04]. particle-strain [P95]. particle-reinforced [WY95].

Particles [BP88, HE88, BP93, CPP93, DKG92a, GDK89, Ich02, Kon93, LDB96, YRGS13].

Partitioning [BB87, Ten98, EG99b, MG05].


performance [WSB+97]. time-efficient [YF98]. penetrable [ESRS01]. Pennsylvania [IEE92a]. Pentium
processors [GD08]. produced [Kon93].
products [And08]. Professor [Wil00].
Program [CD9D97, YB01, App85, LBI+97, WS95b, Win95]. Programmable
[PA02, HFKM98]. programming [MRH14].
Programs [BGLM05, RC97].
PROGRAPE [HFKM98]. PROGRAPE-1 [HFK98]. Progress
[Ano95b, Ano96, Ano97a]. Prolate
KLZ+96. Propagation
[Ano97b, IEE94a, IEE95, IEE96a, IEE97, WC94a, WC94b, CHJN03, GLS06].
propagator [ZB95]. properties
[Wy05, Wy07a]. Protein
[NT96, Kan15, KSS10, KS11, NT94].
protein-protein [KSS10]. proteins [ZB95].
protonatable [Kan15]. Provably [Ten98].
pseudo [CKS91, OFH+98].
pseudo-pairwise [CKS91].
pseudo-spectral [OFH+98].
psuedoparticle [Mak99]. Pseudospectral
[Boy92b, KLZ+96]. Purpose
[Ano94a, BGGT90, CKE08, FM96, FHM99, KFMT00, MTES94, MT98, MFKN03, EIM+92, EFT+93, FM+93, FM95, HFKM98, KMT94, MIES90, MT95, OMH+94, OME+92, SCM+90, TUMES94].
Quantum [SYP96, KLM+99, SSF96].
quartic [WHG96b]. quasars [SWJ+05].
Queen [IEE97].
Ray [WYC94a, WC94b]. Ray-Propagation
[WC94b]. RCS
[BYW96, BV96b, BV96a, Gue97, RCW07].
reacting [NMDK99]. reaction [DC07].
ready [BAD01]. real [MKF01, SH07].
realistic [NKV94]. Recurrence [CSA95].
Recursions [GD03]. Red [WSB+97].
redefinition [PJY96]. Reduced
[HW11, HF92, DKG92c]. Reduced-rank
HW11. reduction [P98]. reference
[ZB95]. region [MKDF02]. regular
[BES00, CDF10, HW10]. regularization
[JY98]. reinforced [Wy05, Wy07a].
related [Ano90, BCH93, GCG+99, GODZ10, KMC09, ON08b]. relations
[CSA95].
Remarks [CCG+06a]. Renewing
[Ano90]. renormalization [BG94]. Reply
[KAN96]. representation
[DM07, GODZ10, STZ14, TW03]. Research
[ERT12, Ano90]. resonances
[GIS98, RTZ+96]. Resonant [ES04, Sat10]. review
[Ano95b, Ano96, Ano97a, Gav11].
reviews [Les96]. Revision [CC12, ZHPS10].
Revisiting [K904]. Rigid
[BT95, JBL02, CAJ90, HNO06, ZBG15].
rigid-inclusion [HNO06]. rigorous
[SKP95]. Ring [BHGS90]. Rockefeller
[IEE90]. Rokhlin [HM95, HS08, SB98].
Rome [MBA97]. Root [GGM01]. Rotating
[WHG96b]. Rotation [GD03, Dac06].
Rotne [LGG+13]. Rough
[JMC97, JMC98, ERS01, JBMC98].
Round [DH96]. Round-off [DH96]. run
[RC97]. run-time [RC97]. Runs [B90].
SAI [MG99]. Salt [Hol12]. San
[ACM97, B+95, Kar95]. Santa [Ful97].
Sawart [Ros06]. SC’11 [LC11]. SC2002
[IE02]. SC2003 [ACM03]. SC97
[ACM97, ACM97]. SC’99 [ACM99].
Scalability [RS97]. Scalable
[Ano94b, BHE+94, BHER94, GKS94, GKS98, HAS02, HGD11, IEE94b, MSV92, OCK+03, OCF14, YB12]. scalar
[GD07b, KSC99]. **Scale** [BADG00, OKF14, SRP06, WLMP99, ZQSW94, ATR+12, EG08, Erg11, EG13, FLZB97a, FLZB97b, GF06b, GF06a, KP08, LCZ07, IWM+02, PN95, WY05, WY07a, WSH+12, XWY+08].

**Scaling** [CDCD97, FRE+08, YBYN12, Go99, KLM+09, SSF96, WJGH96b].

**Scatterers** [HOST95].

**Scattering** [BVW96, EMRV92, GA96a, GA96b, HAS02, JMC97, JMBC98, LJ96b, LJ96a, SHMC97, SMC97, SLC97, ZCG00, AP99, AP00, AD05, BN07, BGCC06, CC04, CC05, Car09, CWK08, DH04a, ESR01, EG08, EG09a, Fu98, GH08, GSC01, GD05, HC10, HW10, JBMC98, Lab98, LC94, MG07, Rah96, RTZ+96, Rok90, SM97, SHM98, TCW08, TC09, WY006, scheduling [YF98].

**Schedule** [CDCD97, FRE+08, YBNY12, Goe99, KLM+09, SSF96, WJGH96b].

**Scromdinger** [ZKL+07].

**Schrödinger** [ZKL+07].

**Schur** [MG11].

**Schwarz** [BT03].

**Sci** [BEM94].

**Science** [FHM99, IEE92a].

**Scientific** [B+95, HTA+97, MT98, MSV92, CGL03, LKM02, MHI07, PD89, Rod89].

**Screened** [BFO99, GH02, HJZ09, ZHPS10].

**Seattle** [IEE94a, LCK11].

**Second** [IEE96c, ASSL93, BSSF96b, KS11, Tan04].

**Section** [Gue97].

**self** [TYON12].

**self-gravitating** [TYON12].

**SemiLar** [RS96].

**semiseparable** [CG04].

**sensitivity** [DH86].

**separated** [Eng11].

**Separator** [An094a].

**Sequential** [WSW+95].

**series** [CC04, CCO5, ZHPS11].

**set** [TYON12, TYNO12].

**Sets** [CK95b, PD13, Eng11].

**Seventh** [B+95].

**Sham** [BSSF96b].

**shape** [LM02].

**shaped** [YR98].

**shared** [HS09, RC97, Ske89].

**shared-memory** [Ske89].

**shadow** [BADP96].

**shells** [CAJ09].

**short** [BG97, BP93].

**short-range** [BP93].

**shunt** [SGD+04].

**SIAM** [B+95, BEM94, HTA+97, RSS96, Rod89].

**Sides** [BT03].

**signature** [An094a].

**Siloxane** [MPPA96].

**Siloxane-Based** [MPPA96].

**SIMD** [TYON12, TYNO12].

**simple** [AB95, PJY95].

**Simulating** [ZBG15, ZG10, VZSB99, ZB95].

**Simulation** [ATR+12, And99, BADG00, CKS91, FM96, HEM89, KMF99, LCE+06, Mi96, Ten98, WPM+02, AGR88a, App85, BCM02, BAA9+97, BLC+92, DRS96, FLZB97a, FLZB97b, FMI+93, FM95, GF06b, GZ07, HT10, HGS90, KMT94, LM02, IWM+02, MI95, MFFK00, MGFD02, MD12, OYK+14, OMC08, PG94, SWW99, Spr05, TYON12, TYNO12, WYW05, Win95, YB97, YNS+09, YBYN13].

**Simulations** [Aar85, AAL+01, An04b, ABGP99, Bag02, BHGS90, BH88, GP93, GKS94, HP95, IFM99, KFM00, LRJ+99, MT98, MKF03, MPPA96, OKF14, SRP06, SWJ+05, WLMP99, WN14, YF05, AGR88b, ATMK03, AB95, BAL91, BDS07, BCOY93, BCOY94, CL91, CGR88, CWD08, CB09, DKG92a, EIM+93, EGHY97, ESRS01, FOCB96, FRR+08, GF06a, GKS98, GR87, GDK89, HFK99, HNSY+09, KMO00, K+96, Kro99, KP08, LBC91, LKM02, MT95, MG05, MCM99, OME+92, PA14, Sa96, Sha06, SKT93, SKT94, TMS94, VCM00, WS92, WSH+12, Xue98].

**simulator** [BSL11].

**Sin** [Boy92a].

**Single** [CG05, GP08].

**Singular** [FBHJ04, RTA+08].

**singularities** [Pel98], sized [Sat10], sizes [LCZ07].

**Skeletons** [SW94].

**Slater** [Gus98, ZZ93].

**Slater-Type** [Gus98, ZZ93].

**slightly** [ZD05].

**Society** [IEE95, IEE96a, IEE97].

**Software** [Kan15, TDBEE11, TYNO12].

**solid** [Bat03, PJY96, WL96, hYtWbWL08].

**solids** [WYW05].

**Solution** [ATR+12, GA96a, LJ96b, LJ96a, SG97, SC94, SC95, ASSL93, AP03, AD05, Atk97, BH03, BHGR04, BHGR05, CJL+97, EG08, EG09a, FLZB97a, FLZB97b, GDC08, Gas97, GLS06, Grf90b, HW10, PN95, Rok85, Rok90, WFC08, SWSL95, YSM05, ZC00].

**Solutions** [Erg11, HC10, KS11].

**solvation**
Solved [MG11]. solvent [DC07]. Solver [BOX00, MGM95, SLCL98a, SLCL98b, Xu95, BME90, CCZ97, CHL06, EG01, GL96, GP08, HLL08, Kan15, LJ98, LCHM10, LCHM13, SRK +12]. Solvers [GSS98b, BME93, BEM94]. Solving [HTG02, VTG91, Car06, Car07, LC93, LC94, MCB07, MMNB06, OLL04, XJM08, ZCL +98]. some [Sha06]. sound [CAJ09]. Source [SB98, CKB11]. Space [BT95, YF98, BS09, BK09, CB14, GSC01, HM95, HS95, SRK +12]. space-time [SRK +12]. Space/time [YF98]. Space/time-efficient [YF98]. Spaces [BF78]. Spanning [BF78]. Sparse [GOS99, LZL04, Rok98, Tau03a, LOS07a, MG09, RŚZ09, TW03]. sparse-approximate-inverse [MG09]. Spatial [BT95, BLA05, CvHM94, ZT07]. Special [Ano94a, BGGT90, CKE08, FM96, FH99, KFMT00, MTE94, MT98, MFKN03, EIM +92, EFT +93, FMI +93, FM95, HFKM98, KMT94, MIES90, MT95, OMH +94, OME +92, SCM +90, TME94, MC92]. Special-Purpose [Ano94a, CKE08, FM96, FH99, KFMT00, MTE94, MT98, MFKN03, MF95, HFKM98, KMT94, MIES90, MT95, OMH +94, OME +92, SCM +90, TME94]. Spectral [ES04]. Spectral [RCW07, OFH +98, PN95]. speeding [AO10]. sphere [BP03, CDJ07, DC07, Lin95]. spheres [GD05]. spherical [GODZ10, KSC99, PJJ96, ST02, YR98]. Spline [CS98b, DKG92b]. Splines [CS98a, BL07, BCR01, BPT07]. Square [GGM01]. Stability [Nil04, Sud04]. stable [DH04b]. standard [BCP08]. static [VOD08]. Station [ERT12]. statistical [Kan15]. Steepest [JMC97, JMBC98, ESR01]. steepest-descent [ESR01]. Stellar [HM86]. Step [BS93, FLZB97a, FLZB97b, KM00, RCW07]. stepping [BSS97]. stochastic [FST05, Sal06]. Stokes [GKM96, GKO4, Tau03a, TG08, WLL +07]. Stokesian [Ich02]. Storage [Hol12, LCK11]. Strategy [BB87, BCO93, EG09b]. stratified [ZCL +98]. Some [Sha06]. sound [CAJ09]. Strong [Kan15]. Structural [BPK85]. Structure [BADG00, NT96, ZQSW94, GF06b, GF06a, Goe99, Kat89, KS98a, NT94]. Structures [And99, CSMCxx, GGM01, M96, RW94, WPM +02, Car09, CWM08, 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, A00, BAL91, IHM05, ZB14]. Summer [RSS96]. Sums [DNS90, BG94, DYP93, KS04, RO04, SL07b]. Sunnyvale [Wel91]. Supercomputers [FQG +92, HM86, BAD01]. Supercomputing [ACM96, Ano92, IEE90, IEE92b, IEE93, IEE94c, Kar95, Ano92, KK88]. Surface [MG11, CCZ97, ESR01, ZBG15]. Surfaces [CMMCxx, HAS02, JMC97, JMBC98, GHO8, JBC98]. Surfaces-Wire [CMMCxx]. suspended [VZB09]. switch [SGD +04]. Symbolic [Pie93]. symmetric [CG04, OSW06a]. Symposium [Ano97b, HB93, IEE92a, IEE94a, IEE95, IEE96a, IEE96b, IEE97, PA02, K +96, Mak93]. Syracuse [IEE96b]. System [BGI +99, RGK12, BAAD +97, TME94, ZBG1, HTG02]. Systems [GP93, Gre87, HEH14, MT98, VTC01, YF05, AB95, BW +95, BGGC06, CL91, CDF10, CFH89, DYP93, DKG92c, EIM +92, EFT +93, Gre88, Ich02, KS98a, KS98b, KN95, LM02, LB92a, LBI +97, LCM07, LCHM10, LCHM13, PGB05, PG96b, TY012, YB12, ZB95]. Systolic [BHGS90, DHM03].
T3D [BAAD+97]. tails [ADG96].
tangential [GH08]. Target [SB98, GSC01].
targets [Ano97b], tearing [LS05, LOSZ07a, LOSZ07b, OSW06b].
technique [Gas97, KLM+09]. Techniques [CDGS03, CDGS05, PRT92, SWW99].
Telescoping [LRW95]. Template [BGLM05].
Tennessee [IEE94b]. tensor [CB14, CSA95, HC08, LGG+13].
Tensors [PNB94]. Terabytes [IEE02]. teraFLOPS [TMES94].
Term [DNS90]. terms [JP89]. test [AB95]. Tflops [Ano94a, HNY+09, HN10, MTES94, MFK00, MKF01, MKFD02].
theorem [KSC99, Lab98]. theorems [HC08]. theory [AP99, Buh03, CDA99, GR96, Pel98, Rok90, Rok98, Ta03a].
thermodynamics [Kan15]. Thin [ZCL+98, CAJ09, ZY05].
Thin-stratified [ZCL+98]. Third [KK88, Rod89, Bha97].
Thousands [BT03].
Three [CS98a, JMBC98, LO96a, Ni04, Pie93, Pri94, SL91, SC95, WSW+95, YB97, BSL09, BPTO7, CWM08, CCR99, CCG+06b, ESRS01, ES04, ESM98, GRR88a, GRR97, GH02, GD06, GD09, LB92b, MCB07, OLLL03, PSS95, SL97a, TAK14, TC09, TG08, WSWL95, YB04].
Three-Body [Pie93]. Three-Dimensional [JMBC98, Pri94, WSW+95, YB97, BSL09, CWM08, ESRS01, ES04, ESM98, OLLL03, PSS95, TAK14, TC09, TG08, WSWL95].
tiers [WHG96a]. Time [BS93, MD98, BSS97, FLZB97a, FLZB97b, GD07b, KM00, OFH+08, RC97, SRK+12, VV02, Xue98].
Time-dependent [MD98]. time-domain [VW02]. time-harmonic [GD07b].
time-step [KM00]. Top [DS00, MBS+00].
topological [BN07]. toroidal [CS091].
Toronto [HB93]. Touchstone [FQG+92].
TPM [Xu95]. trained [HHKP09]. transfer [GODZ10, KMC09]. Transform [EB96, EB94, GSR91, HLL08, HW11, HLL08, OLL03, OLL04, Sar03, ST02, Sud04, Boy92b, EMT99, GS98a]. Transformation [DNS90]. transforms [DR95]. transient [ESM98]. Translation [GD03, ESM98, GD07b, Rah96, Rok98].
translator [HS08]. transpose [JH08]. Transputer [Wel91, CKS91, LB91].
Transputers [BHGS90]. Transputing [Wel91]. treatment [KS98a]. Tree [Ano99, ADB94, ADBGP99, BH89, Bar90, BADG00, BOX00, BHH8, CDM98, CWA14, SWW94, WPM+02, WS93, WN14, WSW+95, BADP96, BAAD+97, BAD01, BCAD06, BJWS96, Dub96, GY08, JP89, PD89, PG94, PG96a, Pud16, WS92, WSWL95, WSH+12, Xue98, JKCGJ08].
Tree-Code [CDM98]. Treecode [KFM99, Mak04, SWH04, WS95a, WSB+97].
Treecodes [GSS98a, GSS00]. TreePM [Bag02, IFM09, YF05]. Trees [BF78].
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 [ES94]. tuned [YB12].
tuning [MKF01, NMH06]. turbulence [HNY+09, YNS+09, YBN13]. Turkey [Ano97b]. Two [LS93, McK06, Pan95, Pie93, RRR05, BL97, Car06, CHL06, CCG+06a, CC10, CC12, ECL02, EG01, GH98, JKCGJ08, Kro01, NT09, PSSP95, RR03, Rok90, Rok98, RCWW07, SKPP95, WY07b, XJM08, YBZ04].
Two-Center [Pan95].
two-component [JKCGJ08].
Two-Dimensional [LS93, BL97, CC10, CC12, ECL02, GH98, Kro01, NT09, PSSP95, RR03, WY07b, XJM08].
two-grid [Car06].
two-step [RCWW07]. Type [Gus98, ZZ93].
ultracold [JKCGJ08]. Uncertainty [MBS15].
Unified [JBL02]. Uniform [BB87]. uniqueness [YSM05].
unit
REFERENCES

[DKG92c, KS98b]. Universe
[BADG00, ZG1+10, BAD01]. University
[IEE94a]. unknowns [YBK+11].
Unrelaxed [PNB94]. unstructured
[HKS05, MSV92]. UPC [ZBS11]. Updates
[Kan15]. upon [TD09]. Uranus [MKFD02].
USA [Hol12, HM86, IEE96c, ACM97,
IEE02, Kar95, K+96]. Use [HM86, SPS96,
Bes00, Mak93, PJY96, RTA+08, SM97].
User [We91]. Using
[BVW96, BV96b, BP88, CL12, CKE08,
CS98b, GA96a, HE88, LKM02, LRW95, MI96,
MPPA96, Per99, SG97, SHMC97, SMC97,
SP99, SC94, BV96a, Bor86, BH88, CKS91,
CvHMS94, DM07, ESRS01, ES04, ESM98,
Gas97, GF06b, GF06a, GD05, HC10, Kan15,
KMO0, LB91, LJO98, LO96b, LCZ07, LWM+02,
MI95, MRH14, OYK+14, Pri94, RC97, Sat10,
Sy03, Tan03a, WYO7a, WS92, WSLW95,
YB97, YBK+11, YBYN13, ZCG00]. UT
[Hol12]. Utah [RSS96].

vacancies [Kon93]. value
[Lin95, ON08a, ON09b, RTA+08]. variable
[Tau03a, Tau04]. variables [JP89]. variants
[BHER94]. Variational [DM12, DM07].
Vector [CS98a, TYON12, HC08, XWT09].
Vectorized [Bor86, GDK99, BP93].
Velocities [ZQSW94]. versatile [WS95a].
Version [GS98a, NT06, SP01, GG89, GG90,
GR97, GH02, LCM07]. very
[BSSF96a, BSSF96b, LBI+97, PSPS94].
vesicles [VGZB09]. via [AGR88b, GB11,
Gue97, GD07a, GODZ10, WJHG96b].
videoscopie [Ano97b]. virial [KS11].
virtual [XJM08]. viscous
[BLA05, VGZB09]. Vlasov [VT91]. Vol
[Bat03]. volume [NT09]. Volumetric
[ZK1+07, HW10]. Vortex
[BCH93, CK00, DD95, RR05, WSW+95,
aY97, BLA05, CWD08, ECL02, HM95,
Ros06, RS94, WSWL05, AG88].
vortex-in-cell [CWD08]. voxel [Ham11].

[WA] [MD12]. WA [LCK11]. Waals
[DKG92b]. Washington [IEE94a, IEE94c].
water [BAL91, HIKP09]. wave
[BSL09, Bes00, BGGC06, CCZ07, CCKL09,
CHJN03, CRW93, ESR01, ESM98, GLS06,
LC94, MD98, Tak14, TCW08, TC09].

Wavelet
[HKS05, BP03, RŠŽ09, XWT09, XTH09].
wavelet-BEM [XTH09]. Wavelets
[A+97, CM06, Tau03a]. WAVES [CHJN03].
weak [DM07, DM12]. well [Eng11].
well-separated [Eng11]. wFMM [CC12].
Who [Wil00]. wide [KMC09]. wideband
[CCG+06a, CCG+06b, NT09, CC10, CC12].
Wigner [Dac06]. WINE [FMI+93].
WINE1 [FMI+93]. Winter [ERT12].
Wire [CSMCxx]. without
[ADG96, And92, HP95, Mak99, Pel98].
Wood [ON09a]. Worcester [BR03]. work
[BADP96, DT96, Rei99]. work- [BADP96].
Workshop [ERT12, HM86, AG88].
workstations [LJ98]. World [We91].
WOTUG [We91]. Would [Wil00].

X [Ful97]. X10 [MRH14]. x86
[TY012, TY012]. x86_64 [NMH06]. XV
[BR93]. XXVI [Bre04].

Yamakawa [LGG+13]. York
[IEE90, IEE90, IEE96b]. Yukawa
[BFO99, HJZ09, ZHPS10].

zero [ZC00]. Zonal [BD07].

References

Ainsworth:1997:WMM

[A+97] M. Ainsworth et al., editors. Wavelets, multilevel methods and elliptic PDEs, Numerical mathematics and scientific computation. Oxford University Press, Walton Street, Ox-


ACM:1997:SHP


Antonuccio-Delogu:1994:PTB


Antonuccio-Delogu:1999:PTA

REFERENCES

ISSN 0302-9743 (print), 1611-3349 (electronic).

Adamson:1996:CCT

Anandakrishnan:2011:GBA

Anderson:1988:VMP

Aluru:1998:DIH

Ambrosiano:1988:FMM

Ambrosiano:1988:GPS
Allen:1993:GIM


Aluru:1994:DIH


Aluru:1996:GBA


Amisaki:2000:PEE


Anderson:1992:IFM


Anderson:1999:TDS


Andjelic:2008:BON


Anonymous:1990:RUM

[And90] Anonymous. Renewing U.S. mathematics: a plan for the 1990s. Appendix B: Recent research accomplishments and
REFERENCES


Anonymous:1994:TDA


Anonymous:1995:ECP


Anonymous:1995:PAC

REFERENCES


Anonymous:1996:PAC


Anonymous:1997:PAC


Anonymous:1997:RSA


Anandakrishnan:2010:ABN


Amini:1999:ADF


Amini:2000:ATE

REFERENCES

on Computational and Applied Mathematics, ICCAM-98 (Leuven).

Amini:2003:MLF


Aluru:1994:TDI


Appel:1985:EPM


Alpert:1991:FAE


Allen:1987:CSL


Atkinson:1997:NSB


Amisaki:2003:DHA

Takashi Amisaki, Shinjiro Toyoda, Hiroh Miyagawa, and Kunihiro Kitamura. Development of hardware accelerator

**Araujo:2012:SLS**


**Ying:1997:VM**


**Bailey:1995:PSS**


**Becciani:1997:PTC**


**Becciani:2001:YRF**


**Becciani:2000:MPT**

REFERENCES


Becciani:1996:WDS


Bagla:2002:TCC


Belhadj:1991:MDS


Barnes:1986:USS


Barnes:1990:MTC


Bathe:2003:CFS


Berger:1987:PSN


Becciani:2006:FMP

REFERENCES


Beylkin:2008:FAA


Beatson:2001:FER


Bachelot:2003:CFM


Bachelot:2003:CMF


Bowers:2007:ZMP


Bebendorf:2006:AIP

REFERENCES


of 1996, from the 8th to the 19th of July.

Bunse-Gerstner:2006:PGC


Bakk
er:1990:SPC


Baldini:1999:HPC


Bischof:2005:DPC


Broeckx:2000:PIC


Barnes:1986:HFC

J. E. Barnes and P. Hut. A hierarchical $O(N \log N)$ force-calculation algorithm. *Nature*, 324(6270):446–449, ????. 1986. CODEN NATUAS. ISSN 0028-0836 (print), 1476-4687 (electronic). This paper appears to be the origin of fast multipole algorithms; its $O(N \log N)$ complexity was later improved to $O(N)$ [GR87]. See also
[App85], which might predate this work.

[Bouchet:1988:CSU]

[Barnes:1989:EAT]

[Bordner:2003:BES]

[Bhatt:1997:PAR]

[Board:1994:SIM]

[Board:1994:SVM]

[Buchau:2004:FMB]


[BL97] R. K. Beatson and W. A. Light. Fast evaluation of radial basis functions: methods for two-dimensional poly-

**Bokanowski:1998:FMM**


**Bokanowski:2005:FMM**


**Barba:2005:AVV**


**Brunet:1993:HAD**


**Blelloch:1997:PCB**

REFERENCES


REFERENCES


**Buchholtz:1993:VAM**


**Bohme:2003:FAF**


**Brooks:1985:SEE**


**Beatson:2007:FEP**


**Benson:2014:PDF**


**Brebbia:1993:BEX**

REFERENCES


REFERENCES

**Bindiganavale:1996:GUFb**


**Bindiganavale:1996:GUFa**


**Bindiganavale:1996:DNR**


**Bharadwaj:1995:FMB**


**Chadwick:2009:HSP**


**Carpentieri:2006:MFT**


**Carpentieri:2007:PAP**

Carpentieri:2009:APF


Cruz:2009:CAF


Chaillat:2014:NFM


Cherrie:2002:FER


Carayol:2004:EEF


Carayol:2005:EEF


Cho:2010:WFM

References

Cho:2012:RWW

Chen:2013:APM

Cheng:2006:WFM

Chen:2009:ADI

Chen:1997:FMM
Y. H. Chen, W. C. Chew, and S. Zeroug. Fast multipole method as an efficient...

**Cecka:2013:FBF**


**Crowley:1997:AIS**


**Chartier:2010:RFC**


**Chartier:2005:RFC**

Cai:2007:EFM


Capuzzo-Dolcetta:1998:CBF


Cichocki:1989:EIP


Chandrasekaran:2004:DCA

REFERENCES

[0029-599X (print), 0945-3245 (electronic).


[CKB00] Cottet:2000:VMT


[CKE08] Cruz:2011:FMM

REFERENCES


REFERENCES

Cipriani:1982:CEE


Chen:1998:FEV


Chen:1998:UFM


Challacombe:1995:RRC


Chao:19xx:MFM


Clark:1994:PMD

REFERENCES


REFERENCES

Darve:2000:FMMa

Darve:2000:FMMb

Darrigrand:2002:CFM

Deng:2007:EFM

Darvas:2006:NMA

Draghicescu:1995:FA

Darbas:2013:CAP
Dehnen:2002:HFC


Demmel:1995:FHM


Demmel:1996:FHMa


Demmel:1996:FHMb


Dutt:1996:FAP


Dejonge:1986:USS


Darve:2004:EFM


Darve:2004:FMM

Dorband:2003:SHS


Debolt:1993:AMP


Ding:1992:ALSb


Dubinski:2004:GPH

REFERENCES


Dombroski:1996:KCE


Dubinski:1996:PTC


Dembart:1998:AFM


Darden:1993:PME


Elliott:1994:FFT


Elliott:1996:FFT


Eldredge:2002:VPM


Eichinger:1997:FAR


Ebisuzaki:1992:GSP


Engheta:1992:FMM


Edelman:1999:FFF


Engblom:2011:WSS


Ergul:2011:SLS


Engquist:2012:NAM

REFERENCES


REFERENCES


REFERENCES


Gumerov:2003:RCM


Gumerov:2005:CSC


Gumerov:2006:FMM


Gumerov:2007:FRB


Gumerov:2007:SPF


Gumerov:2008:FMM


Gumerov:2009:BFM


Garcia:2008:ISE

[Eliseo García, Carlos Delgado, Iván González Diego, and Manuel Felipe Cátedra. ]


REFERENCES


References


Gerchikov:1998:EMP


Greengard:2004:IEM


Grama:1996:SPF


Greengard:1996:IEM


Grama:1998:SPF

REFERENCES


REFERENCES

Glosli:1993:FMM


Grytsenko:2008:ACA


Greengard:1987:FAP


Greengard:1988:REPb


Greengard:1988:EIF


Greengard:1997:NVF


Gimbutas:2002:GFM


Greengard:1987:REP

REFERENCES

Haven, CT, USA, 1987. ???? pp. This thesis won an ACM Distinguished Dissertation Award, and was later published as a book [Gre88].


REFERENCES


<table>
<thead>
<tr>
<th>Reference</th>
<th>Title</th>
</tr>
</thead>
</table>
| [Gus98]    | I. I. Guseinov. Analytical evaluation of molecular electric and magnetic multipole...


REFERENCES


REFERENCES

Spring Street, Suite 300, Silver Spring, MD 20910, USA, 1998.

Hu:2011:SFM


Heller:1990:MDS


Handley:2009:OCF


Hu:1996:DPI


Huang:2009:FYA


Harbrecht:2005:WGB


He:2008:FES

REFERENCES

5981 (print), 1097-0207 (electronic).


REFERENCES

Hamilton:1995:FMM
L. R. Hamilton, J. J. Ot-tusch, M. A. Stalzer, and R. S. Turley. The fast multipole method for large 2nd scatter-
ers (invited paper). In Anony-

[HST95] mous [Ano95b], pages 606–613.

Hendrickson:1995:PMB
Bruce Hendrickson and Steve Plimpton. Parallel many-

[HP95] body simulations without all-
to-all communication. Jour-

[HSA91] nal of Parallel and Dis-

[HS08] tributed Computing, 27(1):15–

25, May 1995. CODEN JPD-

CER. ISSN 0743-7315 (print),

1096-0848 (electronic). URL
http://www.idealibrary.
com/links/doi/10.1006/jpdc.

[HSA91] 1995.1068/production;

http://www.idealibrary.
com/links/doi/10.1006/jpdc.


Hrycak:1998:IFM
Tomasz Hrycak and Vladimir Rokhlin. An improved fast mul-

[HR98] tipole algorithm for po-

tential fields. SIAM Jour-

[HTA+97] nal on Scientific Computing,


[HTA+97] DEN SJOCE3. ISSN 1064-

8275 (print), 1095-7197 (elec-

[HS95] tronic).

Holt:1995:HBM
Chris Holt and Jaswinder Pal Singh. Hierarchical n-body

methods on shared address

space multiprocessors. In Bai-

ley et al. [B+95], pages 313–


Hanninen:2008:EER
Ilari H¨ anninen and Jukka Sar-

[HS08] vas. Efficient evaluation of the

Rokhlin translator in multi-

level fast multipole algorithm. IEEE Transactions on Anten-

nas and Propagation, 56(8, part 1):2356–2362, 2008. CO-

DEN IETPAK. ISSN 0018-

926x (print), 1558-2221 (elec-

[HTA+97] tronic).

Hanrahan:1991:RHR
Pat Hanrahan, David Salz-

[HTA+97] man, and Larry Aupperle. A rapid hierarchical radios-


[HTA+97] 1991. CODEN CGRADI,

[HTA+97] CPGPBZ. ISSN 0097-

8930 (print), 1558-4569 (elec-


proceedings/graph/122718/

p197-hanrahan/.

Heath:1997:PES
Michael Heath, Virginia Tor-

czon, Greg Astfalk, Pet-

er E. Bjørstad, Alan H. Karp, Charles H. Koelbel, Vipin Kumar, Robert F. Lu-

cas, Layne T. Watson, and

[HTA+97] David E. Womble, editors. Proceedings of the Eighth SIAM Conference on Parallel Processing for Scientific Com-

Ho:2002:SBP


Hoyler:1997:FMM


Hesford:2010:FMM


Hesford:2011:RRA


Yao:2008:IFM


Ichiki:2002:ISD

[Ich02] Kengo Ichiki. Improvement of the Stokesian dynamics method for systems with a finite number of particles. Journal of Fluid Mechanics,
IEEE:1990:PSN


IEEE:1992:PSM


IEEE:1992:ASF


IEEE:1993:PSP


IEEE:1994:IAP

REFERENCES


IEEE:1996:PSM


IEEE:1997:IAP


IEEE:1998:FIC


IEEE:2002:STI


Ishiyama:2009:GMP


Izaguirre:2005:PMS

REFERENCES


Byoungseon Jeon, Joel D. Kress, Lee A. Collins, and

Jandhyala:1998:CSD


Jandhyala:1997:HFS


Jernigan:1989:TCL


Kaxiras:1996:MTS


Kutteh:1995:GFM


Kutteh:1996:RCG


**Kantardjieff:2015:SNU**


**Karin:1995:PAI**


**Katzenelson:1989:CSB**


**Kybic:2005:FMA**


**Kawai:1999:MAB**

Atsushi Kawai, Toshiyuki Fukushige, and Junichiro Makino. $7.3$/Mflops astrophysical $N$-body simulation with treecode on GRAPE-5. In ACM [ACM99], page ??

**Kawai:2000:GSP**


**KFM99**

Atsushi Kawai, Toshiyuki Fukushige, and Junichiro Makino. $7.3$/Mflops astrophysical $N$-body simulation with treecode on GRAPE-5. In ACM [ACM99], page ??

**KFMT00**

REFERENCES

52(??):659–676, August 2000. CODEN PASJAC. ISSN 0004-6264.


[KMC09] Wolfgang Kreuzer, Piotr Ma-

**Kokubo:1994:HSP**


**Kutteh:1995:ICM**


**Kondratyev:1993:MME**


**Kurzak:2005:COF**


**Kurzak:2005:MPI**


**Kurzak:2008:MPI**

REFERENCES

Kropinski:1999:IEM

Kropinski:2000:ENM

Kropinski:2002:NMM

Kudin:1998:FMA

Kudin:1998:FMM

Kudin:2004:RIL

Kim:2011:CSV
REFERENCES


**Lu:1993:FAS**


**Lu:1994:MAS**


**Liska:2014:PFM**


**Lu:2010:AAF**

Benzhuo Lu, Xiaolin Cheng, Jingfang Huang, and J. Andrew McCammon. AFMPB: An adaptive fast multipole

**Letourneau:2014:CFM**


**Leimkuhler:2006:NAM**


Lu:2013:AAF


Lathrop:2011:SPI


Lashuk:2012:MPA


Lu:2007:NVF


Lustig:1993:FMM


Lim:2008:FFT


LHL08

Lin:2008:FMB


Liu:2009:FMB

Liu:2008:FMB

Lim:2008:FFT

[102x491]


LHL08


Linton:1995:MMB


Lu:1996:AFMa


Lu:1996:AFMb


Liu:1994:PIB


Liu:2008:FMB


Liu:2009:FMB

REFERENCES


REFERENCES

[Langer:2007:IDS]

[Langer:2007:IFM]

[Ly:1999:SPD]

[Lambin:1993:ESM]

[Lus95]

[LS05]

[Lu:1996:AFA]
REFERENCES


REFERENCES


Margonari:2005:FMM [MBS15]

Marchetti:1997:ICB [MBA97]

Makino:2000:LEF [MBS+00]

Mehl:2015:RTC [MBS15]

Mandel:1992:SIM [MC92]
REFERENCES


Marzouk:2005:MCO


Malas:2007:IPM


Malas:2009:AMF


Malas:2011:SCP

Tahir Malas and Levent Gurel. Schur comple-

McKenney:1995:FPS


Makino:2007:GDP

REFERENCES

1. URL arnumber=5348841; http://ieeexplore.ieee.org/stamp/stamp.jsp?tp=&amp;

MacDonald:1995:FSM

Macdonald:1996:FSM

Makino:1990:GSP

Miller:2008:IBP

Makino:2001:PET

Makino:2002:TSP

McCurdy:1999:ECP
Collin McCurdy and John Mellor-Crummey. An evaluation of computing paradigms for N-body simulations on distributed memory architec-
REFERENCES


Moric2006:FMM


McKenney1996:MDS


Martinsson2007:AKI


Milthorpe2014:PFI


Mehrotra1992:USC


Makino1995:ABS

ber 415952) and IEEE (IEEE Computer Society Press order number FW07435).

Makino:1998:SSS

Makino:1994:GOT

Nishida:1997:AFM

Nilsson:2004:SHF

Nakano:1994:MMD

Najm:1999:CLE

Nitadori:2006:PTB
scheme on x86_64 architecture. New Astronomy, 12(??): 169–181, December 2006. CODEN NEASFS. ISSN 1384-1076 (print), 1384-1092 (electronic).


REFERENCES

Ohnuki:2003:TEA


Ohnuki:2005:EMM


Ogata:2003:SPI


Of:2007:FMM


Of:2008:EAM


Ooi:2008:HFM


Osei-Kuffuor:2014:SAL

REFERENCES

Of:2009:FMB


Okunbor:1996:IMB


Ong:2004:FFT


Ong:2003:FA


Olyslager:2008:FMM


Okumura:1992:GHP


Ohno:1994:DSP

REFERENCES


[ON08b]


[ON08a]


[ON09a]


[OP07]


[OR89]


Mohammad Poursina and Kurt S. Anderson. An improved fast multipole method for electrostatic potential calculations in a class of coarse-
REFERENCES


**Pan:1992:CCM** [Pan92]


**Panas:1995:PET** [Pan95]


**Park:1989:BBT** [PD89]


**Pouransari:2015:OAF** [PD15]


**Pellegrini:1998:EFS** [Pel98]


The author compares his methods against fast multipole methods for point-to-volume integrals.

**Pereira:1999:PBI** [Per99]


**Pfalzner:1994:HTC** [PG94]

Susanne Pfalzner and Paul Gibbon. A 3D hierarchical tree code for dense
References


**Pfalzner:1996:MBT**


**Pollock:1996:CPF**


**Papa:2005:CMD**


**Pierce:2015:DLB**


**Piecuch:1993:MSC**


**Perez-Jorda:1995:SAR**

Perez-Jorda:1996:CRS


Peirce:1995:SMM


Pluta:1994:DHE


Pringle:1994:NST


Pruett:2003:ABA


Pan:1992:PCT


Potts:2004:FCR

Daniel Potts, Gabriele Steidl, and Arthur Nieslony. Fast

**Petersen:1994:VFM**


**Petersen:1994:VFM**


**Petersen:1995:EEFa**


**Petersen:1995:EEFb**


**Pudlak:2016:LTC**


**Rahola:1996:DFT**


**Rajamon:1997:PDS**
Rui:2007:STS


Reif:1999:ACP


Razavi:2012:ALS


Rodin:2004:PCP


Rodrigue:1989:PPS


Rokhlin:1985:RSI


Rokhlin:1990:RSI

[Rok90] Vladimir Rokhlin. Rapid solution of integral equa-


REFERENCES

Rudberg:2006:EIF


Renegar:1996:MNA


Ravnik:2009:CBW


Rodriguez:2008:USV


Ringbom:1996:FSG


Rokhlin:1994:FMM

REFERENCES


REFERENCES

**Schmitt:1994:CDF**


**Sugimoto:1990:SPC**


**Sendur:1997:SRP**


**Sabariego:2004:AFM**


**Shanker:2007:ACE**


**Sharp:2006:BSP**

REFERENCES


Singer:1995:PIF


Suda:2004:APA


Skeel:1989:MDS


Solvason:1995:RCE


Shimada:1993:ECC


Shimada:1994:PFM


Schmidt:1991:IFM

K. E. Schmidt and Michael A. Lee. Implementing the Fast
REFERENCES


Balasubramaniam Shanker and Eric Michielssen. Oblique scattering from an inhom-

**Simos:2005:ACM**


**Shanker:1997:SIC**


**Solvason:1997:EEF**


**Sidonio:1999:PBI**


**Sun:2001:MVF**


**Springel:2005:CSC**


**Scherbinin:1996:UME**


**Speck:2012:MST**


**Sagui:2006:NDM**


**Saad:1989:DCH**


**Schanz:2007:BEA**


**Strain:1996:ALS**


**Suda:2002:FSH**


**Schwab:2006:KLA**

[Christoph Schwab and Radu Alexandru Todor. Karhunen–Loève


REFERENCES

Salmon:1994:FPT

Schwichtenberg:1999:AMM

Sylvand:2003:CIC

Takahashi:2014:IBF

Tausch:2003:SBP

Tausch:2003:FMM

Tausch:2004:VOF
J. Tausch. The variable order fast multipole method

Tong:2009:MFM

Tong:2008:MFM

Tranouez:2009:BUF

Tromeur-Dervout:2011:PCF

Teng:1998:PGP
REFERENCES

Tornberg:2008:FMM


Totoo:2014:PHI


Taiji:1994:GTM


Tausch:2003:MBS


Tang:2006:HOP


Tanikawa:2012:PGN

[TYNO12] A. Tanikawa, K. Yoshikawa, K. Nitadori, and T. Okamoto. Phantom-GRAPE: numerical software library to accelerate collisionless N-body simulation with SIMD instruction set on x86 architec-
REFERENCES


REFERENCES


[Wagner:1994:RPF]

[Welch:1991:TPW]

[Wang:2008:FSM]


[White:1996:FTF]

[White:1996:RAQ]
Christopher A. White and Martin Head-Gordon. Rotating around the quartic angular momentum barrier in fast multipole method calculations. Journal of Chemical Physics, 105(12):5061–??,
Wilson:2000:PWW

Windemuth:1995:AAM

White:1996:CGF

[WL96]

[WL+07]
REFERENCES

Wang:1999:LSM
Zhiqiang Wang, James Lupo, Alan McKenney, and Ruth Pachter. Large scale molecular dynamics simulations with fast multipole implementations. In ACM [ACM99], page ??

Watanabe:2014:GAH

Waltz:2002:PCT

Windemuth:1991:MDC

Warren:1992:ANS

Warren:1993:PHO

Warren:1995:PPV
Michael S. Warren and John K. Salmon. A parallel, portable and versatile treecode. In Bailey


REFERENCES


REFERENCES

Xu:1995:NPB


Xue:1998:THT


Xiao:2009:FMV


Xu:2008:FMB


Yeung:1997:TNL


Yuan:2001:PIF


Yokota:2012:TSF

 REFERENCES

Yokota:2011:BEU

Yokota:2012:SFM

Yokota:2013:PTS

Ying:2004:KIA

Ying:2003:NPK

Yang:1998:STE
Tao Yang and Cong Fu. Space/time-efficient scheduling and execution of parallel irregular computations.
REFERENCES


REFERENCES


Zhang:2011:OBH


Zhang:2015:DMB


Zhao:2000:IES


Zhang:2000:SDC


Zhao:1998:TSM


Zinchenko:2005:MAA


Zheng:2016:AEA

REFERENCES


Zwart:2010:SUI


Zhang:2010:RFY


Zhang:2011:FSB


Zhao:1991:PMM


Zhou:2007:VFM


Zurek:1994:LSS

