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Abstract

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Title word cross-reference

1, 2, 3 [SMDS11]. 2 [YIM11, YBPH11].

-D [YIM11].

1.44 [LBKF11]. 10-petaflops [YWY+11].
100G [CL11]. '11 [ACM11].

2.0 [SAT+11]. 2011 [Hua11, LCK11].

abstraction [CHE11]. accelerated
[MNSM11]. acceleration
[VHMP11, WQY+11]. access [CSS11].

accurate [CHE11, KKO+11]. Adaptive
[JHN11, PLP+11]. Address [PWL+11].
Advanced [YWY+11]. aggregated
[HLD11]. AICS [YWY+11]. algebra
[SBD11]. algorithm [ZBS11]. algorithms
[BJLR11]. allocation [HM11, PSLJ11].
Amazon [ZLZ+11]. Analysis
[LCK11, BHK11, CS11, CHA+11]. analytics
[LJA+11]. application
[GIM+11, KKO+11, MH11]. Applications
[PWL+11, BFR11, CH11, IHIR11, NC11,
SK11, SSWC11, ZLZ+11, ZDJ11]. approach
[SVC+11]. architecture [BFR11, KD11].
architectures [HGD11, SSWC11]. archiver
[Car11]. array [BWL+11]. array-based
[BWL+11]. atmospheric [TAT+11].
Atomistic [LBKF11]. atoms
[HIT+11, MSZ+11]. Auto
[MH11, WOCS11]. Auto-scaling [MH11].
auto-tuning [WOCS11]. AutomadeD

[LGdS⁺11]. **automatic** [GJ11]. **Avoiding** [BJGK11]. **aware** [CH11, HLD11, PSLJ11, SBD11, VHMP11].

balancer [SK11]. **bandwidth** [BCK11]. **Barnes** [ZBS11]. **based** [BWL⁺11, DJP⁺11, KKO⁺11, SVC⁺11]. **batch** [KPB⁺11]. **Benchmark** [KGL⁺11]. **Best** [MSBM11]. **between** [RKHK11]. **beyond** [BCJ⁺11]. **biofluidics** [BBE⁺11]. **biomolecular** [MSZ⁺11]. **BlobCR** [NC11]. **blood** [GIM⁺11]. **Blue** [CEH⁺11, VHMP11]. **Boltzmann** [WOCS11]. **brain** [GIM⁺11]. **breadth** [BM11]. **breadth-first** [BM11]. **building** [DJP⁺11].

cache [FPRK11, SVC⁺11]. **cache-friendly** [SVC⁺11]. **caching** [FPRK11]. **calculations** [HIT⁺11, WWJ⁺11]. **capability** [Har11]. **car** [JHN11]. **catalog** [WMLB11]. **centers** [BC11]. **Challenges** [AFL⁺11, BC11]. **checkpoint** [NC11]. **checkpoint-restart** [NC11]. **Checkpointing** [BCR⁺11]. **class** [WR11]. **Cloud** [ZLZ⁺11, MH11, PSLJ11]. **clouds** [BRE11, LBZ⁺11, NC11]. **cluster** [HM11, KKO⁺11, ZLZ⁺11]. **clusters** [MSBM11, PG11, RKHK11, WWJ⁺11]. **co** [KDS⁺11, TPO⁺11]. **co-design** [KDS⁺11]. **co-designing** [TPO⁺11]. **code** [IJ11, MMK⁺11]. **codebase** [SSWC11]. **collectives** [SBD11]. **Communication** [PWL⁺11, SBD11]. **Community** [WMC⁺11]. **complex** [LPAZ11]. **compositing** [MKPH11]. **compressed** [LJA⁺11]. **Computational** [YWY⁺11, GIM⁺11, KPB⁺11, PJR⁺11]. **computations** [MNSM11]. **compute** [ZLZ⁺11]. **computer** [HIT⁺11]. **Computing** [LCK11, YWY⁺11, Ben11, BC11, GIC⁺11, HM11, LBZ⁺11, LCH⁺11]. **concurrent** [FPRK11]. **condensed** [HLD11]. **Conference** [LCK11]. **configuration** [BRE11]. **consumption**

[GBL⁺11]. **'cool** [SK11]. **cooling** [CEM11]. **coordination** [SYS⁺11]. **Copernicus** [PLP⁺11]. **copy** [IHIR11]. **core** [BBE⁺11, CHE11, IJ11, SVC⁺11, YIM11]. **correlated** [YIM11]. **cost** [LBZ⁺11, MH11]. **coupled** [KKO⁺11]. **CPU** [MMK⁺11]. **CudaDMA** [BCK11].

D [YIM11, YBPH11]. **data** [CH11, CHA⁺11, KPB⁺11, LJA⁺11, PSHI11, TSP⁺11, VHMP11]. **data-intensive** [CH11, KPB⁺11, TSP⁺11]. **database** [WMLB11]. **datacenters** [GBL⁺11]. **deadlines** [MH11]. **debugging** [LGdS⁺11]. **Deep** [Har11]. **Defense** [Ben11]. **dendritic** [SAT⁺11]. **dense** [NTDD11, SBD11]. **density** [WWJ⁺11, YIM11]. **Department** [Ben11]. **dependencies** [LFG⁺11]. **deployment** [MSBM11]. **design** [FHL⁺11, KDS⁺11, TSP⁺11, YIM11]. **designing** [TPO⁺11]. **detection** [CL11, PSHI11]. **device** [LBKF11]. **DGEMM** [TLT⁺11]. **direct** [BJGK11]. **disk** [NC11]. **display** [WUE⁺11]. **distance** [RKHK11]. **distributed** [BFR11, BM11, HGD11, PSHI11, WMLB11, WOCS11]. **domain** [DJP⁺11, KWA⁺11]. **driven** [LJA⁺11, MSZ⁺11]. **duality** [TSP⁺11]. **Dymaxion** [CSS11]. **dynamic** [FPRK11]. **dynamics** [PLP⁺11].

early [BHK11]. **Earth** [WMC⁺11, TAT⁺11]. **easy** [SMDS11]. **effective** [DEG⁺11]. **efficiency** [FHL⁺11]. **Efficient** [PSHI11, KDS⁺11, NC11]. **eigensolver** [YBPH11]. **eigenvalue** [HLD11]. **electricity** [LBZ⁺11]. **electron** [HIT⁺11]. **Enabling** [MSZ⁺11]. **End** [SKY11, ZDJ11]. **End-to-end** [SKY11]. **energy** [GBL⁺11, KDS⁺11, LPAZ11]. **energy-efficient** [KDS⁺11]. **engineering** [LBKF11]. **environments** [CH11, WUE⁺11]. **Eulerian** [IJ11]. **Evaluating** [FSL⁺11, ZLZ⁺11]. **evaluation**

[KPB⁺11]. **evaluations** [IJ11]. **event** [CS11]. **evolution** [NG11]. **exascale** [FSL⁺11, LCH⁺11]. **excited** [KKO⁺11]. **excited-state** [KKO⁺11]. **exploring** [CHE11]. **Extracting** [WOCS11]. **extreme** [LJA⁺11]. **extreme-scale** [LJA⁺11].

facilities [TPO⁺11]. **factorization** [BJLR11]. **failures** [HKG⁺11]. **Fast** [TLT⁺11, HGD11, NG11]. **fault** [BGTK⁺11]. **Fermi** [TLT⁺11]. **field** [SAT⁺11]. **file** [Car11, SYS⁺11, TSP⁺11, WR11]. **fine** [HLD11]. **fine-grained** [HLD11]. **First** [HIT⁺11, BM11]. **First-principles** [HIT⁺11]. **Flexible** [HM11, SKY11]. **floating** [DEG⁺11]. **floating-point** [DEG⁺11]. **flow** [GIM⁺11, JHN11]. **forms** [HLD11]. **framework** [GJ11]. **free** [YBPH11]. **frequency** [LFG⁺11]. **friendly** [SVC⁺11]. **FTI** [BGTK⁺11]. **full** [JHN11]. **functional** [WWJ⁺11]. **Fusion** [PWL⁺11].

GAMER [SSWC11]. **Gene** [CEH⁺11, VHMP11]. **Gene/P** [VHMP11]. **Gene/Q** [CEH⁺11]. **generation** [GJ11]. **genomic** [MBK11]. **Global** [PWL⁺11, TAT⁺11]. **GPU** [BCK11, MNSM11, MMK⁺11, TLT⁺11, WWJ⁺11]. **GPU-accelerated** [MNSM11]. **GPUs** [BCJ⁺11, NTDD11]. **grained** [HLD11]. **graph** [YBPH11]. **graphs** [YBPH11]. **green** [GBL⁺11]. **GreenSlot** [GBL⁺11]. **grids** [BRE11]. **GROPHECY** [MMK⁺11]. **group** [YIM11]. **GT5D** [IJ11]. **Gyrokinetic** [MIW⁺11, PWL⁺11, IJ11].

Hadoop [BWL⁺11, WQY⁺11]. **Hardware** [KDS⁺11]. **Hardware/software** [KDS⁺11]. **hashing** [GLJ11]. **HDFS** [TSP⁺11]. **heterogeneous** [CSS11, HKG⁺11, HGD11]. **hierarchical** [WOCS11]. **High** [FHL⁺11, LCK11, SVC⁺11, YWY⁺11, BGTK⁺11, Ben11, BC11, GIC⁺11, KKO⁺11, LBZ⁺11, WUE⁺11]. **High-efficiency** [FHL⁺11]. **high-level** [KKO⁺11].

High-Performance [YWY⁺11, SVC⁺11, BC11]. **high-resolution** [WUE⁺11]. **highest** [TAT⁺11]. **Highly** [MBK11]. **Hot** [CEM11, BJGK11]. **hot-spots** [BJGK11]. **house** [ZLZ⁺11]. **HPC** [AFL⁺11, BHK11, Har11, MIW⁺11, MSBM11, NC11, PG11, TPO⁺11]. **Hut** [ZBS11]. **hybrid** [BGTK⁺11, SVC⁺11].

I/O [FPRK11, KPB⁺11, SYS⁺11, VHMP11, ZDJ11]. **I/O-intensive** [ZDJ11]. **IaaS** [NC11]. **IBM** [CEH⁺11]. **identification** [MBK11]. **IH** [BHK11]. **image** [MKPH11, NC11]. **implementation** [TLT⁺11]. **implementations** [KKO⁺11]. **implications** [LCH⁺11]. **implicitly** [MNSM11]. **improve** [DEG⁺11]. **Improving** [SBD11]. **in-house** [ZLZ⁺11]. **index** [CHA⁺11]. **InfiniBand** [RKHK11]. **initio** [MBK11]. **instances** [ZLZ⁺11]. **Institute** [YWY⁺11, YWY⁺11]. **Integrating** [WUE⁺11]. **intensive** [CH11, IHIR11, KPB⁺11, TSP⁺11, ZDJ11]. **interconnection** [CEH⁺11, RKHK11]. **interface** [BGTK⁺11]. **interference** [CH11]. **interference-aware** [CH11]. **International** [LCK11]. **Intrusion** [CL11]. **ISABELA** [LJA⁺11]. **ISABELA-compressed** [LJA⁺11]. **ISABELA-QA** [LJA⁺11].

Janus [TPO⁺11]. **Japanese** [YWY⁺11]. **jobs** [BCR⁺11].

kernels [HLD11]. **Keynote** [Hua11].

language [DJP⁺11]. **LANL** [PG11]. **Large** [LGdS⁺11, WWJ⁺11, CHA⁺11, HKG⁺11, LFG⁺11, MNSM11, YBPH11]. **large-scale** [LFG⁺11, MNSM11]. **lattice** [BCJ⁺11, SVC⁺11, VSZ⁺11, WOCS11]. **leading** [MIW⁺11]. **level**

[BJGK11, CHE11, DEG⁺¹¹, KKO⁺¹¹].
levitated [WQY⁺¹¹]. **linear** [SBD11].
Liszt [DJP⁺¹¹]. **live** [HIR11]. **load** [SK11].
locality [PSLJ11]. **locality-aware**
[PSLJ11]. **log** [Car11]. **logging** [CS11].
LOGJAM [Car11]. **long** [RKHK11].
long-distance [RKHK11]. **look** [BFR11].
look-up [BFR11]. **LSST** [WMLB11].

machine [LBZ⁺¹¹]. **machines** [MSZ⁺¹¹].
MAMPO [GJ11]. **management**
[BC11, FPRK11, MSBM11]. **manycore**
[MIW⁺¹¹]. **MapReduce** [BFR11, PSLJ11].
massively [IJ11, SSWC11]. **matrix**
[NTDD11, YIM11]. **matrix-vector**
[NTDD11]. **MAximum** [GJ11]. **measure**
[KGL⁺¹¹, Kra11, LFG⁺¹¹]. **meet** [MH11].
memory [BCK11, BM11, CSS11, GLJ11,
HLD11, IHIR11, LCH⁺¹¹, PSHI11, WR11].
memory-aware [HLD11]. **merge**
[WQY⁺¹¹]. **mesh** [DJP⁺¹¹]. **mesh-based**
[DJP⁺¹¹]. **message** [CEH⁺¹¹, MSZ⁺¹¹].
message-driven [MSZ⁺¹¹]. **methods**
[HGD11, KKO⁺¹¹]. **metrics** [Har11].
migration [HIR11]. **million**
[BBE⁺¹¹, MSZ⁺¹¹]. **million-core**
[BBE⁺¹¹]. **minimize** [MH11]. **mining**
[BFR11]. **model**
[JHN11, MNSM11, TAT⁺¹¹, WMC⁺¹¹].
Modeling
[HKG⁺¹¹, HGKS11, KDS⁺¹¹, NG11].
modernization [Ben11]. **molecular**
[PLP⁺¹¹]. **monitoring**
[AFL⁺¹¹, Ben11, DEG⁺¹¹]. **motif** [MBK11].
movement [VHMP11]. **MPI**
[SVC⁺¹¹, ZLZ⁺¹¹]. **Multi**
[SSWC11, CHE11, IJ11, MIW⁺¹¹, SVC⁺¹¹,
WUE⁺¹¹, YIM11]. **multi-** [MIW⁺¹¹].
multi-core [CHE11, IJ11, SVC⁺¹¹, YIM11].
Multi-science [SSWC11]. **multi-touch**
[WUE⁺¹¹]. **Multicore** [GJ11, MSZ⁺¹¹].
multicore-optimized [MSZ⁺¹¹].
multiplication [NTDD11]. **multipole**
[HGD11]. **multiscale** [GIM⁺¹¹, VSZ⁺¹¹].

Multithreaded [PWL⁺¹¹, GJ11].

nanoelectronic [LBKF11]. **nanowire**
[HIT⁺¹¹]. **National** [YWY⁺¹¹]. **network**
[CEH⁺¹¹, SKY11, WQY⁺¹¹]. **Networking**
[LCK11]. **networks** [BJGK11]. **nothing**
[WMLB11]. **November** [LCK11]. **numbers**
[SMDS11]. **NWSC** [KGL⁺¹¹].

O [FPRK11, KPB⁺¹¹, SYS⁺¹¹, VHMP11].
O-intensive [ZDJ11]. **One** [GIC⁺¹¹].
operational [PG11]. **optimization**
[LPAZ11]. **Optimized** [HIR11, MSZ⁺¹¹].
Optimizing
[NTDD11, ZBS11, BCK11, CSS11].
organizational [BC11].

P [VHMP11]. **paradigm**
[GIM⁺¹¹, PLP⁺¹¹]. **Parallel**
[BM11, CHA⁺¹¹, HLD11, SMDS11,
BCR⁺¹¹, CHE11, HKG⁺¹¹, IJ11, KWA⁺¹¹,
LGdS⁺¹¹, MNSM11, PSHI11, PLP⁺¹¹,
SK11, SSWC11, SVC⁺¹¹, SYS⁺¹¹].
Parallelization [YIM11]. **partitioning**
[YBPH11]. **past** [JHN11]. **patterns** [CSS11].
PDE [DJP⁺¹¹]. **software** [KDS⁺¹¹].
Performance [HGKS11, IJ11, LCK11,
WMC⁺¹¹, YWY⁺¹¹, BHK11, BGTK⁺¹¹,
Ben11, BC11, DEG⁺¹¹, GIC⁺¹¹, KGL⁺¹¹,
Kra11, LBZ⁺¹¹, MMK⁺¹¹, PG11, SVC⁺¹¹,
SBD11, TAT⁺¹¹, WOCS11]. **performances**
[LBKF11]. **perspective** [BC11]. **Peta**
[SAT⁺¹¹]. **Peta-scale** [SAT⁺¹¹]. **Petaflop**
[BBE⁺¹¹]. **petaflops** [YWY⁺¹¹]. **petascale**
[MSZ⁺¹¹]. **PFlop** [LBKF11]. **PFlop/s**
[LBKF11]. **phase** [SAT⁺¹¹]. **phase-field**
[SAT⁺¹¹]. **phenomena** [VSZ⁺¹¹]. **Physis**
[MNSM11]. **placement** [LBZ⁺¹¹]. **plane**
[WWJ⁺¹¹]. **Platforms**
[PWL⁺¹¹, IJ11, YIM11]. **point** [DEG⁺¹¹].
populations [NG11]. **porphyrin**
[KKO⁺¹¹]. **porphyrin-based** [KKO⁺¹¹].
portable [DJP⁺¹¹]. **POwer** [GJ11].
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[BHK11]. **Practice** [ACM11, PJR⁺11]. **practices** [MSBM11]. **pre** [HIR11]. **pre-copy** [HIR11]. **principles** [HIT⁺11]. **problems** [HLD11]. **Proceedings** [LCK11]. **process** [FSL⁺11]. **processing** [BWL⁺11]. **production** [MSBM11, RKHK11]. **program** [Ben11]. **programming** [MNSM11]. **programs** [PSHI11]. **project** [Har11, KD11]. **projection** [MMK⁺11]. **pseudopotential** [WWJ⁺11]. **Purlieus** [PSLJ11]. **PVFS** [TSP⁺11].

Q [CEH⁺11]. **QA** [LJA⁺11]. **QCD** [BCJ⁺11, SVC⁺11]. **QoS** [SKY11, ZDJ11]. **QR** [BJLR11]. **Qserv** [WMLB11]. **quantum** [VSZ⁺11, YIM11]. **qubit** [VSZ⁺11]. **queries** [KPB⁺11]. **query** [BWL⁺11, CHA⁺11, LJA⁺11]. **query-driven** [LJA⁺11].

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s [LBKF11]. **SC'11** [LCK11]. **Scalable** [GLJ11, HGD11, KKO⁺11, LPAZ11, BRE11, Car11, CHE11, MBK11, YBPH11]. **Scale** [PWL⁺11, CHA⁺11, LGdS⁺11, LJA⁺11, LFG⁺11, MNSM11, MKPH11, SAT⁺11, WWJ⁺11, WOCS11, YBPH11]. **scale-free** [YBPH11]. **Scaling** [BCJ⁺11, MH11, MSZ⁺11]. **scheduling** [CH11, GBL⁺11, SKY11]. **Science** [YWY⁺11, PJR⁺11, SSWC11]. **scientific** [KGL⁺11, LJA⁺11]. **SciHadoop** [BWL⁺11].

SCMFS [WR11]. **search** [BM11]. **Seattle** [LCK11]. **seismic** [KDS⁺11]. **semantic** [BRE11]. **Server** [SYS⁺11, FHL⁺11]. **Server-side** [SYS⁺11]. **service** [BRE11]. **shared** [GLJ11, WMLB11, ZDJ11]. **shared-nothing** [WMLB11]. **side** [SYS⁺11]. **silicon** [HIT⁺11]. **similarity** [LFG⁺11]. **Simplified** [KWA⁺11]. **simulation** [CHE11, JHN11, SAT⁺11]. **simulations** [BBE⁺11, GIM⁺11, MIW⁺11, MSZ⁺11, VSZ⁺11]. **Simulator** [TAT⁺11]. **single** [SSWC11]. **skeletons** [MMK⁺11]. **snapshots** [NC11]. **Sniper** [CHE11]. **SNL** [GIC⁺11]. **solidification** [SAT⁺11]. **solution** [MKPH11]. **solver** [NG11]. **solvers** [DJP⁺11]. **Space** [PWL⁺11]. **specialization** [BCK11]. **specific** [DJP⁺11]. **SPOTlight** [PG11]. **spots** [BJGK11]. **stability** [PG11]. **staging** [VHMP11]. **State** [ACM11, KKO⁺11]. **states** [HIT⁺11]. **stencil** [MNSM11]. **stochastic** [LPAZ11]. **stop** [GIC⁺11]. **Storage** [LCK11, FPRK11, WR11, ZDJ11]. **strategies** [BCR⁺11]. **streaming** [KPB⁺11]. **strongly** [YIM11]. **strongly-correlated** [YIM11]. **Suite** [KGL⁺11]. **supercomputer** [KGL⁺11, SAT⁺11, YWY⁺11]. **supercomputers** [GLJ11, MNSM11]. **supercomputing** [VHMP11]. **support** [GIC⁺11, ZDJ11]. **survey** [PJR⁺11]. **Sustained** [Ben11, Kra11, LBKF11]. **symmetric** [HLD11, NTDD11]. **synthetic** [GJ11]. **System** [DEG⁺11, LCH⁺11, WMC⁺11, BBE⁺11, TSP⁺11, WR11]. **System-level** [DEG⁺11]. **systematic** [HGKS11]. **systems** [BHK11, BGTK⁺11, Ben11, BM11, CSS11, FSL⁺11, GJ11, HM11, HKG⁺11, KKO⁺11, LPAZ11, MIW⁺11, SVC⁺11, SYS⁺11, TPO⁺11, VHMP11, YIM11, ZDJ11].

tasks [LGdS⁺11]. **Techniques** [PWL⁺11]. **technology** [KD11]. **testing** [PG11]. **text**

[BFR11]. **theories** [KKO⁺11]. **theory** [WWJ⁺11]. **threaded** [SVC⁺11]. **threaded-MPI** [SVC⁺11]. **throughput** [KGL⁺11]. **Tiled** [BJLR11]. **time** [LFG⁺11]. **tolerance** [BGTK⁺11]. **tolerating** [HKG⁺11]. **toolkit** [CS11]. **TOP500** [KD11]. **Topology** [VHMP11, SBD11]. **Topology-aware** [VHMP11]. **toroidal** [MIW⁺11]. **touch** [WUE⁺11]. **trace** [KD11]. **TRACON** [CH11]. **traversal** [KWA⁺11]. **trends** [KD11]. **TSUBAME** [SAT⁺11]. **tuning** [HGKS11, WOCS11]. **turbulence** [KPB⁺11, VSZ⁺11]. **turbulent** [JHN11]. **two** [BBE⁺11, BJGK11, RKHK11]. **two-level** [BJGK11].

U.S. [Ben11]. **Ultra** [PWL⁺11, WOCS11]. **Ultra-Scale** [PWL⁺11, WOCS11]. **unified** [Car11]. **unit** [CEH⁺11]. **Unitary** [VSZ⁺11]. **UPC** [ZBS11]. **usage** [Har11]. **use** [RKHK11]. **useful** [Kra11]. **user** [GIC⁺11]. **users** [ZDJ11]. **Using** [KD11, BFR11, HLD11, KGL⁺11, NC11, SVC⁺11, YBPH11, ZDJ11]. **utilization** [DEG⁺11].

vector [NTDD11]. **versus** [ZLZ⁺11]. **via** [BCK11, SKY11, SBD11, WOCS11]. **viability** [FSL⁺11]. **Virtual** [FPRK11, HM11, LBZ⁺11, NC11]. **virtualized** [CH11]. **virus** [GJ11, NG11].

WA [LCK11]. **Wallaby** [BRE11]. **warm** [CEM11]. **warp** [BCK11]. **water** [CEM11]. **wave** [WWJ⁺11]. **wide** [Har11]. **workflows** [MH11]. **workloads** [FPRK11, LFG⁺11]. **World** [TAT⁺11]. **World-highest** [TAT⁺11].

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