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Abstract

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Title word cross-reference

1 [TPKP12]. 3 [NSM12]. *N* [INM12, MD12, SRK+12, MCD+12].

-body [INM12, MD12, SRK+12]. **-D** [NSM12, TPKP12]. **-point** [MCD+12].

100Gbps [HSH+12]. **'12** [Hol12].

2.0 [NSM12]. **20.5Gflops** [MD12]. **20.5Gflops/W** [MD12]. **2012** [Hol12].

500km [HSH+12].

8 [MD12].

Accelerating [CHA12]. **acceleration** [KVC+12]. **accelerator** [MD12]. **adaptive** [BGI+12, LYC+12, PBA12]. **adjoint** [RMNM+12]. **advances** [HPS+12]. **advection** [NLL+12]. **aggregation** [IMB+12, KVC+12]. **algebra** [GGDS+12]. **algebraic** [SBB+12]. **algorithm** [AML+12, KGPH12, PPA+12]. **algorithms** [DRL12]. **alignment** [KGPH12]. **Alleviating** [RFD+12]. **AMR** [WLX+12]. **Analysis** [Hol12, BAB+12, BCR+12, CS12, KVR12, LLG12, TW12, ZKW+12]. **analytics** [JSL+12, KN12]. **analyze** [BGI+12]. **aperture** [PTS+12]. **Application** [CKWC12, DFB+12, ET12, LSG12, NA12, SZM+12]. **application-aware** [ET12]. **applications** [BGL+12, BGI+12, CS12, KMHK12, LVY12a,

ME12, NCB+12, RLY+12, SBG+12]. **applied** [AML+12]. **approach** [KN12, LSG12]. **approximate** [KGPH12]. **architecture** [CHA12, PWD+12]. **architectures** [RMNM+12]. **archive** [AMF+12]. **area** [HSH+12, RLY+12]. **arrhythmias** [MRG+12]. **Aspen** [SV12]. **astronomical** [MCD+12]. **astrophysical** [INM12]. **ATLAS** [KVR12]. **auto** [JTD+12]. **auto-tuning** [JTD+12]. **automated** [LLG12]. **Automatic** [PCR12]. **avoiding** [GGDS+12, LBDS12]. **aware** [ET12, FMR12, IMB+12, SPK+12, WHT+12].

background [GSS12]. **backprojection** [PTS+12]. **backprojection-based** [PTS+12]. **balancing** [AML+12]. **Bamboo** [NCB+12]. **barriers** [CPW+12]. **based** [CXB+12, FBR+12, IRJ+12, LV12, PTS+12, RBAC12, WLX+12]. **Bayesian** [BTBG+12, DKC12, NA12]. **behavior** [AMF+12, LLG12]. **benchmark** [VSL12]. **benefit** [SBG+12]. **between** [KMHK12]. **beyond** [LSG12]. **BG** [HMF+12]. **BG/Q** [HMF+12]. **big** [KN12]. **Billion** [CKS+12]. **Billion-particle** [CKS+12]. **binary** [LVY12a]. **biomolecular** [SZM+12]. **BitTorrent** [DRL12]. **blocking** [SMM+12]. **Blue** [CEH+12, CKWC12, Doi12]. **body** [INM12, MD12, SRK+12]. **bottlenecks** [CS12, XCD+12]. **breadth** [BAP12]. **breadth-first** [BAP12]. **Breaking** [CPW+12]. **broadcasts** [DRL12]. **BT** [VSL12]. **Byte** [JSL+12]. **Byte-precision** [JSL+12].

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D [NSM12, TPKP12]. **Data** [KBE+12, AG12, BGI+12, CKWC12, FME+12, IMB+12, KN12, KVC+12, MCD+12, MKB+12, NCB+12, PPA+12, RLY+12, SKCD12, TW12, ZKW+12]. **data-aware** [IMB+12]. **data-centric** [KN12]. **data-driven** [NCB+12]. **Data-intensive** [KBE+12, RLY+12, SKCD12].

data-movement [AG12]. **datacenter** [KMHK12]. **Dataflow** [MMVK12]. **Dataflow-driven** [MMVK12]. **datasets** [KBE+12]. **DBSCAN** [PPA+12]. **deadline** [MJDN12]. **deadline-constrained** [MJDN12]. **deadlock** [HPS+12]. **deduplication** [MKB+12]. **degradation** [DFB+12]. **Demonstrating** [HSH+12]. **demotions** [WHT+12]. **Design** [SMM+12, SKYS12, SPK+12, ZKW+12, IRJ+12, RLY+12]. **Designing** [GKZ12]. **detail** [JSL+12]. **Detection** [FME+12, HPS+12]. **diagnosing** [CS12]. **direct** [HRCK12]. **directed** [DZKS12]. **Direction** [BAP12]. **Direction-optimizing** [BAP12]. **directive** [LV12]. **directive-based** [LV12]. **discovery** [ET12]. **disjoint** [PPA+12]. **disjoint-set** [PPA+12]. **distributed** [CPW+12, LMB12, REP+12]. **distributed-memory** [CPW+12]. **divide** [MGK+12]. **domain** [SV12]. **domains** [CLS+12]. **Dragonfly** [FBR+12]. **DRAM** [SL12, WHT+12]. **driven** [MMVK12, NCB+12]. **drug** [MRG+12]. **drug-induced** [MRG+12]. **DSPs** [IAF+12]. **dynamic** [WHT+12].

Early [LV12]. **earthquake** [CSC12]. **ECC** [LYC+12]. **effective** [AG12]. **effectiveness** [ET12]. **efficiency** [FMR12]. **Efficient** [DRL12, KVC+12, PTS+12, CLS+12, LYC+12, PBA12, SKCD12]. **emerging** [RMNM+12, WKS+12]. **enable** [BAB+12, SPK+12]. **end** [SKYS12]. **end-to-end** [SKYS12]. **energy** [FMR12, KN12, SKCD12]. **energy-efficient** [SKCD12]. **ensembles** [MJDN12]. **equivalencing** [LLG12]. **error** [HPS+12, LVY12a]. **estimating** [DFB+12]. **evaluation** [CSC12, LV12]. **ever** [ABR+12]. **exascale** [CLS+12, LV12, LSG12, VSL12]. **execution** [REP+12]. **exploration** [CPW+12]. **expressing** [BTSA12]. **Extending** [VSL12]. **Extreme** [BTBG+12, BAB+12, HMF+12, LVY12a]. **Extreme-scale** [BTBG+12, BAB+12, LVY12a]. **extremely** [FSM+12].

failures [SL12]. **Fault** [GCSK12]. **FFT** [NSM12, TPKP12]. **field** [SL12]. **fields** [NLL+12]. **file** [DZKS12, LMB12]. **filtering** [KBE+12]. **fine** [SZM+12]. **fine-grained** [SZM+12]. **First** [ABR+12, BAP12]. **First-ever** [ABR+12]. **flexible** [CLS+12]. **flow** [NLL+12]. **flows** [HRCK12, LLG12]. **forests** [SBB+12]. **form** [NCB+12]. **Forward** [RMNM+12]. **forwarding** [CXB+12]. **fragment** [AML+12]. **framework** [JTD+12, RBAC12, TPKP12]. **friendly** [CKS+12]. **FTLE** [NLL+12]. **full** [ABR+12]. **fused** [TW12].

gene [NA12, CEH+12, CKWC12, Doi12]. **Gene/Q** [CEH+12, CKWC12, Doi12]. **general** [FSM+12, IAF+12]. **general-purpose** [IAF+12]. **generation** [KVR12, PCR12, REP+12]. **geometric** [SBB+12, WKS+12]. **geometric-algebraic** [SBB+12]. **Google** [DKC12]. **governed** [BTBG+12]. **GPU** [CHA12, LV12, MMVK12, NSM12, RBAC12, RMNM+12]. **GPUs** [CSKH12]. **grained** [SZM+12]. **granularity** [LYC+12]. **GRAPE** [MD12]. **GRAPE-8** [MD12]. **graph** [CPW+12, FMR12, SKCD12]. **gravitational** [INM12, MD12]. **grid** [KVR12]. **GridFTP** [LVY+12b].

Hardware [AVG+12, SBG+12]. **Hardware-software** [AVG+12]. **HDFS** [IRJ+12]. **heart** [MRG+12]. **heterogeneous** [DRL12, GKZ12, PCR12]. **Heuristic** [AML+12]. **Hierarchical** [WLX+12, DZKS12]. **High** [BDE+12, FSM+12, HRCK12, Hol12, IRJ+12, CSKH12, CSC12, FME+12, IAF+12]. **High-performance**

[FSM+12, CSKH12, CSC12, FME+12]. **hood** [CEH+12]. **Host** [DKC12]. **HPC** [CKS+12, DFB+12, FBR+12, GCSK12, IAF+12, MKB+12]. **human** [MRG+12]. **Hybridizing** [LSG12].

I/O [BCR+12, KVC+12]. **IaaS** [MJDN12]. **IBM** [CEH+12, CKWC12]. **implementation** [LBDS12, SKYS12]. **in-situ** [BAB+12]. **in-transit** [BAB+12]. **independence** [BTSA12]. **induced** [MRG+12]. **InfiniBand** [IRJ+12, SPK+12]. **inflation** [OdSSP12]. **instrumentation** [LVY12a]. **intelligent** [SKYS12]. **intensive** [KBE+12, RLY+12, SKCD12]. **interest** [MGK+12]. **interference** [KMHK12]. **International** [Hol12]. **interrupts** [CXB+12]. **inverse** [BTBG+12]. **irregular** [REP+12]. **issues** [RLY+12, RFD+12].

kernel [MMVK12].

Lake [Hol12]. **language** [SV12]. **Large** [SKCD12, AMF+12, BGI+12, CKS+12, FME+12, FSM+12, KBE+12, MCD+12, RMNM+12]. **Large-scale** [SKCD12, AMF+12, BGI+12, CKS+12, FME+12, FSM+12, MCD+12, RMNM+12]. **latency** [NCB+12]. **latency-tolerant** [NCB+12]. **lattice** [Doi12]. **layout** [DZKS12]. **learning** [NA12]. **Legion** [BTSA12]. **level** [GSS12, JSL+12, ME12]. **linear** [GGDS+12]. **live** [KMHK12]. **load** [AML+12, DKC12]. **load-balancing** [AML+12]. **local** [AVG+12]. **locality** [BTSA12]. **lock** [CS12]. **logical** [BTSA12]. **look** [GCSK12]. **Looking** [CEH+12]. **loops** [REP+12]. **low** [IAF+12, TPKP12]. **low-communication** [TPKP12]. **Lustre** [HSH+12].

machine [TW12]. **machines** [CPW+12, GKZ12]. **MAGE** [LYC+12]. **making** [GSS12]. **management** [ET12, WHT+12, ZKW+12]. **Managing** [AG12]. **many** [PTS+12]. **many-core** [PTS+12]. **manycore** [WKS+12]. **map** [GSS12]. **map-making** [GSS12]. **Mapping** [BGL+12, WLX+12]. **MapReduce** [CHA12]. **Massively** [SLC+12, SRK+12]. **matching** [KGPH12]. **maximize** [BPB12]. **McrEngine** [IMB+12]. **Measuring** [KMHK12]. **memories** [AVG+12]. **memory** [AG12, CPW+12, LYC+12, REP+12, SBG+12]. **method** [AML+12, DFB+12]. **microscope** [GCSK12]. **microwave** [GSS12]. **migrations** [WHT+12]. **mining** [FMR12]. **mitigating** [OdSSP12]. **model** [DKC12, GKZ12]. **modeling** [KVR12, MRG+12, SMM+12, SV12]. **models** [LV12]. **molecular** [AML+12]. **movement** [AG12]. **moving** [LSG12]. **MPI** [HPS+12, NCB+12]. **multi** [HMF+12, IAF+12, JTD+12, LSG12, MMVK12, NSM12, PBA12, WKS+12]. **multi-** [WKS+12]. **multi-cloud** [PBA12]. **multi-core** [IAF+12]. **multi-GPU** [NSM12]. **multi-kernel** [MMVK12]. **multi-objective** [JTD+12]. **multi-petaflop** [HMF+12]. **multi-petaflops** [LSG12]. **multicore** [DFB+12]. **multigrid** [SBB+12, WKS+12]. **multiple** [MGK+12]. **multithreaded** [CS12, KGPH12]. **MUST** [HPS+12].

NAS [VSL12]. **NDGF** [KVR12]. **neighborhood** [HS12]. **network** [CEH+12, DRL12, FBR+12, HSH+12, KGPH12, NA12, SKYS12, SPK+12]. **network-topology-aware** [SPK+12]. **Networking** [Hol12, CXB+12]. **networks** [BGL+12, DRL12, NA12]. **non** [SMM+12]. **non-blocking** [SMM+12]. **Novel** [BGI+12]. **November** [Hol12]. **NUMA** [FMR12]. **NUMA-aware** [FMR12]. **numerical** [GGDS+12, HRCK12, KBE+12]. **numerically** [CSKH12].

O [BCR+12, KVC+12]. **objective** [JTD+12]. **observable** [ABR+12]. **octrees** [SBB+12]. **OpenACC** [LSG12]. **optimistic** [CXB+12]. **Optimization** [HS12, WKS+12, DZKS12]. **Optimizing** [CXB+12, MCD+12, SZM+12, BAP12]. **orbital** [AML+12]. **out-of-core** [AG12]. **output** [XCD+12]. **overlapping** [GGDS+12]. **overlay** [CXB+12]. **overlay-based** [CXB+12].

Parallel [BCR+12, NA12, NLL+12, SBB+12, GSS12, JTD+12, LMB12, LBDS12, OdSSP12, PPA+12, PCR12, REP+12, SLC+12, SRK+12, VSL12, ZKW+12]. **parallelism** [BPB12]. **parallelization** [AG12]. **parallelized** [ME12]. **Parametric** [LLG12]. **particle** [BCR+12, CKS+12, NLL+12]. **path** [SKCD12]. **Patus** [CSC12]. **PDEs** [BTBG+12]. **Performance** [Hol12, BDE+12, BGI+12, CSKH12, CSC12, DFB+12, FME+12, FMR12, FSM+12, IAF+12, IRJ+12, LBDS12, MD12, MMVK12, RLY+12, SV12]. **Peta** [Doi12]. **Peta-scale** [Doi12]. **petaflop** [HMF+12]. **petaflops** [LSG12]. **Pflops** [INM12]. **phase** [HRCK12]. **PIDX** [KVC+12]. **pipelines** [PCR12]. **placement** [SPK+12]. **point** [CKS+12, MCD+12]. **Portable** [ME12]. **power** [IAF+12, LYC+12, WHT+12]. **practical** [DFB+12]. **precision** [JSL+12]. **preconditioner** [GSS12]. **prediction** [DKC12, GCSK12]. **prefetching** [CKWC12]. **preparing** [BDE+12]. **principles** [HS12]. **problem** [INM12]. **problems** [BTBG+12, FSM+12]. **Proceedings** [Hol12]. **processes** [SPK+12]. **processing** [BAB+12, JSL+12]. **processors** [DFB+12, PTS+12, WKS+12]. **productive** [LV12]. **programming** [FSM+12, GKZ12, LV12]. **programs** [LLG12, OdSSP12]. **projection** [MMVK12]. **propagation** [RMNM+12]. **protocol** [AVG+12]. **Protocols** [RLY+12, RFD+12]. **provisioning** [MJDN12]. **purpose** [IAF+12].

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simulator [PWD+12]. **situ** [BAB+12]. **sky** [HMF+12]. **soft** [LVY12a]. **software** [AVG+12, HRCK12, PCR12]. **solver** [CSKH12, FSM+12, SRK+12]. **solvers** [AG12]. **space** [SRK+12]. **space-time** [SRK+12]. **sparse** [AG12]. **spatial** [KBE+12]. **specific** [SV12]. **speed** [CPW+12]. **stable** [CSKH12]. **static** [AML+12]. **stencil** [BPB12]. **stencils** [CSC12]. **Storage** [Hol12, DZKS12, MKB+12, PBA12]. **Strassen** [LBDS12]. **strategy** [MGK+12]. **structure** [NA12, PPA+12]. **study** [MKB+12, SL12]. **sub** [BGL+12]. **sub-communicators** [BGL+12]. **supercomputer** [CKWC12, Doi12, NSM12, XCD+12]. **supercomputing** [SKCD12]. **symbolic** [LLG12]. **synthetic** [PTS+12]. **system** [FBR+12, IMB+12, SMM+12, SKYS12]. **systems** [CKS+12, CLS+12, DZKS12, ET12, GCSK12, LMB12, LYC+12, MKB+12, PCR12, REP+12].

T* [KN12]. **task** [OdSSP12, WLX+12]. **techniques** [FMR12]. **throughput** [HRCK12]. **Tiling** [BPB12]. **time** [MRG+12, NLL+12, OdSSP12, SRK+12]. **time-varying** [NLL+12]. **Titan** [BDE+12]. **tolerant** [NCB+12]. **tomography** [DRL12]. **tool** [LVY12a]. **topology** [SPK+12]. **torus** [BGL+12]. **transactional** [SBG+12]. **transfers** [LVY+12b]. **transformations** [MMVK12]. **transit** [BAB+12]. **translating** [NCB+12]. **transport** [BDE+12]. **traversal** [SKCD12]. **tree** [LMB12]. **tridiagonal** [CSKH12]. **trillion** [BCR+12, INM12]. **trillion-body** [INM12]. **TSUBAME** [NSM12]. **tuning** [JTD+12, ME12]. **two** [CKS+12, GSS12, HRCK12]. **two-level** [GSS12]. **two-phase** [HRCK12]. **two-point** [CKS+12].

unified [GKZ12]. **universe** [ABR+12, HMF+12]. **Unleashing** [IAF+12]. **unstructured** [SBB+12]. **UQ** [BTBG+12]. **USA** [Hol12]. **Usage** [AMF+12]. **using** [CSKH12, DRL12, IMB+12, LSG12, LVY12a, LVY+12b, PPA+12]. **UT** [Hol12]. **UV2** [TW12].

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W [MD12]. **walk** [LMB12]. **wave** [RMNM+12]. **weather** [MGK+12]. **wide** [HSH+12, RLY+12]. **wide-area** [RLY+12]. **work** [OdSSP12]. **workflow** [MJDN12]. **workload** [KVR12]. **workloads** [DFB+12].

X [SLC+12]. **X-ray** [SLC+12]. **XK6** [SZM+12].

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