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## Abstract

This bibliography records articles presented at the Supercomputing '2005 conference.

## Title word cross-reference

$1.7 \times 10^{10}$  [BHR05]. 4 [TM05].  $M^3$  [JSH<sup>+</sup>05].

1 [NNS<sup>+</sup>05]. **159-Billion-dimensional** [YIM05]. **16.447** [YIM05].

**2005** [ACM05].

**Abstractions** [TKW<sup>+</sup>05]. **Access** [SS05, WMSS05]. **Accuracy** [CCW<sup>+</sup>05]. **ACM** [ACM05]. **ACM/IEEE** [ACM05]. **Activity** [SVHF05]. **Adaptive** [SMD<sup>+</sup>05]. **Aerospace** [MAB05]. **Airborne** [ABD<sup>+</sup>05].

**Alerts** [GSA<sup>+</sup>05]. **Algebra** [ZP05]. **Algorithm** [YCH<sup>+</sup>05]. **Algorithms** [CCW<sup>+</sup>05, GGHM05]. **All-to-All** [TN05]. **Alternative** [HWK<sup>+</sup>05]. **Analysis** [SWC<sup>+</sup>05]. **Analytcs** [SMD<sup>+</sup>05, SWC<sup>+</sup>05]. **Analyze** [SS05]. **Analyzing** [SKOS05]. **Apex** [SS05]. **Apex-Map** [SS05]. **Application** [BDH<sup>+</sup>05, SKOS05]. **Application-Based** [BDH<sup>+</sup>05]. **Applications** [CCD05, GFC05, MAB05, TTH05, THGM05, TOG05, WMSS05, YMM05, ZAKB<sup>+</sup>05, dBKB05]. **Approach** [DRF05]. **Approaches** [ZAKB<sup>+</sup>05]. **Architecture** [KAWN05, Ste05]. **Arrays** [KAWN05]. **Atoms** [IIF<sup>+</sup>05]. **Automatic** [CO05]. **Aware** [hHcF05, GFC05].

**Balance** [Smi05]. **Balanced** [dBKB05]. **Based** [BDH<sup>+</sup>05, HGS<sup>+</sup>05, HWK<sup>+</sup>05, KMM<sup>+</sup>05].

**Batch** [LD05]. **Be** [BHR05]. **Benchmark** [HGS<sup>+</sup>05, SS05]. **Beyond** [IIF<sup>+</sup>05]. **Billion** [YIM05]. **Biology** [ZAKB<sup>+</sup>05]. **BlueGene** [GYL<sup>+</sup>05, YCH<sup>+</sup>05]. **BlueGene/L** [GYL<sup>+</sup>05, YCH<sup>+</sup>05]. **Boxing** [Tha05]. **Breadth** [YCH<sup>+</sup>05]. **Breadth-First** [YCH<sup>+</sup>05]. **Bridging** [GLG<sup>+</sup>05]. **Brokering** [DRF05].

**Calculation** [IIF<sup>+</sup>05]. **Calibrating** [GH05]. **Can** [BHR05, CCD05]. **Case** [HCS<sup>+</sup>05, THGM05]. **Challenges** [Dor05]. **Change** [GSA<sup>+</sup>05]. **Characterization** [BDH<sup>+</sup>05]. **Checkpointing** [GSJP05]. **Chemistry** [KAWN05, GH05]. **Circuit** [BBH<sup>+</sup>05]. **ClawHMMER** [HHH05]. **Clocks** [Smi05]. **Clusters** [GFC05, NLZ05]. **code** [GYL<sup>+</sup>05]. **Codes** [DKPS05]. **Collective** [TN05, WKWZ05]. **Columbia** [MAB05, BDH<sup>+</sup>05]. **Commodity** [NNS<sup>+</sup>05]. **Common** [KAWN05]. **Communication** [DKPS05, HGS<sup>+</sup>05, SKOS05, TN05, dBKB05]. **Communication-Computation** [DKPS05]. **Communications** [WKWZ05]. **Comparison** [KMM<sup>+</sup>05]. **Comparison-based** [KMM<sup>+</sup>05]. **Component** [KAWN05]. **Computation** [DKPS05]. **Computational** [DL05, KAWN05, OCW<sup>+</sup>05, ZAKB<sup>+</sup>05]. **compute** [PGG05]. **Computers** [GSJP05]. **Computing** [BBH<sup>+</sup>05, GLG<sup>+</sup>05, hHcF05, HM05, JCH05, Sil05, AKJ05]. **Concurrency** [TN05]. **conference** [ACM05]. **Configurable** [GG05]. **configuration** [GH05]. **Congestion** [GG05]. **Consistency** [KSY05]. **Consistent** [Tha05]. **constrained** [GFC05]. **Contaminants** [ABD<sup>+</sup>05]. **Contraction** [SKPS05]. **Control** [GG05]. **Cray** [GH05]. **Cray-X1** [GH05]. **Cross** [YMM05]. **Cross-Platform** [YMM05]. **Cryogenic** [Van05].

**D** [TM05]. **Data** [ABD<sup>+</sup>05, CAB05, GSA<sup>+</sup>05, GG05, HM05, SKPS05, SS05, VMF<sup>+</sup>05]. **Data-Driven** [ABD<sup>+</sup>05]. **Database** [KMM<sup>+</sup>05]. **Datasets** [DL05]. **Dense** [GGHM05]. **Density** [CCW<sup>+</sup>05]. **Deployment** [SVHF05]. **Deserialization** [AGL05]. **Design** [JSH<sup>+</sup>05]. **Desktop** [VMF<sup>+</sup>05]. **Detection** [GSA<sup>+</sup>05]. **Devices** [SMD<sup>+</sup>05]. **DI-GRUBER** [DRF05]. **Diagnosis** [KMM<sup>+</sup>05]. **diagonalization** [YIM05]. **Differential** [AGL05]. **dimensional** [YIM05]. **Discovery** [GLG<sup>+</sup>05]. **Distributed** [DRF05, GFC05, YCH<sup>+</sup>05]. **Driven** [ABD<sup>+</sup>05, SWC<sup>+</sup>05]. **DVS** [GFC05]. **Dynamic** [ABD<sup>+</sup>05, KFL05, OHD<sup>+</sup>05]. **Dynamics** [DL05, GYL<sup>+</sup>05].

**Earth** [YIM05]. **Earthquake** [GLG<sup>+</sup>05]. **Efficient** [GGHM05]. **Electron** [IIF<sup>+</sup>05]. **Electronic** [IIF<sup>+</sup>05, LMH<sup>+</sup>05]. **Element** [BHR05]. **Elliptic** [CCW<sup>+</sup>05]. **End** [Sil05]. **Energy** [KFL05]. **Enhancement** [SKPS05]. **Environment** [JCH05]. **Even** [NNS<sup>+</sup>05]. **Exact** [YIM05]. **Exact-diagonalization** [YIM05]. **Execution** [NLZ05, YMM05]. **Experiment** [KMM<sup>+</sup>05]. **Exploiting** [KFL05, TN05]. **Expressions** [SKPS05]. **Extraction** [TM05].

**fabrics** [LMH<sup>+</sup>05]. **farm** [PGG05]. **Fast** [Smi05]. **Fault** [EJKD05, GSJP05, JSH<sup>+</sup>05]. **Fault-Tolerant** [JSH<sup>+</sup>05]. **Feasibility** [BBH<sup>+</sup>05]. **Feasible** [NNS<sup>+</sup>05]. **Feature** [TM05]. **Fermion** [YIM05]. **File** [AKJ05]. **Finite** [BHR05]. **First** [GYL<sup>+</sup>05, YCH<sup>+</sup>05]. **First-Principles** [GYL<sup>+</sup>05]. **Flow** [TM05]. **Fluid** [DL05]. **Foundation** [GSJP05]. **Framework** [ABKL05, HM05, SVHF05]. **FreeLoader** [VMF<sup>+</sup>05]. **Full** [IIF<sup>+</sup>05, GH05]. **full-configuration** [GH05].

**Genome** [ZAKB<sup>+</sup>05]. **Genome-Scale** [ZAKB<sup>+</sup>05]. **GLARE** [SVHF05]. **Global** [AKJ05, KAWN05, SS05, Tha05]. **Globus** [ABKL05]. **GPU** [GGHM05]. **Graphics**

[GGHM05]. **Grid** [AKJ05, DRF05, HGS<sup>+</sup>05, SVHF05, dBKB05]. **GridFTP** [ABKL05]. **Grids** [HWK<sup>+</sup>05]. **Ground** [IIF<sup>+</sup>05]. **GRUBER** [DRF05].

**Hardware** [GGHM05, THGM05]. **HEC** [OCW<sup>+</sup>05]. **Heterogeneous** [NLZ05]. **Heuristics** [CO05]. **High** [AKJ05, BBH<sup>+</sup>05, hHcF05, MAB05, Sil05, Van05, ZP05, dBKB05]. **High-End** [Sil05]. **High-Performance** [AKJ05, hHcF05]. **High-throughput** [dBKB05]. **Highway** [GSA<sup>+</sup>05]. **HMMer** [HHH05]. **HPC** [CCD05, LMH<sup>+</sup>05, SWC<sup>+</sup>05, SS05, WMSS05]. **Hubbard** [YIM05]. **Hybrid** [SKOS05, Ste05]. **Hydrodynamics** [CCW<sup>+</sup>05].

**Identification** [ABD<sup>+</sup>05]. **Identity** [Tha05]. **Implementation** [HHH05, JSH<sup>+</sup>05]. **Incremental** [GSJP05]. **Inlining** [CO05]. **Integrated** [SKPS05]. **Integrating** [KMM<sup>+</sup>05]. **Intelligent** [TM05]. **Intensive** [GLG<sup>+</sup>05, ZAKB<sup>+</sup>05]. **Inter** [KFL05]. **Inter-Node** [KFL05]. **interaction** [GH05]. **Interactive** [JCH05, LD05]. **Interconnect** [SKOS05, LMH<sup>+</sup>05]. **Inversion** [ABD<sup>+</sup>05]. **Issues** [Sil05].

**Just** [KFL05].

**Kernel** [GSJP05].

**L** [GYL<sup>+</sup>05, YCH<sup>+</sup>05]. **Large** [DL05, GYL<sup>+</sup>05, HM05, TM05]. **Large-Scale** [DL05, GYL<sup>+</sup>05, HM05, TM05]. **Largest** [BHR05]. **Leading** [OCW<sup>+</sup>05]. **Level** [GSJP05]. **Linear** [GGHM05, ZP05]. **Loading** [CAB05]. **Locality** [SKPS05, WMSS05]. **Long** [OHD<sup>+</sup>05]. **Loop** [SKPS05]. **LU** [GGHM05]. **LU-GPU** [GGHM05].

**Machines** [LD05]. **Macro** [GLG<sup>+</sup>05]. **Making** [KSY05]. **Management** [KMM<sup>+</sup>05]. **Map** [SS05]. **Massive** [AKJ05]. **Measure** [OHD<sup>+</sup>05]. **MegaProto** [NNS<sup>+</sup>05]. **Memories** [Van05]. **Memory** [WMSS05, ZAKB<sup>+</sup>05]. **Memory-Intensive** [ZAKB<sup>+</sup>05]. **Merrimac** [EJKD05]. **Meshing** [TOG05]. **Methods** [OCW<sup>+</sup>05]. **Metrics** [CCD05]. **MHETA** [NLZ05]. **Micro** [GLG<sup>+</sup>05]. **Microprocessors** [Dor05]. **Mining** [DF05, HM05]. **Mixed** [WKWZ05]. **Mixing** [LD05]. **Mobile** [SMD<sup>+</sup>05]. **Mode** [WKWZ05]. **Model** [NLZ05, YIM05]. **Modeling** [WKWZ05]. **Modern** [TN05]. **Molecular** [GYL<sup>+</sup>05]. **MPI** [JSH<sup>+</sup>05, KPW05, KFL05]. **Multi** [CAB05, GH05]. **Multi-Terabyte** [CAB05]. **multi-teraflop** [GH05]. **Multicasting** [dBKB05]. **Multilevel** [KAWN05]. **Multiple** [JSH<sup>+</sup>05]. **Music** [DF05]. **Myrinet** [JSH<sup>+</sup>05].

**NASA** [MAB05]. **Net** [GLG<sup>+</sup>05]. **Network** [SWC<sup>+</sup>05]. **Networks** [TN05]. **Node** [KFL05]. **November** [ACM05]. **Novice** [HCS<sup>+</sup>05].

**Octree** [TOG05]. **OGSA** [HWK<sup>+</sup>05]. **OGSA-based** [HWK<sup>+</sup>05]. **Only** [NNS<sup>+</sup>05]. **Operations** [ZP05]. **Opportunities** [Dor05]. **Optical** [BBH<sup>+</sup>05]. **Optimizations** [SKPS05]. **Optimized** [AGL05, CAB05]. **Optimizing** [TN05]. **opto** [LMH<sup>+</sup>05]. **opto-electronic** [LMH<sup>+</sup>05]. **Overlap** [DKPS05].

**Paradigms** [SS05]. **Parallel** [DKPS05, GSJP05, HCS<sup>+</sup>05, HM05, KMM<sup>+</sup>05, SS05, TTH05, TOG05, YMM05, YCH<sup>+</sup>05, GH05]. **parallel-vector** [GH05]. **Parallelism** [KAWN05]. **Parameter** [TTH05]. **Partial** [YMM05]. **Partitioning** [THGM05].

**Patterns** [WMSS05]. **10kW** [NNS<sup>+</sup>05]. **IEEE** [ACM05]. **PerfExplorer** [HM05]. **Performance** [AGL05, AKJ05, BBH<sup>+</sup>05, BDH<sup>+</sup>05, CCD05, GFC05, hHcF05, HM05, KMM<sup>+</sup>05, TTH05, WKWZ05, YMM05, ZP05]. **Performance-constrained** [GFC05]. **PerfTrack** [KMM<sup>+</sup>05]. **Periodic** [LD05]. **Photosynthetic** [IIF<sup>+</sup>05]. **Platform** [GYL<sup>+</sup>05, SMD<sup>+</sup>05, YMM05]. **Platforms** [OCW<sup>+</sup>05]. **Pore** [JCH05]. **Power** [GFC05, hHcF05]. **Power-Aware** [hHcF05, GFC05]. **Practical** [KSY05]. **Prediction** [YMM05]. **Principles** [GYL<sup>+</sup>05]. **Proceedings** [ACM05]. **Processor** [Van05]. **Productivity** [HCS<sup>+</sup>05]. **Profitable** [PW05]. **program** [GH05]. **Programmer** [HCS<sup>+</sup>05]. **Programming** [HCS<sup>+</sup>05]. **Programs** [HCS<sup>+</sup>05]. **SS05**. **Programs** [KFL05, OHD<sup>+</sup>05]. **Projections** [Dor05]. **Proteins** [IIF<sup>+</sup>05]. **Provisioning** [SVHF05].

**Qbox** [GYL<sup>+</sup>05]. **Quantifying** [WMSS05]. **quantum** [GH05]. **Query** [SWC<sup>+</sup>05].

**Rack** [NNS<sup>+</sup>05]. **Real** [ABD<sup>+</sup>05, GSA<sup>+</sup>05, LD05]. **Real-Time** [ABD<sup>+</sup>05, LD05]. **Reconfigurable** [SKOS05, THGM05, ZP05]. **Registration** [SVHF05]. **Repository** [CAB05]. **Represent** [CCD05]. **Requirements** [SKOS05]. **Resolution** [MAB05]. **Resource** [DRF05]. **Resources** [TKW<sup>+</sup>05, VMF<sup>+</sup>05]. **Results** [SWC<sup>+</sup>05]. **Roadmap** [Sil05]. **RSFQ** [Dor05, Van05]. **Run** [hHcF05]. **Run-Time** [hHcF05]. **Running** [OHD<sup>+</sup>05].

**Sampling** [OHD<sup>+</sup>05]. **Save** [KFL05]. **Scalable** [CCW<sup>+</sup>05, TOG05, YCH<sup>+</sup>05]. **Scalar** [OCW<sup>+</sup>05]. **Scale** [DL05, GYL<sup>+</sup>05, HM05, SKOS05, TM05, ZAKB<sup>+</sup>05]. **Scaling** [KFL05]. **Scavenging** [VMF<sup>+</sup>05]. **Scheduling** [GFC05, LD05, PGG05].

**Scientific** [GFC05, VMF<sup>+</sup>05]. **SCTP** [KPW05]. **Search** [HHH05, YCH<sup>+</sup>05]. **Seattle** [ACM05]. **Separating** [TKW<sup>+</sup>05]. **Sequential** [KSY05]. **Server** [ABKL05]. **Services** [GG05, HGS<sup>+</sup>05, PW05]. **Simple** [CCD05]. **Simulated** [JCH05]. **Simulations** [ABD<sup>+</sup>05, TM05, GYL<sup>+</sup>05]. **Simulator** [YIM05]. **Sky** [CAB05]. **Slack** [KFL05]. **SOAP** [AGL05, HGS<sup>+</sup>05]. **SOAP-based** [HGS<sup>+</sup>05]. **Software** [HWK<sup>+</sup>05, THGM05]. **Solved** [BHR05]. **Solving** [GGHM05]. **Spectral** [CCW<sup>+</sup>05]. **speculative** [PGG05]. **Speed** [Van05]. **SPICE** [JCH05]. **Stacks** [HWK<sup>+</sup>05]. **State** [IIF<sup>+</sup>05]. **Storage** [TKW<sup>+</sup>05, VMF<sup>+</sup>05]. **Strategies** [WKWZ05]. **Streaming** [EJKD05, HHH05]. **Striped** [ABKL05]. **Study** [GLG<sup>+</sup>05, HCS<sup>+</sup>05, THGM05]. **Suite** [HGS<sup>+</sup>05]. **Supercluster** [BDH<sup>+</sup>05]. **Supercomputer** [EJKD05, MAB05]. **Supercomputing** [ACM05, THGM05]. **Superconductor** [Dor05, Sil05]. **Supporting** [GG05]. **Survey** [CAB05]. **Switching** [BBH<sup>+</sup>05]. **System** [BHR05, hHcF05, Sil05, Smi05, TKW<sup>+</sup>05]. **Systems** [AKJ05, BBH<sup>+</sup>05, GGHM05, SS05, ZAKB<sup>+</sup>05, ZP05].

**Tactical** [TKW<sup>+</sup>05]. **tasks** [PGG05]. **TCP** [KPW05]. **Technique** [Tha05]. **Techniques** [EJKD05]. **Technology** [KMM<sup>+</sup>05, NNS<sup>+</sup>05, Sil05, Ste05]. **Tensor** [SKPS05]. **Tera** [CCW<sup>+</sup>05]. **Tera-Scalable** [CCW<sup>+</sup>05]. **Terabyte** [CAB05]. **teraflop** [GH05]. **TeraScale** [TOG05, ABD<sup>+</sup>05, DF05]. **TFlops** [NNS<sup>+</sup>05, YIM05]. **TFlops/10kW** [NNS<sup>+</sup>05]. **throughput** [dBKB05]. **Time** [ABD<sup>+</sup>05, GSA<sup>+</sup>05, hHcF05, KFL05, LD05]. **Titanium** [KSY05]. **Today** [BHR05]. **Tolerance** [EJKD05, GSJP05]. **Tolerant** [JSH<sup>+</sup>05]. **Tool** [KMM<sup>+</sup>05]. **Tracing** [OHD<sup>+</sup>05]. **Tracking** [TM05]. **Traffic** [GSA<sup>+</sup>05, SWC<sup>+</sup>05]. **Transformations**

[DKPS05]. **Transparent** [GSJP05].  
**Transport** [GG05]. **Trapped** [YIM05].  
**Tuning** [CO05, TTH05, WKWZ05].

**Ultra** [SKOS05, Van05].

**Ultra-High-Speed** [Van05]. **Ultra-Scale** [SKOS05]. **uncertain** [PW05]. **Unknowns** [BHR05]. **Unsteady** [DL05]. **Using** [GLG<sup>+</sup>05, LD05, OHD<sup>+</sup>05, YMM05, GYL<sup>+</sup>05, KAWN05, MAB05].

**Variability** [TTH05]. **Variable** [CCW<sup>+</sup>05].

**Variable-Density** [CCW<sup>+</sup>05]. **Vector** [OCW<sup>+</sup>05, GH05]. **versus** [KPW05].

**Viable** [LMH<sup>+</sup>05]. **Virtual** [LD05]. **Visual** [SMD<sup>+</sup>05]. **Visualization** [DL05, SWC<sup>+</sup>05].

**Visualizing** [TM05]. **Voltage** [KFL05].

**VSched** [LD05].

**WA** [ACM05]. **Web** [HGS<sup>+</sup>05]. **Well** [CCD05]. **world** [PW05].

**X1** [GH05].

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