

# A Bibliography of Supercomputing '89

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07 August 2013  
Version 1.04

## Abstract

This bibliography records articles presented at the Supercomputing '89 conference.

## Title word cross-reference

<sup>2</sup> [MA89].

/MP [MA89].

**10** [Fat89]. **10-Q** [Fat89]. **1024-processor** [GBSS89].

**2** [Fat89]. **29-state** [Sig89].

**3/SX** [WMT89]. **3090** [AG89a].

**64-bit** [KM89].

'89 [ACM89].

**academic** [MKYK89]. **acoustics** [LSS89]. **activation** [YHKM89]. **administration** [BAC<sup>+</sup>89]. **aerothermodynamics** [Dei89]. **AHEAD** [dEV89]. **algorithm** [Bis89a, LC89, PC89, ZWM89]. **algorithms** [AG89a, CP89, GD89b, Iye89, OS89, PBP89, Sha89]. **alignment** [Iye89]. **allocation** [JCC89]. **among** [Cha89]. **analysis** [Cal89, EGP89, Fat89, HK89, MJ89]. **analytical** [AG89b]. **approach** [JCC89]. **architectural** [BCS<sup>+</sup>89]. **architecture** [SMCG89, WMT89]. **architectures** [And89, LC89, Mv89]. **area** [Lek89]. **array** [GD89b, SHO<sup>+</sup>89]. **assembly** [WW89]. **assignment** [BNR89, PC89]. **assisted** [Par89]. **associated** [PRWB89]. **associative** [PWY<sup>+</sup>89]. **atmospheric** [JH89]. **Automatic** [BNR89, TKA89]. **Automatically** [NE89]. **automaton** [Sig89].

**balance** [WL89]. **balancing** [CP89]. **based** [GD89a, Hei89]. **Benchmark** [CHK89, BCS<sup>+</sup>89]. **beyond** [DSOZ89]. **bit** [KM89]. **block** [Bak89, Bis89a]. **blocking** [Hei89]. **bound** [Par89]. **Building** [AG89b].

**C** [MA89]. **cache** [MA89]. **cache-coherent** [MA89]. **calculations** [CHK89]. **can** [Sig89]. **capabilities** [Kut89]. **Capability** [FT89]. **Carlo** [BCS<sup>+</sup>89, WW89]. **case** [Sig89]. **cellular** [Sig89]. **channel** [OJ89]. **character** [TKA89]. **characteristics** [Iye89]. **Chare** [SK89]. **Chare-Kernel** [SK89]. **checksups** [Che89]. **chemistry** [FHS89]. **Cholesky** [AG89a]. **chromodynamics** [SHO<sup>+</sup>89]. **circuit** [FYH89, Hei89, PBP89]. **circuit-switched** [Hei89]. **circulant** [Bak89]. **code** [Car89]. **code-methods** [Car89]. **coherent** [MA89]. **Combining** [RJ89]. **Communication** [Gro89, SR89]. **communities** [MKYK89]. **Comparative** [Hei89]. **Comparison** [NE89]. **Compilers** [NE89]. **complex** [RS89, Sig89]. **composition** [CT89]. **computation** [CC89]. **Computational** [Dei89, Kut89, FT89, LSS89]. **Computations** [GML89, Mv89]. **computer** [CHK89, Par89, PWY<sup>+</sup>89, ZRV89]. **computers** [HK89, Hua89]. **Computing** [BW89]. **concepts** [Cro89]. **concerns** [Car89]. **concurrency** [Cha89]. **Concurrent** [WW89, CT89]. **conflict** [Cal89]. **conflicts** [TM89]. **conjugate** [MJ89]. **connected** [CC89]. **Connection** [Dag89, ESH89, JHM89, JKFM89, BBGJ89]. **Construction** [MKYK89]. **constructs** [Mv89]. **consume** [RJ89]. **convergence** [MJ89]. **cost** [BW89]. **coupled** [Mv89]. **Cray** [Bak89, Fat89, KC89]. **Cray-2** [Bak89, Fat89]. **crossbar** [HT89]. **cube** [CC89, JCC89]. **cubes** [GD89a]. **current** [FT89, Kut89].

**d** [HJ89]. **DASP** [PWY<sup>+</sup>89]. **data** [BNR89, MJ89, ZWM89]. **data-level** [ZWM89]. **data/program** [BNR89]. **debuggers** [PU89]. **debugging** [Che89, EGP89]. **decomposition** [Bak89, CP89, CC89]. **depth** [Par89]. **digital** [Hua89]. **Dilation** [HJ89]. **dimensional** [OJ89]. **directions** [Kut89]. **dissipation** [OJ89]. **distributed** [BPA89, MA89, PWY<sup>+</sup>89, SR89]. **distributed-memory** [BPA89]. **due** [GML89]. **dynamic** [SK89]. **dynamical** [BBGJ89]. **dynamics** [FT89, Kut89].

**editor** [BKK<sup>+</sup>89]. **Effective** [KC89]. **effects** [HD89]. **Efficient** [CC89, PBP89]. **Element** [MJ89]. **elimination** [Lev89]. **embedding** [HJ89]. **environment** [Bis89b, GGJ89, NNIL89]. **equations** [OJ89]. **ETA** [Fat89]. **Euler** [OJ89]. **even** [Lev89]. **Event** [EGP89]. **evolution** [WW89]. **examples** [FHS89]. **experimentation** [GGJ89]. **external** [Bai89].

**factorization** [AG89a, Bis89a, SR89]. **fermions** [BBGJ89]. **FFT** [JKFM89]. **FFTs** [Bai89]. **File** [Cro89, NNIL89]. **flow** [CHK89, Dag89, JH89, OJ89]. **fluid** [FT89, Kut89]. **fluid-dynamics-current** [Kut89]. **FORTTRAN** [dEV89, KKK89, NE89]. **framework** [HT89]. **function** [BW89]. **future** [Kut89]. **Futures** [Cha89].

**'GAMTEB** [BCS<sup>+</sup>89]. **general** [PWY<sup>+</sup>89]. **general-purpose** [PWY<sup>+</sup>89]. **generalized** [Lev89]. **geometric** [OS89]. **global** [JH89]. **gradient** [MJ89]. **graph** [YHKM89]. **grid** [CHK89]. **ground** [GML89]. **GTS** [ALTB89].

**Hardware** [WMT89]. **Harray** [YHKM89]. **HCN** [GD89a]. **HDB** [Che89]. **hierarchical** [Bai89]. **High**

[And89, NNIL89, Che89, HK89, SMC89].  
**high-speed** [HK89]. **HVDC** [GML89].  
**hyper** [HJ89]. **hyper-pyramid** [HJ89].  
**hypercube** [GBSS89, HJ89]. **hypersonic**  
 [Dag89].

**I/O** [Cro89]. **i860** [KM89]. **IBM** [AG89a].  
**implement** [Sig89]. **Implementation**  
 [Dag89, CP89]. **Implementing** [GD89b].  
**increasing** [WW89]. **inputs** [Par89].  
**integrated** [CP89, HT89]. **interactive**  
 [AG89b, BKK<sup>+</sup>89]. **interconnection**  
 [GD89a]. **internet** [MKYK89]. **inverse**  
 [LC89]. **issues** [Car89]. **iteration** [Wol89].  
**iWarp** [Gro89].

**Japanese** [MKYK89].

**K9** [BPA89]. **Kernel** [SK89]. **kinematics**  
 [LC89]. **Knowledge** [ESH89].

**language** [Mv89]. **LANL** [BCS<sup>+</sup>89]. **Large**  
 [dEV89, Car89]. **level**  
 [Che89, ZWM89, Zia89]. **Limits** [BAC<sup>+</sup>89].  
**linear** [GD89b]. **Load** [CP89]. **logic**  
 [PBP89]. **loop** [WL89]. **loosely** [Mv89].  
**lower** [Par89].

**Machine** [Dag89, ESH89, JHM89, JKFM89,  
 CC89, Sig89, TM89, BBGJ89].

**Macrotasking** [Bak89]. **manipulations**  
 [TKA89]. **mapping** [Zia89]. **matrices**  
 [Bak89]. **Matrix** [JHM89, SR89].

**Measuring** [ZRV89]. **mechanism** [Cha89].

**Memory** [TM89, Bai89, BPA89, Cal89,  
 MA89, RS89, RJ89, WWS89]. **mesh** [SR89].

**method** [MJ89]. **methodology** [RS89].

**methods** [Car89]. **microprocessor** [KM89].

**migration** [JCC89]. **MIMD**

[JH89, PWY<sup>+</sup>89, SHO<sup>+</sup>89]. **Models**

[PU89, AG89b, JH89]. **Monte**

[BCS<sup>+</sup>89, WW89]. **MP** [Fat89, MA89].

**multi** [Zia89]. **multi-level** [Zia89].

**multicomputers** [RS89]. **Multiple** [HT89].

**multiplication** [JHM89]. **Multiprocessor**  
 [MHHG89, JCC89, MA89, RJ89].

**multiprocessor-system** [MA89].

**multiprocessors** [GGJ89, RS89, WWS89].

**n** [CJ89, JCC89]. **N-cube** [JCC89]. **NEC**

[WMT89]. **NERV** [MHHG89]. **network**

[GD89a, HT89, WWS89]. **networking**

[Lek89]. **networks** [Hei89, MHHG89, Par89].

**Neumann** [Sig89]. **Neural**

[WWS89, MHHG89]. **Nevada** [ACM89].

**nine** [Par89]. **November** [ACM89].

**number** [WW89]. **numerical** [SHO<sup>+</sup>89].

**O** [Cro89]. **objects** [Cha89]. **ocean** [LSS89].

**odd** [Lev89]. **odd-even** [Lev89].

**operations** [RJ89, TKA89]. **operators**

[OJ89]. **Optical** [Hua89]. **Optimal**

[Fre89, Par89]. **order** [MJ89].

**PAGE** [dEV89]. **PAGE-AHEAD** [dEV89].

**Parallel** [Iye89, JH89, LC89, Lev89, Mv89,  
 OS89, Sha89, WL89, AG89a, And89,  
 BKK<sup>+</sup>89, BPA89, CP89, Cro89, EGP89,  
 FHS89, GD89b, MJ89, PU89, PC89,  
 PWY<sup>+</sup>89, PBP89, PRWB89, SMC89,  
 YHKM89, ZWM89, ZRV89]. **parallelization**

[ALTB89]. **Parallelizing** [Car89, RS89].

**ParaScope** [BKK<sup>+</sup>89]. **particle**

[BCS<sup>+</sup>89, Dag89]. **particles** [WW89].

**partitioning** [BNR89, PBP89]. **Pascal**

[TKA89]. **peak** [CJ89]. **pentadiagonal**

[Lev89]. **Performance** [HK89, And89,  
 AG89b, BW89, CJ89, Fat89, GGJ89, Hei89,  
 NNIL89, Sha89, SMC89, TM89]. **physics**

[FHS89, WBP<sup>+</sup>89]. **pipelined** [RJ89].

**pivoting** [Bis89a]. **Practical** [FHS89].

**preceding** [YHKM89]. **prediction**

[AG89b, ZWM89]. **principle** [BNR89].

**probability** [Hei89]. **problem**

[PC89, Zia89]. **problems** [OS89].

**Proceedings** [ACM89]. **processing**

[PWY<sup>+</sup>89, PRWB89, SMC89, YHKM89].

**processor** [GBSS89, JCC89, SR89, WL89].

**processors** [BW89, BPA89, SHO<sup>+</sup>89].  
**produce** [RJ89]. **product** [Mv89].  
**program** [BNR89, GBSS89]. **programming** [BKK<sup>+</sup>89, JH89]. **Programs** [dEV89, CT89, EGP89, RS89]. **Protein** [ZWM89]. **purpose** [PWY<sup>+</sup>89]. **pyramid** [HJ89].

**Q** [Fat89]. **QCD** [BBGJ89]. **QCDPAX** [SHO<sup>+</sup>89]. **QR** [Bis89a]. **quadratic** [PC89].  
**quantity** [BW89]. **quantum** [SHO<sup>+</sup>89].

**radar** [GBSS89]. **radix** [JKFM89]. **radix-2** [JKFM89]. **rank** [CJ89]. **rank-n** [CJ89].  
**rarefied** [Dag89]. **rate** [MJ89]. **Realities** [PRWB89]. **reconfigurable** [SMCG89].  
**recurrences** [ALTB89]. **reduction** [SR89].  
**Refined** [KKK89]. **relational** [TKA89].  
**relativistic** [HD89]. **Reno** [ACM89].  
**representation** [ESH89]. **resource** [BAC<sup>+</sup>89]. **restricted** [Bis89a]. **results** [Cal89]. **return** [GML89]. **rise** [GML89].  
**robot** [LC89].

**scalability** [ZRV89]. **scheduling** [SK89].  
**scheme** [YHKM89]. **scientific** [Car89].  
**searching** [OS89]. **security** [Bis89b].  
**selection** [Fre89]. **sequence** [Iye89].  
**service** [Lek89]. **shared** [RJ89, WWS89].  
**shared-memory** [WWS89]. **SIMD** [CC89, CHK89, Sig89]. **simulation** [Dag89, FYH89, GBSS89, MHHG89, PBP89, SHO<sup>+</sup>89, WWS89, WW89]. **simulations** [WBP<sup>+</sup>89]. **simulator** [BPA89]. **single** [BNR89]. **singular** [Bak89, CC89]. **soil** [GML89]. **solution** [Lev89]. **solver** [CJ89, CHK89]. **Some** [Cal89]. **sorting** [GD89b, Par89]. **space** [HD89, Wol89].  
**sparse** [SR89]. **speed** [BW89, HK89].  
**spreading** [WL89]. **state** [Sig89]. **Static** [DSOZ89]. **strategy** [SK89]. **stress** [MJ89].  
**string** [TKA89]. **structure** [ZWM89].  
**Study** [NE89, BCS<sup>+</sup>89, OJ89, Sig89]. **super** [Sha89]. **supercomputer** [WMT89, WBP<sup>+</sup>89]. **Supercomputers** [LSS89, Fat89, FT89, KC89].  
**Supercomputing** [ACM89, FYH89, Bis89b, FHS89, HT89, KM89, NNIL89].  
**superconcurrency** [Fre89]. **switched** [Hei89]. **SX** [WMT89]. **SX-3** [WMT89]. **SX-3/SX-X** [WMT89]. **SX-X** [WMT89].  
**synchronization** [DSOZ89, EGP89].  
**system** [BAC<sup>+</sup>89, MA89, NNIL89, SK89, WMT89, YHKM89]. **system-Harray** [YHKM89]. **systems** [CP89, Gro89, Lev89, Zia89, ZRV89].

**task** [CP89, JCC89]. **techniques** [CP89].  
**technology** [WMT89]. **temperature** [GML89]. **tensor** [Mv89]. **theory** [Fre89].  
**three** [Fat89, OJ89]. **three-dimensional** [OJ89]. **tight** [ALTB89]. **tiling** [Wol89].  
**time** [HD89]. **tool** [AG89b, BKK<sup>+</sup>89, Che89]. **transport** [BCS<sup>+</sup>89]. **transputers** [GD89b]. **Tuning** [CJ89]. **Type** [Lek89].

**unfolding** [YHKM89]. **UNIX** [BAC<sup>+</sup>89, Bis89b]. **unstructured** [CHK89].  
**Update** [KKK89, CJ89]. **use** [KC89].  
**Using** [dEV89, BNR89, Bis89a, BCS<sup>+</sup>89, Che89, Lev89, PWY<sup>+</sup>89].

**value** [Bak89, CC89]. **Vector** [AG89a, Fat89, SHO<sup>+</sup>89, WWS89].  
**Vectorization** [BCS<sup>+</sup>89, ALTB89, TKA89].  
**vectorized** [WW89]. **Vectorizing** [NE89].  
**versatile** [GD89a]. **vision** [CP89].  
**Visualization** [WBP<sup>+</sup>89, PU89].  
**Visualizing** [HD89]. **VLIW** [DSOZ89].  
**VLSI** [LC89].

**wavefront** [CJ89]. **wide** [Lek89].

**X** [WMT89].

**Y-MP** [Fat89].

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