

# Weimin Zheng

## List of Publications by Year in descending order

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132  
papers

1,093  
citations

687363

13  
h-index

642732

23  
g-index

132  
all docs

132  
docs citations

132  
times ranked

967  
citing authors

#	ARTICLE	IF	CITATIONS
1	A system hierarchy for brain-inspired computing. Nature, 2020, 586, 378-384.	27.8	88
2	Performance Analysis of GPU-Based Convolutional Neural Networks. , 2016, , .		83
3	10M-Core Scalable Fully-Implicit Solver for Nonhydrostatic Atmospheric Dynamics. , 2016, , .		69
4	OpenUH: an optimizing, portable OpenMP compiler. Concurrency Computation Practice and Experience, 2007, 19, 2317-2332.	2.2	55
5	PHANTOM. ACM SIGPLAN Notices, 2010, 45, 305-314.	0.2	49
6	Load prediction using hybrid model for computational grid. , 2007, , .		45
7	Accelerate RDP RAID-6 Scaling by Reducing Disk I/Os and XOR Operations. IEEE Transactions on Computers, 2015, 64, 32-44.	3.4	33
8	MPIWiz. , 2009, , .		32
9	Design a cloud storage platform for pervasive computing environments. Cluster Computing, 2010, 13, 141-151.	5.0	32
10	Rethinking RAID-5 Data Layout for Better Scalability. IEEE Transactions on Computers, 2014, 63, 2816-2828.	3.4	29
11	Taming Hardware Event Samples for Precise and Versatile Feedback Directed Optimizations. IEEE Transactions on Computers, 2013, 62, 376-389.	3.4	27
12	FACT. , 2009, , .		26
13	Identifying Node Role in Social Network Based on Multiple Indicators. PLoS ONE, 2014, 9, e103733.	2.5	26
14	Cache Sharing Management for Performance Fairness in Chip Multiprocessors. , 2009, , .		23
15	Building Semi-Elastic Virtual Clusters for Cost-Effective HPC Cloud Resource Provisioning. IEEE Transactions on Parallel and Distributed Systems, 2016, 27, 1915-1928.	5.6	23
16	A Knowledge-based Continuous Double Auction Model for Cloud Market. , 2010, , .		19
17	Performance Prediction for Large-Scale Parallel Applications Using Representative Replay. IEEE Transactions on Computers, 2016, 65, 2184-2198.	3.4	19
18	Adaptive Hybrid Model for Long Term Load Prediction in Computational Grid. , 2008, , .		18

#	ARTICLE	IF	CITATIONS
19	LogGPO: An accurate communication model for performance prediction of MPI programs. Science in China Series F: Information Sciences, 2009, 52, 1785-1791.	1.1	18
20	Enabling Cloud Storage to Support Traditional Applications. , 2010, , .		15
21	&#x00B5;LibCloud: Providing High Available and Uniform Accessing to Multiple Cloud Storages. , 2012, , .		15
22	Maotai: View-Oriented Parallel Programming on CMT Processors. , 2008, , .		14
23	Defend Against Denial of Service Attack with VMM. , 2009, , .		14
24	Guarantee Strict Fairness and Utilize Prediction Better in Parallel Job Scheduling. IEEE Transactions on Parallel and Distributed Systems, 2014, 25, 971-981.	5.6	14
25	CaCo: An Efficient Cauchy Coding Approach for Cloud Storage Systems. IEEE Transactions on Computers, 2016, 65, 435-447.	3.4	14
26	Design and Implementation of an SAN System Based on the Fiber Channel Protocol. IEEE Transactions on Computers, 2005, 54, 439-448.	3.4	13
27	Optimizing write operation on replica in data grid. Science China Information Sciences, 2011, 54, 1-11.	4.3	13
28	Parallel Algorithm and Implementation for Realtime Dynamic Simulation of Power System. , 0, , .		11
29	Xscale: Online X-Code RAID-6 Scaling Using Lightweight Data Reorganization. IEEE Transactions on Parallel and Distributed Systems, 2016, 27, 3687-3700.	5.6	11
30	ASLOP: A field-access affinity-based structure data layout optimizer. Science China Information Sciences, 2011, 54, 1769-1783.	4.3	10
31	Understanding Locality-Awareness in Peer-to-Peer Systems. Parallel Processing (ICPP), Workshop, Proceedings of the International Conference on, 2008, , .	0.0	9
32	Redistribute Data to Regain Load Balance during RAID-4 Scaling. IEEE Transactions on Parallel and Distributed Systems, 2015, 26, 219-229.	5.6	9
33	An Efficient In-Memory Checkpoint Method and its Practice on Fault-Tolerant HPL. IEEE Transactions on Parallel and Distributed Systems, 2018, 29, 758-771.	5.6	9
34	Research trend of large-scale supercomputers and applications from the TOP500 and Gordon Bell Prize. Science China Information Sciences, 2020, 63, 1.	4.3	9
35	Employing Checkpoint to Improve Job Scheduling in Large-Scale Systems. Lecture Notes in Computer Science, 2013, , 36-55.	1.3	9
36	CUDA-Zero: a framework for porting shared memory GPU applications to multi-GPUs. Science China Information Sciences, 2012, 55, 663-676.	4.3	8

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37	Design and implementation of a storage virtualization system based on SCSI target simulator in SAN. Tsinghua Science and Technology, 2005, 10, 122-127.	6.1	7
38	Hybrid decomposition method in parallel molecular dynamics simulation based on SMP cluster architecture. Tsinghua Science and Technology, 2005, 10, 183-188.	6.1	7
39	Design and Implementation of an Out-of-Band Virtualization System for Large SANs. IEEE Transactions on Computers, 2007, 56, 1654-1665.	3.4	7
40	The Application of Virtual Machines on System Security. , 2009, , .		7
41	An introduction to Tsinghua Cloud. Science China Information Sciences, 2010, 53, 1481-1486.	4.3	7
42	Design and implementation of a low-overhead file checkpointing approach. , 2000, , .		6
43	Granary: architecture of object oriented Internet storage service. , 0, , .		6
44	Tree partition based parallel frequent pattern mining on shared memory systems. , 2006, , .		6
45	Weibo, and a Tale of Two Worlds. , 2015, , .		6
46	PDFS: Partially Dedupped File System for Primary Workloads. IEEE Transactions on Parallel and Distributed Systems, 2017, 28, 863-876.	5.6	6
47	An adaptive task-level fault-tolerant approach to Grid. Journal of Supercomputing, 2010, 51, 97-114.	3.6	5
48	A Performance Analytical Approach Based on Queuing Model for Network-on-Chip. , 2010, , .		5
49	HyConv: Accelerating Multi-Phase CNN Computation by Fine-Grained Policy Selection. IEEE Transactions on Parallel and Distributed Systems, 2019, 30, 388-399.	5.6	5
50	High-capacity ride-sharing via shortest path clustering on large road networks. Journal of Supercomputing, 2021, 77, 4081-4106.	3.6	5
51	Design of an I/O balancing file system on Web server clusters. , 0, , .		4
52	A NOVEL NUMERICAL APPROACH OF COMPUTING AMERICAN OPTION. International Journal of Foundations of Computer Science, 2002, 13, 685-693.	1.1	4
53	Building a portable file system for heterogeneous clusters. Tsinghua Science and Technology, 2005, 10, 108-114.	6.1	4
54	Model of Network-on-Chip routers and performance analysis. IEICE Electronics Express, 2011, 8, 986-993.	0.8	4

#	ARTICLE	IF	CITATIONS
55	Updating preconditioner for iterative method in time domain simulation of power systems. Science China Technological Sciences, 2011, 54, 1024-1034.	4.0	4
56	Dynamically Optimize Multicast Tree Structure. , 2006, , .		3
57	Structure-independent disaster recovery: Concept, architecture and implementations. Science in China Series F: Information Sciences, 2009, 52, 813-823.	1.1	3
58	Distributed Metadata Management Based on Hierarchical Bloom Filters in Data Grid. , 2009, , .		3
59	Efficient Monte Carlo-based options pricing on graphics processors and its optimizations. Science China Information Sciences, 2010, 53, 1703-1712.	4.3	3
60	Best Position Algorithms for Top-k Query Processing in Highly Distributed Environments. , 2010, , .		3
61	Automatically constructing trusted cluster computing environment. Journal of Supercomputing, 2011, 55, 51-68.	3.6	3
62	BIRDS: A Bare-Metal Recovery System for Instant Restoration of Data Services. IEEE Transactions on Computers, 2014, 63, 1392-1407.	3.4	3
63	APMT: an automatic hardware counter-based performance modeling tool for HPC applications. CCF Transactions on High Performance Computing, 2020, 2, 135-148.	1.7	3
64	Granularity analysis for exploiting adaptive parallelism of declarative programs on multiprocessors. Journal of Computer Science and Technology, 1994, 9, 144-152.	1.5	2
65	An effective file migration algorithm in cluster file systems. , 0, , .		2
66	TH-CluFS: an open platform cluster file system. , 0, , .		2
67	PARALLEL COMPUTING METHOD OF VALUING FOR MULTI-ASSET EUROPEAN OPTION. International Journal of Information Technology and Decision Making, 2004, 03, 575-581.	3.9	2
68	Parallel Module Network Learning on Distributed Memory Multiprocessors. , 0, , .		2
69	PeerWindow: An Efficient, Heterogeneous, and Autonomic Node Collection Protocol. , 0, , .		2
70	Grid Enabled Data Integration Framework for Bioinformatics Research. , 2006, , .		2
71	Empirical Performance Evaluation of Message Passing Programs Running in Virtual Machines. , 2008, , .		2
72	On Virtual-Machine-Based Windows File Reads: A Performance Study. , 2008, , .		2

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73	An Heuristic Method for Web-Service Program Security Testing. , 2009, , .		2
74	Task Partition Comparison between Multi-core System and GPU. , 2010, , .		2
75	CG-Resync: Conversion-guided resynchronization for a SSD-based RAID array. , 2013, , .		2
76	Radio: Accelerating Disk-Based Graph Processing by Reducing Disk I/Os. IEEE Transactions on Computers, 2019, 68, 414-425.	3.4	2
77	SmartTuning: Selecting Hyper-Parameters of a ConvNet System for Fast Training and Small Working Memory. IEEE Transactions on Parallel and Distributed Systems, 2021, 32, 1690-1701.	5.6	2
78	A review of basic software for brain-inspired computing. CCF Transactions on High Performance Computing, 2022, 4, 34-42.	1.7	2
79	BUSTER: an integrated debugger for PVM. , 0, , .		1
80	Checkpointing and rollback recovery for network of workstations. Science in China Series D: Earth Sciences, 1999, 42, 207-214.	0.9	1
81	MOT: memory online tracing of Web information system. , 0, , .		1
82	A Checkpointing/Recovery System for MPI Applications on Cluster of IA-64 Computers. , 0, , .		1
83	Parallelization of module network structure learning and performance tuning on SMP. , 2006, , .		1
84	On Interoperability: The Execution Management Perspective Based on ChinaGrid Support Platform*. , 2006, , .		1
85	Design and implementation of SCSI target emulator. Tsinghua Science and Technology, 2006, 11, 38-43.	6.1	1
86	B3A: Prompting cooperation among rational participants in P2P bulk file sharing environments. Tsinghua Science and Technology, 2006, 11, 44-49.	6.1	1
87	SCSI target simulator based on FC and IP protocols in TH-MSNS. Tsinghua Science and Technology, 2006, 11, 589-596.	6.1	1
88	VirtualCluster: Customizing the Cluster Environment through Virtual Machines. , 2008, , .		1
89	Exploring the Emerging Applications for Transactional Memory. , 2008, , .		1
90	Amigo File System: CAS Based Storage Management for a Virtual Cluster System. , 2009, , .		1

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91	Improving grid performance by dynamically deploying applications. Concurrency Computation Practice and Experience, 2010, 22, 1945-1967.	2.2	1
92	SMON: Self-Managed Overlay Networks for managing distributed applications. , 2010, , .		1
93	Combining topic models and string kernel for deep web categorization. , 2010, , .		1
94	MiF: Mitigating the Intra-file Fragmentation in Parallel File System. , 2011, , .		1
95	MassStore: A low bandwidth, high De-duplication efficiency network backup system. , 2012, , .		1
96	A Consistent Backup Mechanism for Disaster Recovery that Using Container Based Virtualization. , 2012, , .		1
97	Employing intelligence in object-based storage devices to provide attribute-based file access. Science China Information Sciences, 2013, 56, 1-10.	4.3	1
98	BirdStore: Block-grained snapshot management system for instant disaster recovery. , 2014, , .		1
99	An approach of processor core customization for stencil computation. , 2014, , .		1
100	CHARM: A CHECKPOINT-BASED ROLLBACK RECOVERY AND PROCESS MIGRATION SYSTEM FOR CLUSTER OF WORKSTATIONS. , 2000, , .		1
101	Garbage collection and data recovery for N2DB. Tsinghua Science and Technology, 2022, 27, 630-641.	6.1	1
102	Research on cluster of workstations. , 0, , .		0
103	A class-based garbage collector for network server applications. , 0, , .		0
104	TODS: cluster object storage platform designed for scalable services. , 0, , .		0
105	Interactive and symbolic data dependence analysis based on ranges of expressions. Journal of Computer Science and Technology, 2002, 17, 160-171.	1.5	0
106	Grid computing pool and its framework. , 0, , .		0
107	SOCIAL CHOICE FOR DATA FUSION. International Journal of Information Technology and Decision Making, 2004, 03, 619-631.	3.9	0
108	Parallelization of Bayesian network based snps pattern analysis and performance characterization on SMP/HT. , 0, , .		0

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109	Design and implementation of a fibre channel target driver supporting SCSI. Tsinghua Science and Technology, 2005, 10, 115-121.	6.1	0
110	A sliced-finite difference method for the American option. IIE Transactions, 2005, 37, 939-944.	2.1	0
111	ImDeploy: A Tool for Global-Scale Service Deployment on Peer-to-Peer Networks. , 0, , .		0
112	UGE4B: An Universal Grid Environment for Bioinformatics Research. , 2006, , .		0
113	Achieving Reliability through Replication in a Wide-Area Network DHT Storage System. Parallel Processing (ICPP), Proceedings of the International Symposium, 2007, , .	0.0	0
114	A Component Based Interoperability Solution over Existing Grid Middleware. , 2007, , .		0
115	Adapting to Application Workflow in Processing Data Integration Queries. , 2007, , .		0
116	A Grid Workflow Framework with High Scalability and Usability. , 2008, , .		0
117	Time-Lapse Seismic Parallel Forward Modeling with Xen Virtualization. , 2008, , .		0
118	A Software-Controlled Cache Coherence Optimization for Snoopy-Based SMP System. , 2009, , .		0
119	Optimized mapping of pixels into memory for H.264/AVC decoding. IEICE Electronics Express, 2009, 6, 283-289.	0.8	0
120	Codec-on-Demand Based on User-Level Virtualization. IEICE Transactions on Information and Systems, 2009, E92-D, 2422-2429.	0.7	0
121	Predicting the behavior of large scale P2P systems by parallel discrete event simulation. Science China Information Sciences, 2010, 53, 1109-1121.	4.3	0
122	Task Optimization Based on CPU Pipeline Technique in Multicore System. , 2011, , .		0
123	A user-space file system for on-demand legacy desktop software. Science China Information Sciences, 2011, 54, 1142-1150.	4.3	0
124	Improving the System Capacity by Client Cooperation in Distributed File Service. , 2012, , .		0
125	AIP: a tool for flexible and transparent data management. Science China Information Sciences, 2013, 56, 1-11.	4.3	0
126	Improving cis-regulatory elements modeling by consensus scaffolded mixture models. Science China Information Sciences, 2013, 56, 1-11.	4.3	0



#	ARTICLE	IF	CITATIONS
127	HW/SW approaches to accelerate GRAPES in an FU array. , 2013, , .		0
128	Flex: Flexible and Energy Efficient Scheduling for Big Data Storage. , 2015, , .		0
129	Characterizing and optimizing TPC-C workloads on large-scale systems using SSD arrays. Science China Information Sciences, 2016, 59, 1.	4.3	0
130	PREFETCHING AND CACHING METADATA IN A DISTRIBUTED NFS SERVER. , 2000, , .		0
131	EFFICIENT PARALLEL ALGORITHM FOR LARGE-SCALE MOLECULAR DYNAMICS SIMULATION IN MICROSCALE THERMOPHYSICS. , 2002, , .		0
132	Multi-Clock Snapshot Isolation Concurrency Control for NVM Database. Tsinghua Science and Technology, 2022, 27, 925-938.	6.1	0