Guang-Wen Yang

List of Publications by Year
in descending order

122	4,730	586496 16	198040 52
papers	citations	h-index	g-index

122	122	122	6186
all docs	docs citations	times ranked	citing authors

#	Article	IF	Citations
1	Optimization of Reactive Force Field Simulation: Refactor, Parallelization, and Vectorization for Interactions. IEEE Transactions on Parallel and Distributed Systems, 2022, 33, 359-373.	4.0	4
2	A fully-customized dataflow engine for 3D earthquake simulation with a complex topography. Science China Information Sciences, 2022, 65, 1.	2.7	1
3	FROM-GLC Plus: toward near real-time and multi-resolution land cover mapping. GIScience and Remote Sensing, 2022, 59, 1026-1047.	2.4	29
4	The Deep Learning Compiler: A Comprehensive Survey. IEEE Transactions on Parallel and Distributed Systems, 2021, 32, 708-727.	4.0	83
5	Towards efficient tile low-rank GEMM computation on sunway many-core processors. Journal of Supercomputing, 2021, 77, 4533-4564.	2.4	2
6	Input-aware Sparse Tensor Storage Format Selection for Optimizing MTTKRP. IEEE Transactions on Computers, 2021, , 1-1.	2.4	5
7	The immunodominant and neutralization linear epitopes for SARS-CoV-2. Cell Reports, 2021, 34, 108666.	2.9	65
8	Towards efficient canonical polyadic decomposition on sunway many-core processor. Information Sciences, 2021, 549, 221-248.	4.0	2
9	Phase-Programmable Gaussian Boson Sampling Using Stimulated Squeezed Light. Physical Review Letters, 2021, 127, 180502.	2.9	208
10	CUBIST: High-Quality 360-Degree Video Streaming Services via Tile-based Edge Caching and FoV-Adaptive Prefetching. , 2021, , .		1
11	Accelerating Sparse Cholesky Factorization on Sunway Manycore Architecture. IEEE Transactions on Parallel and Distributed Systems, 2020, 31, 1636-1650.	4.0	9
12	Millimeter-Scale and Billion-Atom Reactive Force Field Simulation on Sunway Taihulight. IEEE Transactions on Parallel and Distributed Systems, 2020, 31, 2954-2967.	4.0	12
13	Implementation and performance of Barnes-hut n-body algorithm on extreme-scale heterogeneous many-core architectures. International Journal of High Performance Computing Applications, 2020, 34, 615-628.	2.4	4
14	Molecular architecture of the luminal ring of the Xenopus laevis nuclear pore complex. Cell Research, 2020, 30, 532-540.	5.7	51
15	Tuning a general purpose software cache library for TaihuLightâ€™s SW26010 processor. CCF Transactions on High Performance Computing, 2020, 2, 164-182.	1.1	2
16	High performance reconfigurable computing for numerical simulation and deep learning. CCF Transactions on High Performance Computing, 2020, 2, 196-208.	1.1	2
17	Quantum-Teleportation-Inspired Algorithm for Sampling Large Random Quantum Circuits. Physical Review Letters, 2020, 124, 080502.	2.9	14
18	Efficient AES implementation on Sunway TaihuLight supercomputer: A systematic approach. Journal of Parallel and Distributed Computing, 2020, 138, 178-189.	2.7	6

#	Article	IF	Citations
19	Quantum computational advantage using photons. Science, 2020, 370, 1460-1463.	6.0	1,250
20	Parallelizing cryo-EM 3D reconstruction on GPU cluster with a partitioned and streamed model. , 2019, , .		1
21	Million-Core-Scalable Simulation of the Elastic Migration Algorithm on Sunway TaihuLight Supercomputer. , 2019, , .		4
22	SunwayLB: Enabling Extreme-Scale Lattice Boltzmann Method Based Computing Fluid Dynamics Simulations on Sunway TaihuLight. , 2019, , .		12
23	Extreme-scale earthquake simulations on Sunway TaihuLight. CCF Transactions on High Performance Computing, 2019, 1, 14-24.	1.1	1
24	Large-scale Parallel Design for Cryo-EM Structure Determination on Heterogeneous Many-core Architectures. , 2019, , .		1
25	Towards Tile Based Distribution Simulation in Immersive Video Streaming. , 2019, , .		2
26	swTensor: accelerating tensor decomposition on Sunway architecture. CCF Transactions on High Performance Computing, 2019, 1, 161-176.	1.1	2
27	SEE Sensitivity Evaluation for Commercial 16 nm SRAM-FPGA. Electronics (Switzerland), 2019, 8, 1531.	1.8	9
28	Towards tile based distribution simulation in immersive video streaming. , 2019, , .		1
29	Accelerating MapReduce on Commodity Clusters: An SSD-Empowered Approach. IEEE Transactions on Big Data, 2018, 4, 396-407.	4.4	2
30	Simulating the Wenchuan Earthquake with Accurate Surface Topography on Sunway TaihuLight. , 2018, , .		22
31	swCaffe: A Parallel Framework for Accelerating Deep Learning Applications on Sunway TaihuLight. , 2018, , .		26
32	Application software beyond exascale: challenges and possible trends. Frontiers of Information Technology and Electronic Engineering, 2018, 19, 1267-1272.	1.5	4
33	Redesigning LAMMPS for Peta-Scale and Hundred-Billion-Atom Simulation on Sunway TaihuLight. , 2018, , .		44
34	Large-Scale Hierarchical k-means for Heterogeneous Many-Core Supercomputers. , 2018, , .		9
35	A particle-filter framework for robust cryo-EM 3D reconstruction. Nature Methods, 2018, 15, 1083-1089.	9.0	41
36	Taming the "Monster": Overcoming Program Optimization Challenges on SW26010 Through Precise Performance Modeling. , 2018, , .		11

#	Article	IF	Citations
37	A fast method for particle picking in cryo-electron micrographs based on fast R-CNN. AIP Conference Proceedings, 2017, , .	0.3	31
38	18.9-Pflops nonlinear earthquake simulation on Sunway TaihuLight. , 2017, , .		77
39	Redesigning CAM-SE for peta-scale climate modeling performance and ultra-high resolution on Sunway TaihuLight. , 2017, , .		41
40	swDNN: A Library for Accelerating Deep Learning Applications on Sunway TaihuLight. , 2017, , .		62
41	Solving global shallow water equations on heterogeneous supercomputers. PLoS ONE, 2017, 12, e0172583.	1.1	2
42	10M-Core Scalable Fully-Implicit Solver for Nonhydrostatic Atmospheric Dynamics. , 2016, , .		69
43	Refactoring and Optimizing the Community Atmosphere Model (CAM) on the Sunway TaihuLight Supercomputer. , 2016, , .		27
44	F-CNN: An FPGA-based framework for training Convolutional Neural Networks. , 2016, , .		36
45	Graph-Oriented Code Transformation Approach for Register-Limited Stencils on GPUs. , 2016, , .		0
46	The Sunway TaihuLight supercomputer: system and applications. Science China Information Sciences, 2016, 59, 1.	2.7	340
47	Czip: A Fast Lossless Compression Algorithm for Climate Data. International Journal of Parallel Programming, 2016, 44, 1248-1267.	1.1	5
48	A parallel finite-element time-domain method for transient electromagnetic simulation. Geophysics, 2015, 80, E213-E224.	1.4	22
49	Targeted Mutation: A Novel Mutation Strategy for Differential Evolution. , 2015, , .		5
50	ActCap: Accelerating MapReduce on heterogeneous clusters with capability-aware data placement. , 2015, , .		18
51	Optimizing Residue Number Reverse Converters through Bitwise Arithmetic on FPGAs. , 2015, , .		0
52	Solving the Global Atmospheric Equations through Heterogeneous Reconfigurable Platforms. ACM Transactions on Reconfigurable Technology and Systems, 2015, 8, 1-16.	1.9	13
53	Data Reduction Analysis for Climate Data Sets. International Journal of Parallel Programming, 2015, 43, 508-527.	1.1	4
54	A highly-efficient and green data flow engine for solving euler atmospheric equations. , 2014, , .		16

#	Article	IF	Citations
55	Patra: Parallel tree-reweighted message passing architecture. , 2014, , .		1
56	A High Performance Compression Method for Climate Data. , 2014, , .		7
57	Evaluating multi-core and many-core architectures through accelerating the three-dimensional Laxâ€“Wendroff correction stencil. International Journal of High Performance Computing Applications, 2014, 28, 301-318.	2.4	9
58	An approach of processor core customization for stencil computation. , 2014, , .		1
59	Interpolation oriented parallel communication to optimize coupling in earth system modeling. Frontiers of Computer Science, 2014, 8, 693-708.	1.6	3
60	Adaptive Indexing for Distributed Array Processing. , 2014, , .		1
61	A fully pipelined probability density function engine for Gaussian Copula model. Tsinghua Science and Technology, 2014, 19, 194-202.	4.1	2
62	The flexible global ocean-atmosphere-land system model, Grid-point Version 2: FGOALS-g2. Advances in Atmospheric Sciences, 2013, 30, 543-560.	1.9	253
63	Preliminary evaluations of FGOALS-g2 for decadal predictions. Advances in Atmospheric Sciences, 2013, 30, 674-683.	1.9	18
64	Evaluation of grid-point atmospheric model of IAP LASG version 2 (GAMIL2). Advances in Atmospheric Sciences, 2013, 30, 855-867.	1.9	75
65	An FPGA-Based Data Flow Engine for Gaussian Copula Model. , 2013, , .		1
66	A Novel Method to Save and Reuse Virtual Computing Environment. , 2013, , .		0
67	tpNFS: Efficient Support of Small Files Processing over pNFS. , 2013, , .		1
68	Finer resolution observation and monitoring of global land cover: first mapping results with Landsat TM and ETM+ data. International Journal of Remote Sensing, 2013, 34, 2607-2654.	1.3	1,263
69	Understanding Data Characteristics and Access Patterns in a Cloud Storage System. , 2013, , .		15
70	EDTS: An Extensible Data Transmission Service for the Internet. , 2013, , .		0
71	Optimize Multidimensional Arrays Queries with Heterogeneous Replica Method. , 2013, , .		1
72	Global Atmospheric Simulation on a Reconfigurable Platform. , 2013, , .		0

#	Article	IF	Citations
73	Subdomain Mapping Approach to Enhance the Coupling in Earth System Modeling. , 2013, , .		0
74	CFIO: A Fast I/O Library for Climate Models. , 2013, , .		4
75	Accelerating solvers for global atmospheric equations through mixed-precision data flow engine. , 2013, , .		25
76	Macss: A metadata-aware combo storage system. , 2012, , .		4
77	The Chunk-Locality Index: An Efficient Query Method for Climate Datasets. , 2012, , .		3
78	Droplet: A Distributed Solution of Data Deduplication. , 2012, , .		29
79	Revisiting finite difference and spectral migration methods on diverse parallel architectures. Computers and Geosciences, 2012, 43, 187-196.	2.0	6
80	Job failures in high performance computing systems: A large-scale empirical study. Computers and Mathematics With Applications, 2012, 63, 365-377.	1.4	24
81	Making Service Granularity Right: An Assistant Approach Based on Business Process Analysis. , 2011, , .		3
82	A Two-Layered Replica Management Method. , 2011, , .		2
83	Efficient Nonserial Polyadic Dynamic Programming on the Cell Processor. , 2011, , .		9
84	FastDu: Efficient directory summaries harvest by tracking file system changes. Tsinghua Science and Technology, 2011, 16, 337-343.	4.1	0
85	Automatically constructing trusted cluster computing environment. Journal of Supercomputing, 2011, 55, 51-68.	2.4	3
86	Optimizing write operation on replica in data grid. Science China Information Sciences, 2011, 54, 1-11.	2.7	13
87	Optimization of sub-query processing in distributed data integration systems. Journal of Network and Computer Applications, 2011, 34, 1035-1042.	5.8	23
88	Efficient Monte Carlo-based options pricing on graphics processors and its optimizations. Science China Information Sciences, 2010, 53, 1703-1712.	2.7	3
89	Service-oriented execution model supporting data sharing andÂadaptive query processing. Cluster Computing, 2010, 13, 127-140.	3.5	0
90	An adaptive task-level fault-tolerant approach to Grid. Journal of Supercomputing, 2010, 51, 97-114.	2.4	5

#	Article	IF	Citations
91	Improving grid performance by dynamically deploying applications. Concurrency Computation Practice and Experience, 2010, 22, 1945-1967.	1.4	1
92	Distributed bandwidth allocation based on alternating evolution algorithm. Journal of Parallel and Distributed Computing, 2010, 70, 547-557.	2.7	2
93	Using Memcached to Promote Read Throughput in Massive Small-File Storage System. , 2010, , .		9
94	Best Position Algorithms for Top-k Query Processing in Highly Distributed Environments. , 2010, , .		3
95	A Knowledge-based Continuous Double Auction Model for Cloud Market. , 2010, , .		19
96	CampusWare: An Easy-to-Use, Efficient and Portable Grid Middleware for Compute-Intensive Applications. , 2009, , .		0
97	FRB: File Resource Broker for Integrating Heterogeneous File Resources. , 2009, , .		0
98	A Fast High-Dimensional Tool for Detecting Anomalistic Nodes in Large Scale Systems (LSAND). , 2009, , .		0
99	Adaptive Hybrid Model for Long Term Load Prediction in Computational Grid. , 2008, , .		18
100	Design More Usable and Reliable Large-Scale Software Systems: A New Approach Based on P2P, SOA and Web 2.0. , 2008, , .		0
101	End-to-End Congestion Control for High Speed Networks Based on Population Ecology Models. , 2008, , .		3
102	A Grid Workflow Framework with High Scalability and Usability. , 2008, , .		0
103	ZettaDS: A Light-weight Distributed Storage System for Cluster. , 2008, , .		10
104	Dynamic Load-Balancing and High Performance Communication in Jcluster. , 2007, , .		5
105	Load prediction using hybrid model for computational grid. , 2007, , .		45
106	A Component Based Interoperability Solution over Existing Grid Middleware. , 2007, , .		0
107	Improving the Convergence and Stability of Congestion Control Algorithm. , 2007, , .		8
108	Adapting to Application Workflow in Processing Data Integration Queries. , 2007, , .		0

#	Article	IF	Citations
109	An optimal replication strategy for data grid systems. Frontiers of Computer Science, 2007, 1, 338-348.	0.6	10
110	A Transaction Model for Service Grid Environment and Implementation Considerations. , 2006, , .		4
111	Towards a Transaction Model for Services in Grid Environment. , 2006, , .		0
112	B3A: Prompting cooperation among rational participants in P2P bulk file sharing environments. Tsinghua Science and Technology, 2006, 11, 44-49.	4.1	1
113	Jcluster: an efficient Java parallel environment on a large-scale heterogeneous cluster. Concurrency Computation Practice and Experience, 2006, 18, 1541-1557.	1.4	15
114	General Running Service: An Execution Framework for Executing Legacy Program on Grid. , 2006, , .		7
115	Building a portable file system for heterogeneous clusters. Tsinghua Science and Technology, 2005, 10, 108-114.	4.1	4
116	Grid Computing in China. Journal of Grid Computing, 2004, 2, 193-206.	2.5	25
117	DSI: distributed service integration for service grid. Journal of Computer Science and Technology, 2003, 18, 474-483.	0.9	6
118	Distributed page ranking in structured P2P networks. , 2003, , .		14
119	Study on topologies of Information Grid. , 0, , .		2
120	Grid computing pool and its framework. , 0, , .		0
121	Stationary and adaptive replication approach to data availability in structured peer-to-peer overlay networks. , 0, , .		0
122	TMSS: a task management and scheduler system in cluster for remote computing service. , 0, , .		2