Geoffrey Fox

List of Publications by Year
in descending order

47 papers	587 citations	1039406 9 h-index	887659 17 g-index
49 all docs	49 docs citations	49 times ranked	406 citing authors

#	Article	IF	Citations
1	Stochastic gradient descent–based support vector machines training optimization on Big Data and HPC frameworks. Concurrency Computation Practice and Experience, 2022, 34, e6292.	1.4	4
2	Nowcasting Earthquakes by Visualizing the Earthquake Cycle with Machine Learning: A Comparison of Two Methods. Surveys in Geophysics, 2022, 43, 483-501.	2.1	30
3	High‐performance iterative dataflow abstractions in Twister2:TSet. Concurrency Computation Practice and Experience, 2022, 34, e5998.	1.4	1
4	Scientific machine learning benchmarks. Nature Reviews Physics, 2022, 4, 413-420.	11.9	43
5	Earthquake Nowcasting with Deep Learning. GeoHazards, 2022, 3, 199-226.	0.8	5
6	Linking clinotypes to phenotypes and genotypes from laboratory test results in comprehensive physical exams. BMC Medical Informatics and Decision Making, 2021, 21, 51.	1.5	2
7	Deep Learning Approaches to Surrogates for Solving the Diffusion Equation for Mechanistic Real-World Simulations. Frontiers in Physiology, 2021, 12, 667828.	1.3	1
8	FURY: advanced scientific visualization. Journal of Open Source Software, 2021, 6, 3384.	2.0	5
9	Nowcasting Earthquakes: Imaging the Earthquake Cycle in California With Machine Learning. Earth and Space Science, 2021, 8, e2021EA001757.	1.1	27
10	Twister2: Design of a big data toolkit. Concurrency Computation Practice and Experience, 2020, 32, e5189.	1.4	14
11	Machine learning surrogates for molecular dynamics simulations of soft materials. Journal of Computational Science, 2020, 42, 101107.	1.5	31
12	High Performance Computing: From Deep Learning to Data Engineering. , 2020, , .		1
13	A Fast, Scalable, Universal Approach For Distributed Data Aggregations. , 2020, , .		3
14	High Performance Data Engineering Everywhere. , 2020, , .		10
15	Data Engineering for HPC with Python. , 2020, , .		8
16	Performance Optimization on Model Synchronization in Parallel Stochastic Gradient Descent Based SVM. , 2019, , .		4
17	Learning Everywhere: Pervasive Machine Learning for Effective High-Performance Computation. , 2019, , .		28
18	Automated Ice-Bottom Tracking of 2D and 3D Ice Radar Imagery Using Viterbi and TRW-S. IEEE Journal of Selected Topics in Applied Earth Observations and Remote Sensing, 2019, 12, 3272-3285.	2.3	6

#	Article	IF	Citations
19	Twister2: TSet High-Performance Iterative Dataflow. , 2019, , .		12
20	Big Data Benchmarks of High-Performance Storage Systems on Commercial Bare Metal Clouds. , 2019, , .		3
21	Advances in big data programming, system software and HPC convergence. Journal of Supercomputing, 2019, 75, 489-493.	2.4	4
22	Understanding ML Driven HPC: Applications and Infrastructure. , 2019, , .		2
23	Scientific Image Restoration Anywhere. , 2019, , .		9
24	Learning Everywhere: A Taxonomy for the Integration of Machine Learning and Simulations. , 2019, , .		5
25	Contributions to High-Performance Big Data Computing. Advances in Parallel Computing, 2019, , .	0.3	2
26	Deep Hybrid Wavelet Network for Ice Boundary Detection in Radra Imagery. , 2018, , .		12
27	Evaluation of Production Serverless Computing Environments. , 2018, , .		99
28	Twister:Net - Communication Library for Big Data Processing in HPC and Cloud Environments. , 2018, , .		10
29	HPBDC 2018 Keynote. , 2018, , .		0
30	Crossover analysis and automated layer-tracking assessment of the extracted DEM of the basal topography of the canadian arctic archipelago ice-cap. , 2018, , .		2
31	Java Technologies for Real‐Time and Embedded Systems (JTRES2013). Concurrency Computation Practice and Experience, 2017, 29, e4089.	1.4	0
32	Automatic Ice Surface and Bottom Boundaries Estimation in Radar Imagery Based on Level-Set Approach. IEEE Transactions on Geoscience and Remote Sensing, 2017, 55, 5115-5122.	2.7	24
33	Low Latency Stream Processing. , 2017, , .		10
34	Special issue on 12th international workshop on Java technologies for real‐time and embedded systems (JTRES2014). Concurrency Computation Practice and Experience, 2017, 29, e4353.	1.4	0
35	Components and Rationale of a Big Data Toolkit Spanning HPC, Grid, Edge and Cloud Computing. , 2017, , .		6
36	DEM extraction of the basal topography of the Canadian archipelago ICE caps via 2D automated layer-tracker. , 2017, , .		3

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37	Task Scheduling in Big Data - Review, Research Challenges, and Prospects. , 2017, , .		10
38	A parallel clustering method combined information bottleneck theory and centroid-based clustering. Journal of Supercomputing, 2014, 69, 452-467.	2.4	31
39	Computational Earthquake Science. Computing in Science and Engineering, 2012, 14, 7-9.	1.2	1
40	Runtime support for scalable programming in Java. Journal of Supercomputing, 2008, 43, 165-182.	2.4	4
41	QuakeSim and the Solid Earth Research Virtual Observatory. Pure and Applied Geophysics, 2006, 163, 2263-2279.	0.8	4
42	iSERVO: Implementing the International Solid Earth Research Virtual Observatory by Integrating Computational Grid and Geographical Information Web Services. Pure and Applied Geophysics, 2006, 163, 2281-2296.	0.8	33
43	Service oriented architecture for VoIP conferencing. International Journal of Communication Systems, 2006, 19, 445-461.	1.6	17
44	Performance of a possible Grid message infrastructure. Concurrency Computation Practice and Experience, 2005, 17, 193-214.	1.4	3
45	Message-based cellular peer-to-peer grids: foundations for secure federation and autonomic services. Future Generation Computer Systems, 2005, 21, 401-415.	4.9	16
46	HP Java: Programming Support for High-Performance Grid-Enabled Applications. International Journal of Parallel, Emergent and Distributed Systems, 2004, 19, 175-193.	0.4	8
47	Twister2 Cross€platform resource scheduler for big data. Concurrency Computation Practice and Experience, 0, , e6502.	1.4	1