Tom Peterka

List of Publications by Year in descending order

27	373	1163117	1281871
papers	citations	8	11
		h-index	g-index

29	29	29	399
all docs	docs citations	times ranked	citing authors

#	Article	IF	Citations
1	The future of scientific workflows. International Journal of High Performance Computing Applications, 2018, 32, 159-175.	3.7	104
2	Damaris. ACM Transactions on Parallel Computing, 2016, 3, 1-43.	1.4	28
3	Ultrafast Three-Dimensional X-ray Imaging of Deformation Modes in ZnO Nanocrystals. Nano Letters, 2017, 17, 1102-1108.	9.1	25
4	Learning in continuous action space for developing high dimensional potential energy models. Nature Communications, 2022, 13, 368.	12.8	21
5	The Parallel Computation of Morse-Smale Complexes. , 2012, , .		20
6	Parallel particle advection and FTLE computation for time-varying flow fields. , 2012, , .		19
7	Scalable Computation of Stream Surfaces on Large Scale Vector Fields. , 2014, , .		14
8	Bredala: Semantic Data Redistribution for In Situ Applications. , 2016, , .		14
9	Ultrafast Three-Dimensional Integrated Imaging of Strain in Core/Shell Semiconductor/Metal Nanostructures. Nano Letters, 2017, 17, 7696-7701.	9.1	14
10	Processing MPI Derived Datatypes on Noncontiguous GPU-Resident Data. IEEE Transactions on Parallel and Distributed Systems, 2014, 25, 2627-2637.	5.6	13
11	Spark-DIY: A Framework for Interoperable Spark Operations with High Performance Block-Based Data Models. , 2018, , .		13
12	Foundations of Multivariate Functional Approximation for Scientific Data. , 2018, , .		12
13	Toward Feature-Preserving 2D and 3D Vector Field Compression. , 2020, , .		12
14	Priority research directions for in situ data management: Enabling scientific discovery from diverse data sources. International Journal of High Performance Computing Applications, 2020, 34, 409-427.	3.7	11
15	Detecting vortices in superconductors: Extracting one-dimensional topological singularities from a discretized complex scalar field. Physical Review E, 2015, 91, 023311.	2.1	10
16	Toward High-Performance Computing and Big Data Analytics Convergence: The Case of Spark-DIY. IEEE Access, 2019, 7, 156929-156955.	4.2	8
17	Automatic Data Filtering for In Situ Workflows. , 2017, , .		7
18	In situ magnetic flux vortex visualization in time-dependent Ginzburg-Landau superconductor simulations. , 2017, , .		7

#	Article	IF	Citations
19	Rational Approximation of Scientific Data. Lecture Notes in Computer Science, 2019, , 18-31.	1.3	7
20	Dynamic Data Repartitioning for Load-Balanced Parallel Particle Tracing. , 2018, , .		4
21	Shared-Memory Communication for Containerized Workflows. , 2021, , .		3
22	Tracking vortices in superconductors: Extracting singularities from a discretized complex scalar field evolving in time. Physical Review E, 2016, 93, 023305.	2.1	2
23	CoSS. , 2017, , .		2
24	Dynamic Heterogeneous Task Specification and Execution for In Situ Workflows. , 2021, , .		2
25	In Situ Workflows at Exascale. , 2017, , .		1
26	Towards Multiresolution Phase Retrieval using Electron Ptychography. Microscopy and Microanalysis, 2015, 21, 2151-2152.	0.4	0
27	Exact Analytical Parallel Vectors. , 2021, , .		0