W R Elwasif

List of Publications by Year
in descending order

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52 papers	626 citations	1040056 9 h-index	677142 22 g-index
58 all docs	58 docs citations	58 times ranked	802 citing authors

#	Article	IF	Citations
1	Composable Programming of Hybrid Workflows for Quantum Simulation. , 2021, , .		3
2	Integrated model predictions on the impact of substrate damage on gas dynamics during ITER burning-plasma operations. Nuclear Fusion, 2021, 61, 116051.	3.5	5
3	Virtual Framework for Development and Testing of Federation Software Stack. , 2021, , .		6
4	Multi-physics modeling of the long-term evolution of helium plasma exposed surfaces. Physica Scripta, 2020, T171, 014041.	2.5	13
5	Software Framework for Federated Science Instruments. Communications in Computer and Information Science, 2020, , 189-203.	0.5	8
6	Containers for Massive Ensemble of I/O Bound Hierarchical Coupled Simulations. , 2020, , .		2
7	Exploring the Use of Novel Programming Models in Land Surface Models. , 2019, , .		1
8	Nested Workflows for Loosely Coupled HPC Simulations. , 2019, , .		4
9	Scaling the Summit: Deploying the Worldâ€™s Fastest Supercomputer. Lecture Notes in Computer Science, 2019, , 330-351.	1.3	10
10	Integrated modeling of high Î²_N steady state scenario on DIII-D. Physics of Plasmas, 2018, 25, 012506.	1.9	25
11	Steady-State Calibration of a Diesel Engine in Computational Fluid Dynamics Using a Graphical Processing Unit-Based Chemistry Solver. Journal of Engineering for Gas Turbines and Power, 2018, 140, .	1.1	3
12	Programmer-guided reliability for extreme-scale applications. International Journal of High Performance Computing Applications, 2018, 32, 598-612.	3.7	0
13	MiniApp for Density Matrix Renormalization Group Hamiltonian Application Kernel. , 2018, , .		2
14	Porting DMRG++ Scientific Application to OpenPOWER. Lecture Notes in Computer Science, 2018, , 418-431.	1.3	1
15	Steady-State Calibration of a Diesel Engine in CFD Using a GPU-Based Chemistry Solver. , 2017, , .		2
16	Experiences Evaluating Functionality and Performance of IBM POWER8+ Systems. Lecture Notes in Computer Science, 2017, , 254-274.	1.3	3
17	Integrated fusion simulation with self-consistent core-pedestal coupling. Physics of Plasmas, 2016, 23, .	1.9	56
18	Using C++ AMP to Accelerate HPC Applications on Multiple Platforms. Lecture Notes in Computer Science, 2016, , 563-576.	1.3	1

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19	Multiscale modeling and characterization for performance and safety of lithium-ion batteries. Journal of Applied Physics, 2015, 118, .	2.5	41
20	Programmer-Guided Reliability for Extreme-Scale Applications. , 2015, , .		0
21	CUDA Grid-Level Task Progression Algorithms. , 2015, , .		0
22	Safer Batteries through Coupled Multiscale Modeling. Procedia Computer Science, 2015, 51, 1168-1177.	2.0	8
23	A new open computational framework for highly-resolved coupled three-dimensional multiphysics simulations of Li-ion cells. Journal of Power Sources, 2014, 246, 876-886.	7.8	65
24	Time parallelization of advanced operation scenario simulations of ITER plasma. Journal of Physics: Conference Series, 2013, 410, 012032.	0.4	3
25	Parameter Sweep and Optimization of Loosely Coupled Simulations Using the DAKOTA Toolkit. , 2012, , .		5
26	Event-based parareal: A data-flow based implementation of parareal. Journal of Computational Physics, 2012, 231, 5945-5954.	3.8	31
27	Mechanisms for the convergence of time-parallelized, parareal turbulent plasma simulations. Journal of Computational Physics, 2012, 231, 7851-7867.	3.8	32
28	Multi-level concurrency in a framework for integrated loosely coupled plasma simulations. , 2011, , .		7
29	Strategies for Fault Tolerance in Multicomponent Applications. Procedia Computer Science, 2011, 4, 2287-2296.	2.0	10
30	A dependency-driven formulation of parareal. , 2011, , .		11
31	Many-task applications in the Integrated Plasma Simulator. , 2010, , .		6
32	The Design and Implementation of the SWIM Integrated Plasma Simulator. , 2010, , .		24
33	Designing a component-based architecture for the modeling and simulation of nuclear fuels and reactors. , 2009, , .		1
34	Extending the concept of component interfaces. , 2009, , .		0
35	Advances in simulation of wave interactions with extended MHD phenomena. Journal of Physics: Conference Series, 2009, 180, 012054.	0.4	2
36	Programmability of the HPCS Languages: A case study with a quantum chemistry kernel. Parallel and Distributed Processing Symposium (IPDPS), Proceedings of the International Conference on, 2008, , .	1.0	7

#	Article	IF	Citations
37	Exploring HPCS languages in scientific computing. Journal of Physics: Conference Series, 2008, 125, 012034.	0.4	1
38	Simulation of wave interactions with MHD. Journal of Physics: Conference Series, 2008, 125, 012039.	0.4	2
39	Managing Scientific Software Complexity with Bocca and CCA. Scientific Programming, 2008, 16, 315-327.	0.7	3
40	Bocca. , 2007, , .		6
41	Component framework for coupled integrated fusion plasma simulation. , 2007, , .		10
42	Research initiatives for plug-and-play scientific computing. Journal of Physics: Conference Series, 2007, 78, 012046.	0.4	0
43	Integrated physics advances in simulation of wave interactions with extended MHD phenomena. Journal of Physics: Conference Series, 2007, 78, 012003.	0.4	3
44	A Component Architecture for High-Performance Scientific Computing. International Journal of High Performance Computing Applications, 2006, 20, 163-202.	3.7	154
45	Coupled Fusion Simulation Using the Common Component Architecture. Lecture Notes in Computer Science, 2005, , 372-379.	1.3	3
46	Computational Quality of Service for Scientific Components. Lecture Notes in Computer Science, 2004, , 264-271.	1.3	15
47	Communication Infrastructure in High-Performance Component-Based Scientific Computing. Lecture Notes in Computer Science, 2002, , 260-270.	1.3	1
48	An Architecture for a Multi-threaded Harness Kernel. Lecture Notes in Computer Science, 2001, , 126-134.	1.3	3
49	<title>Function approximation using a sinc neural network</title>. , 1996, , .		1
50	<title>Boltzmann machine generation of initial asset distributions</title>. , 1995, , .		0
51	Predicting performance from test scores using backpropagation and counterpropagation. , 0, , .		20
52	QuaSiMo: A composable library to program hybrid workflows for quantum simulation. IET Quantum Communication, 0, , .	3.8	0