

David Bernholdt

List of Publications by Year in descending order

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Version: 2024-02-01

26
papers

1,968
citations

759233

12
h-index

713466

21
g-index

35
all docs

35
docs citations

35
times ranked

2244
citing authors

| # | ARTICLE | IF | CITATIONS |
|----|--|-----|-----------|
| 1 | 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 |
| 2 | A survey of MPI usage in the US exascale computing project. Concurrency Computation Practice and Experience, 2020, 32, e4851. | 2.2 | 49 |
| 3 | Application health monitoring for extreme-scale resiliency using cooperative fault management. Concurrency Computation Practice and Experience, 2020, 32, e5449. | 2.2 | 2 |
| 4 | NWChem: Past, present, and future. Journal of Chemical Physics, 2020, 152, 184102. | 3.0 | 425 |
| 5 | Teaching Software Sustainability for High Performance Computing at ATPESC. , 2020, , . | | 3 |
| 6 | Analysis of OpenMP 4.5 Offloading in Implementations: Correctness and Overhead. Parallel Computing, 2019, 89, 102546. | 2.1 | 15 |
| 7 | Programmer-guided reliability for extreme-scale applications. International Journal of High Performance Computing Applications, 2018, 32, 598-612. | 3.7 | 0 |
| 8 | Continuum-scale modeling of helium bubble bursting under plasma-exposed tungsten surfaces. Nuclear Fusion, 2018, 58, 126034. | 3.5 | 38 |
| 9 | Benchmarks and Tests of a Multidimensional Cluster Dynamics Model of Helium Implantation in Tungsten. Fusion Science and Technology, 2017, 71, 84-92. | 1.1 | 20 |
| 10 | Programmer-Guided Reliability for Extreme-Scale Applications. , 2015, , . | | 0 |
| 11 | Parameter Sweep and Optimization of Loosely Coupled Simulations Using the DAKOTA Toolkit. , 2012, , . | | 5 |
| 12 | Strategies for Fault Tolerance in Multicomponent Applications. Procedia Computer Science, 2011, 4, 2287-2296. | 2.0 | 10 |
| 13 | Realization of User Level Fault Tolerant Policy Management through a Holistic Approach for Fault Correlation. , 2011, , . | | 6 |
| 14 | Many-task applications in the Integrated Plasma Simulator. , 2010, , . | | 6 |
| 15 | The Design and Implementation of the SWIM Integrated Plasma Simulator. , 2010, , . | | 24 |
| 16 | Performance Optimization of Tensor Contraction Expressions for Many-Body Methods in Quantum Chemistry. Journal of Physical Chemistry A, 2009, 113, 12715-12723. | 2.5 | 24 |
| 17 | A framework for characterizing overlap of communication and computation in parallel applications. Cluster Computing, 2008, 11, 75-90. | 5.0 | 9 |
| 18 | Research initiatives for plug-and-play scientific computing. Journal of Physics: Conference Series, 2007, 78, 012046. | 0.4 | 0 |

| # | ARTICLE | IF | CITATIONS |
|----|--|-----|-----------|
| 19 | A Component Architecture for High-Performance Scientific Computing. International Journal of High Performance Computing Applications, 2006, 20, 163-202. | 3.7 | 154 |
| 20 | Automatic code generation for many-body electronic structure methods: the tensor contraction engine. Molecular Physics, 2006, 104, 211-228. | 1.7 | 104 |
| 21 | Data redistribution and remote method invocation for coupled components. Journal of Parallel and Distributed Computing, 2006, 66, 931-946. | 4.1 | 15 |
| 22 | Data Grid discovery and Semantic Web technologies for the earth sciences. International Journal on Digital Libraries, 2005, 5, 72-83. | 1.5 | 5 |
| 23 | Space-time trade-off optimization for a class of electronic structure calculations. , 2002, , . | | 37 |
| 24 | High performance computational chemistry: An overview of NWChem a distributed parallel application. Computer Physics Communications, 2000, 128, 260-283. | 7.5 | 698 |
| 25 | Large-scale correlated electronic structure calculations: the RI-MP2 method on parallel computers. Chemical Physics Letters, 1996, 250, 477-484. | 2.6 | 214 |
| 26 | Parallel computational chemistry made easier: The development of NWChem. International Journal of Quantum Chemistry, 1995, 56, 475-483. | 2.0 | 69 |