

List of Publications by Year in descending order

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69
papers

1,053
citations

516561

16
h-index

434063

31
g-index

72
all docs

72
docs citations

72
times ranked

1002
citing authors

#	ARTICLE	IF	CITATIONS
1	HPC Geophysical Electromagnetics: A Synthetic VTI Model with Complex Bathymetry. <i>Energies</i> , 2022, 15, 1272.	1.6	5
2	Smoothed Particle Hydrodynamics Simulations of Water Flow in a 90° Pipe Bend. <i>Water (Switzerland)</i> , 2021, 13, 1081.	1.2	4
3	Parallel 3-D marine controlled-source electromagnetic modelling using high-order tetrahedral NÄ©dÄ©lec elements. <i>Geophysical Journal International</i> , 2019, 219, 39-65.	1.0	29
4	PETGEM: A parallel code for 3D CSEM forward modeling using edge finite elements. <i>Computers and Geosciences</i> , 2018, 119, 123-136.	2.0	43
5	Radiation-Induced Error Criticality in Modern HPC Parallel Accelerators. , 2017, , .		26
6	Supercritical-Order Mimetic Operators on Higher-Dimensional Staggered Grids. <i>Lecture Notes in Computational Science and Engineering</i> , 2017, , 669-679.	0.1	0
7	Acceleration strategies for elastic full waveform inversion workflows in 2D and 3D. <i>Computational Geosciences</i> , 2017, 21, 31-45.	1.2	5
8	Three-Dimensional CSEM Modelling on Unstructured Tetrahedral Meshes Using Edge Finite Elements. <i>Communications in Computer and Information Science</i> , 2017, , 247-256.	0.4	0
9	Enhancing Energy Production with Exascale HPC Methods. <i>Communications in Computer and Information Science</i> , 2017, , 233-246.	0.4	0
10	Toward an automatic full-wave inversion: Synthetic study cases. <i>The Leading Edge</i> , 2016, 35, 1047-1052.	0.4	2
11	Improving edge finite element assembly for geophysical electromagnetic modelling on shared-memory architectures. , 2016, , .		0
12	Fostering Collaboration in Energy Research and Technological Developments Applying New Exascale HPC Techniques. , 2016, , .		1
13	Elastic Full Waveform Inversion (FWI) of Reflection Data with a Phase Misfit Function. <i>Communications in Computer and Information Science</i> , 2016, , 277-284.	0.4	0
14	Optimization of atmospheric transport models on HPC platforms. <i>Computers and Geosciences</i> , 2016, 97, 30-39.	2.0	4
15	Approaching parallel computing to simulating population dynamics in demography. <i>Parallel Computing</i> , 2016, 59, 151-170.	1.3	7
16	Alya: Multiphysics engineering simulation toward exascale. <i>Journal of Computational Science</i> , 2016, 14, 15-27.	1.5	144
17	A Parallel Tool for Numerical Approximation of 3D Electromagnetic Surveys in Geophysics. <i>Computacion Y Sistemas</i> , 2016, 20, .	0.2	4
18	First experience with particle-in-cell plasma physics code on ARM-based HPC systems. <i>Journal of Physics: Conference Series</i> , 2015, 640, 012064.	0.3	2

#	ARTICLE	IF	CITATIONS
19	Parallel and numerical issues of the edge finite element method for 3D controlled-source electromagnetic surveys. , 2015, , .		1
20	Edge-based electric field formulation in 3D CSEM simulations: A parallel approach. , 2015, , .		3
21	A review of block Krylov subspace methods for multisource electromagnetic modelling. Geophysical Journal International, 2015, 202, 1241-1252.	1.0	31
22	Unveiling WARIS Code, a Parallel and Multi-purpose FDM Framework. Lecture Notes in Computational Science and Engineering, 2015, , 591-599.	0.1	0
23	Mimetic seismic wave modeling including topography on deformed staggered grids. Geophysics, 2014, 79, T125-T141.	1.4	85
24	Finite-difference staggered grids in GPUs for anisotropic elastic wave propagation simulation. Computers and Geosciences, 2014, 70, 181-189.	2.0	26
25	Algebraic multigrid preconditioning within parallel finite-element solvers for 3-D electromagnetic modelling problems in geophysics. Geophysical Journal International, 2014, 197, 1442-1458.	1.0	29
26	Large-Scale Social Simulation, Dealing with Complexity Challenges in High Performance Environments. Advances in Human and Social Aspects of Technology Book Series, 2014, , 106-123.	0.3	2
27	A parallel finite-element method for three-dimensional controlled-source electromagnetic forward modelling. Geophysical Journal International, 2013, 193, 678-693.	1.0	126
28	3D seismic modelling with topography using mimetic finite differences. , 2013, , .		0
29	Efficient parallel solutions to 3D electromagnetic problems using potentials. , 2013, , .		0
30	The development of new infantry tactics during the early eighteenth century: a computer simulation approach to modern military history. Journal of Simulation, 2013, 7, 170-182.	1.0	10
31	Using power-model based preconditioners for 3D acoustic full waveform inversion. , 2013, , .		1
32	Generalized Elastic Staggered Grids on Multi-GPU Platforms. , 2012, , .		1
33	Simulating archaeologists? Using agent-based modelling to improve battlefield excavations. Journal of Archaeological Science, 2012, 39, 347-356.	1.2	31
34	Real-space density functional theory and time dependent density functional theory using finite/infinite element methods. Computer Physics Communications, 2012, 183, 2581-2588.	3.0	2
35	Particle-in-Cell Algorithms for Plasma Simulations on Heterogeneous Architectures. , 2011, , .		1
36	Assessing Accelerator-Based HPC Reverse Time Migration. IEEE Transactions on Parallel and Distributed Systems, 2011, 22, 147-162.	4.0	49

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37	Comparison of irregular cartesian finite difference methods for acoustic RTM. , 2011, , .		0
38	An efficient implementation of a QMâ€“MM method in SIESTA. Theoretical Chemistry Accounts, 2011, 128, 825-833.	0.5	29
39	Improvements of the particle-in-cell code EUTERPE for petascaling machines. Computer Physics Communications, 2011, 182, 2047-2051.	3.0	5
40	Some useful strategies for unstructured edgeâ€“based solvers on shared memory machines. International Journal for Numerical Methods in Engineering, 2011, 85, 537-561.	1.5	14
41	A parallel finiteâ€“element method for 3â€“D marine controlledâ€“source electromagnetic forward modeling. , 2011, , .		0
42	Stability of three-dimensional relativistic jets: implications for jet collimation. Astronomy and Astrophysics, 2010, 519, A41.	2.1	80
43	Linear and Nonlinear Simulations Using the EUTERPE Gyrokinetic Code. IEEE Transactions on Plasma Science, 2010, 38, 2119-2128.	0.6	4
44	Modulated phase matching and high-order harmonic enhancement mediated by the carrier-envelope phase. Physical Review A, 2010, 81, .	1.0	16
45	Exploring a Novel Gathering Method for Finite Element Codes on the Cell/B.E. Architecture. , 2010, , .		0
46	Introducing the Semi-stencil Algorithm. Lecture Notes in Computer Science, 2010, , 496-506.	1.0	8
47	A European Infrastructure for Fusion Simulations. , 2010, , .		4
48	Hybrid MPI-OpenMP performance in massively parallel computational fluid dynamics. Lecture Notes in Computational Science and Engineering, 2010, , 293-297.	0.1	0
49	3D Seismic Imaging through Reverse-Time Migration on Homogeneous and Heterogeneous Multi-Core Processors. Scientific Programming, 2009, 17, 185-198.	0.5	25
50	High-Performance Reverse Time Migration on GPU. , 2009, , .		10
51	A massively parallel fractional step solver for incompressible flows. Journal of Computational Physics, 2009, 228, 6316-6332.	1.9	78
52	Evaluation of 3D RTM on HPC platforms. , 2008, , .		4
53	3D reverseâ€“time migration with hybrid finite differenceâ€“pseudospectral method. , 2008, , .		5
54	Modeling of wideâ€“azimuth towedâ€“streamer surveys with highâ€“performance computing. , 2007, , .		3

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55	Coherent Stark nonlinear spectroscopy with chirped pulses. Physical Review A, 2007, 75, .	1.0	2
56	Performance of computationally intensive parameter sweep applications on Internet-based Grids of computers: the mapping of molecular potential energy hypersurfaces. Concurrency Computation Practice and Experience, 2007, 19, 463-481.	1.4	8
57	Data Distribution Strategies for Domain Decomposition Applications in Grid Environments. Lecture Notes in Computer Science, 2005, , 214-224.	1.0	1
58	Performance Analysis of Domain Decomposition Applications Using Unbalanced Strategies in Grid Environments. Lecture Notes in Computer Science, 2005, , 1031-1042.	1.0	1
59	A Domain Decomposition Strategy for GRID Environments. Lecture Notes in Computer Science, 2004, , 353-361.	1.0	2
60	Programming Grid Applications with GRID Superscalar. Journal of Grid Computing, 2003, 1, 151-170.	2.5	63
61	A Parallel Computing Model for the Acceleration of a Finite Element Software. Lecture Notes in Computer Science, 2002, , 449-456.	1.0	2
62	High Performance Computing on Boundary Element Simulations. Lecture Notes in Computer Science, 2000, , 572-575.	1.0	3
63	Computational Issues in Optimizing Ophthalmic Lens. Lecture Notes in Computer Science, 1999, , 173-182.	1.0	0
64	PLS: A parallel linear solvers library for Domain Decomposition methods. Lecture Notes in Computer Science, 1996, , 319-322.	1.0	1
65	Parallelization of the SPAI preconditioner in a master-slave configuration. Lecture Notes in Computer Science, 1996, , 150-157.	1.0	0
66	Parallel computing aided design of earthing systems for electrical substations in non-homogeneous soil models. , 0, , .		2
67	A parallel algebraic preconditioner for the schur complement system. , 0, , .		0
68	A parallel iterative solver based on the Schur complement system. , 0, , .		2
69	Overview on Agent-Based Social Modelling and the Use of Formal Languages. , 0, , 333-377.		2