Ana CortÃ©s

List of Publications by Year
in descending order

81 papers	925 citations	516561 16 h-index	552653 26 g-index
86 all docs	86 docs citations	86 times ranked	743 citing authors

#	Article	IF	Citations
1	Evaluating WRF-BEP/BEM Performance: On the Way to Analyze Urban Air Quality at High Resolution Using WRF-Chem+BEP/BEM. Lecture Notes in Computer Science, 2021, , 516-527.	1.0	1
2	Cloud-Based Urgent Computing for Forest Fire Spread Prediction under Data Uncertainties. , 2021, , .		1
3	Wind Field Parallelization Based on Python Multiprocessing to Reduce Forest Fire Propagation Prediction Uncertainty. Lecture Notes in Computer Science, 2020, , 550-560.	1.0	0
4	Early Adaptive Evaluation Scheme for Data-Driven Calibration in Forest Fire Spread Prediction. Lecture Notes in Computer Science, 2020, , 17-30.	1.0	2
5	Finding, analysing and solving MPI communication bottlenecks in Earth System models. Journal of Computational Science, 2019, 36, 100864.	1.5	14
6	How to use mixed precision in ocean models: exploring a potential reduction of numerical precision in NEMO 4.0 and ROMS 3.6. Geoscientific Model Development, 2019, 12, 3135-3148.	1.3	24
7	A global wildfire dataset for the analysis of fire regimes and fire behaviour. Scientific Data, 2019, 6, 296.	2.4	119
8	Scalability of a multi-physics system for forest fire spread prediction in multi-core platforms. Journal of Supercomputing, 2019, 75, 1163-1174.	2.4	5
9	Wind field parallelization based on Schwarz alternating domain decomposition method. Future Generation Computer Systems, 2018, 82, 565-574.	4.9	3
10	Relevance of Error Function in Input Parameter Calibration in a Coupled Wind Field Model-Forest Fire Spread Simulator. , 2018, , .		0
11	Reducing Data Uncertainty in Forest Fire Spread Prediction: A Matter of Error Function Assessment. Lecture Notes in Computer Science, 2018, , 207-220.	1.0	0
12	Time aware genetic algorithm for forest fire propagation prediction: exploiting multiâ€core platforms. Concurrency Computation Practice and Experience, 2017, 29, e3837.	1.4	23
13	Applying vectorization of diagonal sparse matrix to accelerate wind field calculation. Journal of Supercomputing, 2017, 73, 240-258.	2.4	5
14	Introducing computational thinking, parallel programming and performance engineering in interdisciplinary studies. Journal of Parallel and Distributed Computing, 2017, 105, 116-126.	2.7	10
15	Optimizing domain decomposition in an ocean model: the case of NEMO. Procedia Computer Science, 2017, 108, 776-785.	1.2	6
16	A comparative study of evolutionary statistical methods for uncertainty reduction in forest fire propagation prediction. Procedia Computer Science, 2017, 108, 2018-2027.	1.2	7
17	Non-supervised method for early forest fire detection and rapid mapping. , 2017, , .		3
18	Automatic fire perimeter determination using MODIS hotspots information. , 2016, , .		4

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19	Applying domain decomposition to wind field calculation. Parallel Computing, 2016, 57, 185-196.	1.3	6
20	Error Function Impact in Dynamic Data-driven Framework Applied to Forest Fire Spread Prediction. Procedia Computer Science, 2016, 80, 418-427.	1.2	4
21	Accelerating preconditioned conjugate gradient solver in wind field calculation. , 2016, , .		2
22	Large Forest Fire Spread Prediction: Data and Computational Science. Procedia Computer Science, 2016, 80, 909-918.	1.2	6
23	Three evolutionary statistical parallel methods for uncertainty reduction in wildland fire prediction. , 2016, , .		3
24	Hybrid application to accelerate wind field calculation. Journal of Computational Science, 2016, 17, 576-590.	1.5	5
25	Real-time genetic spatial optimization to improve forest fire spread forecasting in high-performance computing environments. International Journal of Geographical Information Science, 2016, 30, 594-611.	2.2	9
26	Determining map partitioning to minimize wind field uncertainty in forest fire propagation prediction. Journal of Computational Science, 2016, 14, 28-37.	1.5	9
27	Adapting Map Resolution to Accomplish Execution Time Constraints in Wind Field Calculation. Procedia Computer Science, 2015, 51, 2749-2753.	1.2	2
28	Forest Fire Propagation Prediction Based on Overlapping DDDAS Forecasts. Procedia Computer Science, 2015, 51, 1623-1632.	1.2	16
29	Relieving Uncertainty in Forest Fire Spread Prediction by Exploiting Multicore Architectures. Procedia Computer Science, 2015, 51, 1752-1761.	1.2	7
30	Applying domain decomposition Schwarz method to accelerate wind field calculation. , 2015, , .		3
31	Enhancing computational efficiency on forest fire forecasting by time-aware Genetic Algorithms. Journal of Supercomputing, 2015, 71, 1869-1881.	2.4	7
32	Coupled Dynamic Data-Driven Framework for Forest Fire Spread Prediction. Lecture Notes in Computer Science, 2015, , 54-67.	1.0	5
33	Enhancing multi-model forest fire spread prediction by exploiting multi-core parallelism. Journal of Supercomputing, 2014, 70, 721-732.	2.4	15
34	Case Study in Large Scale Climate Simulations: Optimizing the Speedup/Efficiency Balance in Supercomputing Environments. , 2014, , .		1
35	Response time assessment in forest fire spread simulation: An integrated methodology for efficient exploitation of available prediction time. Environmental Modelling and Software, 2014, 54, 153-164.	1.9	24
36	Determining map partitioning to accelerate wind field calculation. , 2014, , .		5

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37	Wind Field Uncertainty in Forest Fire Propagation Prediction. Procedia Computer Science, 2014, 29, 1535-1545.	1.2	20
38	Impact of I/O and Data Management in Ensemble Large Scale Climate Forecasting Using EC-Earth3. Procedia Computer Science, 2014, 29, 2370-2379.	1.2	2
39	Towards a Dynamic Data Driven Wildfire Behavior Prediction System at European Level. Procedia Computer Science, 2014, 29, 1216-1226.	1.2	12
40	Core Allocation Policies on Multicore Platforms to Accelerate Forest Fire Spread Predictions. Lecture Notes in Computer Science, 2014, , 151-160.	1.0	2
41	Parameter calibration framework for environmental emergency models. Simulation Modelling Practice and Theory, 2013, 31, 10-21.	2.2	11
42	Coupling Diagnostic and Prognostic Models to a Dynamic Data Driven Forest Fire Spread Prediction System. Procedia Computer Science, 2013, 18, 1851-1860.	1.2	12
43	Relieving the Effects of Uncertainty in Forest Fire Spread Prediction by Hybrid MPI-OpenMP Parallel Strategies. Procedia Computer Science, 2013, 18, 2278-2287.	1.2	23
44	A Data-driven Model for Large Wildfire Behaviour Prediction in Europe. Procedia Computer Science, 2013, 18, 1861-1870.	1.2	28
45	Spatial pattern alterations from JPEG2000 lossy compression of remote sensing images: massive variogram analysis in high performance computing. Journal of Applied Remote Sensing, 2013, 7, 073595.	0.6	5
46	Applying Probability Theory for the Quality Assessment of a Wildfire Spread Prediction Framework Based on Genetic Algorithms. Scientific World Journal, The, 2013, 2013, 1-12.	0.8	3
47	Genetic Algorithm Characterization for the Quality Assessment of Forest Fire Spread Prediction. Procedia Computer Science, 2012, 9, 312-320.	1.2	12
48	On the Way of Applying Urgent Computing Solutions to Forest Fire Propagation Prediction. Procedia Computer Science, 2012, 9, 1657-1666.	1.2	7
49	Towards Improving Numerical Weather Predictions by Evolutionary Computing Techniques. Procedia Computer Science, 2012, 9, 1056-1063.	1.2	6
50	Coupling Wind Dynamics into a DDDAS Forest Fire Propagation Prediction System. Procedia Computer Science, 2012, 9, 1110-1118.	1.2	20
51	Parallel Multi-level Genetic Ensemble for Numerical Weather Prediction Enhancement. Procedia Computer Science, 2012, 9, 276-285.	1.2	11
52	Dynamic Data-Driven Genetic Algorithm for forest fire spread prediction. Journal of Computational Science, 2012, 3, 398-404.	1.5	47
53	Geostatistical analysis of Landsat-TM lossy compression images in a high-performance computing environment. , 2011, , .		1
54	Parallel ordinary kriging interpolation incorporating automatic variogram fitting. Computers and Geosciences, 2011, 37, 464-473.	2.0	60

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55	Prediction Time Assessment in a DDDAS for Natural Hazard Management: Forest Fire Study Casel. Procedia Computer Science, 2011, 4, 1761-1770.	1.2	2
56	Evolutionary Optimisation Techniques to Estimate Input Parameters in Environmental Emergency Modelling. Studies in Computational Intelligence, 2011, , 125-143.	0.7	2
57	Towards policies for data insertion in dynamic data driven application systems: a case study sudden changes in wildland fire. Procedia Computer Science, 2010, 1, 1267-1276.	1.2	3
58	Knowledge-guided Genetic Algorithm for input parameter optimisation in environmental modelling. Procedia Computer Science, 2010, 1, 1367-1375.	1.2	19
59	Wildland fire growth prediction method based on Multiple Overlapping Solution. Journal of Computational Science, 2010, 1, 229-237.	1.5	35
60	Evolutionary Intelligent System for input parameter optimisation in environmental modelling: A case study in forest fire forecasting. , 2010, , .		1
61	Data Injection at Execution Time in Grid Environments Using Dynamic Data Driven Application System for Wildland Fire Spread Prediction. , 2010, , .		5
62	Half-Duplex Dynamic Data Driven Application System for Forest Fire Spread Prediction. Lecture Notes in Computer Science, 2010, , 1-7.	1.0	0
63	Support for Urgent Computing Based on Resource Virtualization. Lecture Notes in Computer Science, 2009, , 227-236.	1.0	5
64	Injecting Dynamic Real-Time Data into a DDDAS for Forest Fire Behavior Prediction. Lecture Notes in Computer Science, 2009, , 489-499.	1.0	21
65	An Adaptive System for Forest Fire Behavior Prediction. , 2008, , .		9
66	Applying a Dynamic Data Driven Genetic Algorithm to Improve Forest Fire Spread Prediction. Lecture Notes in Computer Science, 2008, , 36-45.	1.0	29
67	The Convergence of Realistic Distributed Load-Balancing Algorithms. Theory of Computing Systems, 2007, 41, 609-618.	0.7	12
68	Improving forest-fire prediction by applying a statistical approach. Forest Ecology and Management, 2006, 234, S210.	1.4	7
69	Between classical and ideal: enhancing wildland fire prediction using cluster computing. Cluster Computing, 2006, 9, 329-343.	3.5	4
70	TDP_SHELL: An Interoperability Framework for Resource Management Systems and Run-Time Monitoring Tools. Lecture Notes in Computer Science, 2006, , 15-24.	1.0	1
71	S 2 F 2 M â€“ Statistical System for Forest Fire Management. Lecture Notes in Computer Science, 2005, , 427-434.	1.0	5
72	Enhancing wildland fire prediction on cluster systems applying evolutionary optimization techniques. Future Generation Computer Systems, 2005, 21, 61-67.	4.9	36

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73	Accelerating Wildland Fire Prediction on Cluster Systems. Lecture Notes in Computer Science, 2004, , 220-227.	1.0	0
74	Accelerating Optimization of Input Parameters in Wildland Fire Simulation. Lecture Notes in Computer Science, 2004, , 1067-1074.	1.0	3
75	Clustering and reassignment-based mapping strategy for message-passing architectures. Journal of Systems Architecture, 2003, 48, 267-283.	2.5	13
76	The Tool DÃ¦mon Protocol (TDP). , 2003, , .		6
77	An asynchronous and iterative load balancing algorithm for discrete load model. Journal of Parallel and Distributed Computing, 2002, 62, 1729-1746.	2.7	29
78	Optimization of Fire Propagation Model Inputs: A Grand Challenge Application on Metacomputers. Lecture Notes in Computer Science, 2002, , 447-451.	1.0	3
79	Evolutionary Optimization Techniques on Computational Grids. Lecture Notes in Computer Science, 2002, , 513-522.	1.0	9
80	Scheduling of parallel programs including dynamic loops. Future Generation Computer Systems, 1994, 10, 301-304.	4.9	0
81	Clustering and reassignment-based mapping strategy for message-passing architectures. , 0, , .		8