Patricia Gonzalez

List of Publications by Year
in descending order

59 papers	763 citations	759233 12 h-index	752698 20 g-index
60 all docs	60 docs citations	60 times ranked	927 citing authors

#	Article	IF	Citations
1	An efficient ant colony optimization framework for HPC environments. Applied Soft Computing Journal, 2022, 114, 108058.	7.2	8
2	Spark implementation of the enhanced Scatter Search metaheuristic: Methodology and assessment. Swarm and Evolutionary Computation, 2020, 59, 100748.	8.1	9
3	Fault tolerance of MPI applications in exascale systems: The ULFM solution. Future Generation Computer Systems, 2020, 106, 467-481.	7.5	33
4	Hybrid parallel multimethod hyperheuristic for mixed-integer dynamic optimization problems in computational systems biology. Journal of Supercomputing, 2019, 75, 3471-3498.	3.6	3
5	Local rollback for resilient MPI applications with application-level checkpointing and message logging. Future Generation Computer Systems, 2019, 91, 450-464.	7.5	19
6	Multimethod optimization in the cloud: A caseâ€study in systems biology modelling. Concurrency Computation Practice and Experience, 2018, 30, e4488.	2.2	3
7	Towards cloud-based parallel metaheuristics. International Journal of High Performance Computing Applications, 2018, 32, 693-705.	3.7	10
8	Insights into Application-level Solutions towards Resilient MPI Applications. , 2018, , .		0
9	Multimethod Optimization for Reverse Engineering of Complex Biological Networks. , 2018, , .		1
10	Implementing cloud-based parallel metaheuristics: an overview. Journal of Computer Science and Technology(Argentina), 2018, 18, e26.	0.8	1
11	Resilient MPI applications using an application-level checkpointing framework and ULFM. Journal of Supercomputing, 2017, 73, 100-113.	3.6	22
12	A portable and adaptable fault tolerance solution for heterogeneous applications. Journal of Parallel and Distributed Computing, 2017, 104, 146-158.	4.1	3
13	Parameter estimation in large-scale systems biology models: a parallel and self-adaptive cooperative strategy. BMC Bioinformatics, 2017, 18, 52.	2.6	300
14	A cloud-based enhanced differential evolution algorithm for parameter estimation problems in computational systems biology. Cluster Computing, 2017, 20, 1937-1950.	5.0	20
15	Using the Cloud for Parameter Estimation Problems: Comparing Spark vs MPI with a Case-Study. , 2017, , .		11
16	Assessing resilient versus stop-and-restart fault-tolerant solutions in MPI applications. Journal of Supercomputing, 2017, 73, 316-329.	3.6	8
17	Evaluation of Parallel Differential Evolution Implementations on MapReduce and Spark. Lecture Notes in Computer Science, 2017, , 397-408.	1.3	3
18	An Application-Level Solution for the Dynamic Reconfiguration of MPI Applications. Lecture Notes in Computer Science, 2017, , 191-205.	1.3	4

#	Article	IF	Citations
19	A parallel metaheuristic for large mixed-integer dynamic optimization problems, with applications in computational biology. PLoS ONE, 2017, 12, e0182186.	2.5	10
20	A fast algorithm for constructing nearly optimal prefix codes. Software - Practice and Experience, 2016, 46, 1299-1316.	3.6	0
21	Implementing Parallel Differential Evolution on Spark. Lecture Notes in Computer Science, 2016, , 75-90.	1.3	23
22	Portable Application-level Checkpointing for Hybrid MPI-OpenMP Applications. Procedia Computer Science, 2016, 80, 19-29.	2.0	7
23	Reducing the overhead of an MPI application-level migration approach. Parallel Computing, 2016, 54, 72-82.	2.1	3
24	Parallel Metaheuristics in Computational Biology: An Asynchronous Cooperative Enhanced Scatter Search Method. Procedia Computer Science, 2015, 51, 630-639.	2.0	17
25	Enhanced parallel Differential Evolution algorithm for problems in computational systems biology. Applied Soft Computing Journal, 2015, 33, 86-99.	7.2	46
26	I/O Optimization in the Checkpointing of OpenMP Parallel Applications. , 2015, , .		2
27	Improving an MPI Application-Level Migration Approach through Checkpoint File Splitting. , 2014, , .		2
28	Failure Avoidance in MPI Applications Using an Application-Level Approach. Computer Journal, 2014, 57, 100-114.	2.4	7
29	In-memory application-level checkpoint-based migration for MPI programs. Journal of Supercomputing, 2014, 70, 660-670.	3.6	2
30	A Parallel Differential Evolution Algorithm for Parameter Estimation in Dynamic Models of Biological Systems. Advances in Intelligent Systems and Computing, 2014, , 173-181.	0.6	4
31	Improving Scalability of Application-Level Checkpoint-Recovery by Reducing Checkpoint Sizes. New Generation Computing, 2013, 31, 163-185.	3.3	18
32	Compiler-Assisted Checkpointing of Parallel Codes: The Cetus and LLVM Experience. International Journal of Parallel Programming, 2013, 41, 782-805.	1.5	1
33	Achieving Checkpointing Global Consistency Through a Hybrid Compile Time and Runtime Protocol. Procedia Computer Science, 2013, 18, 169-178.	2.0	5
34	Reducing Application-level Checkpoint File Sizes: Towards Scalable Fault Tolerance Solutions. , 2012, , .		6
35	An Application Level Approach for Proactive Process Migration in MPI Applications. , 2011, , .		2
36	Extending the Globus Information Service with the Common Information Model. , 2011, , .		1

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37	Analysis of Performance-impacting Factors on Checkpointing Frameworks: The CPPC Case Study. Computer Journal, 2011, 54, 1821-1837.	2.4	9
38	CPPC: a compilerâ€assisted tool for portable checkpointing of messageâ€passing applications. Concurrency Computation Practice and Experience, 2010, 22, 749-766.	2.2	41
39	Performance evaluation of an application-level checkpointing solution on grids. Future Generation Computer Systems, 2010, 26, 1012-1023.	7.5	6
40	Achieving Fault Tolerance on Grids with the CPPC Framework and the GridWay Metascheduler. , 2010, , .		2
41	Integrating the common information model with MDS4. , 2008, , .		9
42	Application-Level Fault-Tolerance Solutions for Grid Computing. , 2008, , .		3
43	CPPC-G: Fault-Tolerant Applications on the Grid. , 2008, , 852-859.		0
44	Fault-tolerant solutions for a MPI compute intensive application. , 2007, , .		3
45	Controller/Precompiler for Portable Checkpointing. IEICE Transactions on Information and Systems, 2006, E89-D, 408-417.	0.7	12
46	Dynamic Load-Balancing for the STEM-II Air Quality Model. Lecture Notes in Computer Science, 2006, , 701-710.	1.3	0
47	Performance Prediction for Parallel Iterative Solvers. Journal of Supercomputing, 2004, 28, 177-191.	3.6	3
48	Iterative solution of large linear systems with non-smooth submatrices using partial wavelet transforms and split-matrix matrixâ€“vector multiplication. International Journal for Numerical Methods in Engineering, 2004, 59, 457-473.	2.8	4
49	Parallel sparse approximate preconditioners applied to the solution of BEM systems. Engineering Analysis With Boundary Elements, 2004, 28, 1061-1068.	3.7	4
50	A Grid-Enabled Air Quality Simulation. Lecture Notes in Computer Science, 2004, , 155-162.	1.3	5
51	Air Pollution Modeling in the CrossGrid Project. Lecture Notes in Computer Science, 2004, , 132-139.	1.3	0
52	: visualizing the performance prediction of parallel iterative solvers. Future Generation Computer Systems, 2003, 19, 721-733.	7.5	7
53	Parallel iterative solvers involving fast wavelet transforms for the solution of BEM systems. Advances in Engineering Software, 2002, 33, 417-426.	3.8	13
54	Parallel Computation of Wavelet Transforms Using the Lifting Scheme. Journal of Supercomputing, 2001, 18, 141-152.	3.6	10

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55	On parallel solvers for sparse triangular systems. Journal of Systems Architecture, 2000, 46, 675-685.	4.3	2
56	Dual BEM for crack growth analysis on distributed-memory multiprocessors. Advances in Engineering Software, 2000, 31, 921-927.	3.8	7
57	PARALLEL INCOMPLETE LU FACTORIZATION AS A PRECONDITIONER FOR KRYLOV SUBSPACE METHODS. Parallel Processing Letters, 1999, 09, 467-474.	0.6	7
58	Parallel implementation of wavelet transforms on distributed-memory multicomputers. , 0, , .		1
59	Increasing the throughput of available resources using management tools based on Grid technologies. , 0, , .		0