Ester Martin Garzon

List of Publications by Year
in descending order

66 papers	**930** citations	623734 **14** h-index	526287 **27** g-index
68 all docs	**68** docs citations	**68** times ranked	**742** citing authors

#	Article	IF	Citations
1	Analysis and Optimizations of Global and Local Versions of the RX Algorithm for Anomaly Detection in Hyperspectral Data. IEEE Journal of Selected Topics in Applied Earth Observations and Remote Sensing, 2013, 6, 801-814.	4.9	206
2	A new approach for sparse matrix vector product on NVIDIA GPUs. Concurrency Computation Practice and Experience, 2011, 23, 815-826.	2.2	96
3	Improving the Performance of the Sparse Matrix Vector Product with GPUs. , 2010, , .		86
4	A matrix approach to tomographic reconstruction and its implementation on GPUs. Journal of Structural Biology, 2010, 170, 146-151.	2.8	37
5	Automatic tuning of the sparse matrix vector product on GPUs based on the ELLR-T approach. Parallel Computing, 2012, 38, 408-420.	2.1	35
6	Hybrid computing: CPU+GPU co-processing and its application to tomographic reconstruction. Ultramicroscopy, 2012, 115, 109-114.	1.9	31
7	FastSpMM: An Efficient Library for Sparse Matrix Matrix Product on GPUs. Computer Journal, 2014, 57, 968-979.	2.4	30
8	Automatic tuning of iterative computation onÂheterogeneous multiprocessors with ADITHE. Journal of Supercomputing, 2011, 58, 151-159.	3.6	28
9	Efficient Implementation of Hyperspectral Anomaly Detection Techniques on GPUs and Multicore Processors. IEEE Journal of Selected Topics in Applied Earth Observations and Remote Sensing, 2014, 7, 2256-2266.	4.9	26
10	Vectorization with SIMD extensions speeds up reconstruction in electron tomography. Journal of Structural Biology, 2010, 170, 570-575.	2.8	22
11	Non-dominated sorting procedure for Pareto dominance ranking on multicore CPU and/or GPU. Journal of Global Optimization, 2017, 69, 607-627.	1.8	22
12	Anomaly detection based on a parallel kernel RX algorithm for multicore platforms. Journal of Applied Remote Sensing, 2012, 6, 061503.	1.3	21
13	A review on reversible quantum adders. Journal of Network and Computer Applications, 2020, 170, 102810.	9.1	20
14	Fast anomaly detection in hyperspectral images with RX method on heterogeneous clusters. Journal of Supercomputing, 2011, 58, 411-419.	3.6	19
15	Optimal fault-tolerant quantum comparators for image binarization. Journal of Supercomputing, 2021, 77, 8433-8444.	3.6	18
16	Performance evaluation of kernel fusion BLAS routines on the GPU: iterative solvers as case study. Journal of Supercomputing, 2014, 70, 577-587.	3.6	15
17	TomoEED: fast edge-enhancing denoising of tomographic volumes. Bioinformatics, 2018, 34, 3776-3778.	4.1	15
18	High performance noise reduction for biomedical multidimensional data. , 2007, 17, 724-736.		14

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19	Adaptive load balancing of iterative computation onÂheterogeneous nondedicated systems. Journal of Supercomputing, 2011, 58, 385-393.	3.6	14
20	Matrix Implementation of Simultaneous Iterative Reconstruction Technique (SIRT) on GPUs. Computer Journal, 2011, 54, 1861-1868.	2.4	12
21	The BiConjugate gradient method on GPUs. Journal of Supercomputing, 2013, 64, 49-58.	3.6	12
22	An approach to optimise the energy efficiency of iterative computation on integrated GPUâ€"CPU systems. Journal of Supercomputing, 2017, 73, 114-125.	3.6	10
23	Improving the performance and energy of Non-Dominated Sorting for evolutionary multiobjective optimization on GPU/CPU platforms. Journal of Global Optimization, 2018, 71, 631-649.	1.8	10
24	On solving the unrelated parallel machine scheduling problem: active microrheology as a case study. Journal of Supercomputing, 2020, 76, 8494-8509.	3.6	9
25	An efficient approach for solving the HP protein folding problem based on UEGO. Journal of Mathematical Chemistry, 2015, 53, 794-806.	1.5	8
26	Using low-power platforms for Evolutionary Multi-Objective Optimization algorithms. Journal of Supercomputing, 2017, 73, 302-315.	3.6	8
27	An optimized quantum circuit for converting from signâ€"magnitude to twoâ€™s complement. Quantum Information Processing, 2019, 18, 1.	2.2	8
28	Finite size effects in active microrheology in colloids. Computer Physics Communications, 2019, 236, 8-14.	7.5	7
29	Improving the energy efficiency of SMACOF for multidimensional scaling on modern architectures. Journal of Supercomputing, 2019, 75, 1038-1050.	3.6	7
30	Floating point arithmetic teaching for computational science. Future Generation Computer Systems, 2003, 19, 1321-1334.	7.5	6
31	Educational issues on number representation and arithmetic in computers: an undergraduate laboratory. IEEE Transactions on Education, 2003, 46, 477-485.	2.4	6
32	Fast Sparse Matrix Matrix Product Based on ELLR-T and GPU Computing. , 2012, , .		6
33	Exploring the performanceâ€"powerâ€"energy balance of low-power multicore and manycore architectures for anomaly detection in remote sensing. Journal of Supercomputing, 2015, 71, 1893-1906.	3.6	6
34	Dynamic Load Scheduling on CPU-GPU for Iterative Tomographic Reconstruction. , 2012, , .		5
35	A GPU implementation of a hybrid evolutionary algorithm: GPuEGO. Journal of Supercomputing, 2014, 70, 684-695.	3.6	5
36	Parallel resolution of the 3D Helmholtz equation based on multiâ€graphics processing unit clusters. Concurrency Computation Practice and Experience, 2015, 27, 3205-3219.	2.2	5

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37	Accelerating the problem of microrheology in colloidal systems on a GPU. Journal of Supercomputing, 2017, 73, 370-383.	3.6	5
38	Dynamics and friction of a large colloidal particle in a bath of hard spheres: Langevin dynamics simulations and hydrodynamic description. Physical Review E, 2020, 101, 052607.	2.1	4
39	High performance computing for a 3-D optical diffraction tomographic application in fluid velocimetry. Optics Express, 2015, 23, 4021.	3.4	3
40	Parallel radiation dose computations with GENOCOP III on GPUs. Journal of Supercomputing, 2021, 77, 66-76.	3.6	3
41	A Parallel Implementation of the Eigenproblem for Large, Symmetric and Sparse Matrices. Lecture Notes in Computer Science, 1999, , 380-387.	1.3	3
42	GPU Computing to Speed-Up the Resolution of Microrheology Models. Lecture Notes in Computer Science, 2016, , 457-466.	1.3	3
43	Multiprocessing of anisotropic nonlinear diffusion for filtering 3D images. , 2006, , .		2
44	On a model of three-dimensional bursting and its parallel implementation. Computer Physics Communications, 2008, 178, 471-485.	7.5	2
45	High performance computing for Optical Diffraction Tomography. , 2012, , .		2
46	High performance computing: an essential tool for science and engineering breakthroughs. Journal of Supercomputing, 2014, 70, 511-513.	3.6	2
47	Powers of Large Matrices on GPU Platforms to Compute the Roman Domination Number of Cylindrical Graphs. IEEE Access, 2021, 9, 29346-29355.	4.2	2
48	Evaluation of Parallel Paradigms on Anisotropic Nonlinear Diffusion. Lecture Notes in Computer Science, 2006, , 1159-1168.	1.3	2
49	Studying theÂCost ofÂn-qubit Toffoli Gates. Lecture Notes in Computer Science, 2022, , 122-128.	1.3	2
50	HPC enables efficient 3D membrane segmentation in electron tomography. Journal of Supercomputing, 2022, 78, 19097-19113.	3.6	2
51	Multiprocessing of the time domain analysis of thin-wire antennas and scatterers. , 2004, , .		1
52	Approaches Based on Permutations for Partitioning Sparse Matrices on Multiprocessors. Journal of Supercomputing, 2005, 34, 41-61.	3.6	1
53	Fast Tomographic Reconstruction with Vectorized Backprojection. , 2008, , .		1
54	Ultra-fast Tomographic Reconstruction with a Highly Optimized Weighted Back-Projection Algorithm. , 2010, , .		1

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55	Real-Time Electron Tomography Based on GPU Computing. Lecture Notes in Computer Science, 2011, , 201-208.	1.3	1
56	A Data Partitioning Model for Highly Heterogeneous Systems. Lecture Notes in Computer Science, 2017, , 468-479.	1.3	1
57	Solving Eigenproblems on Multicomputers: Two Different Approaches. International Journal of Computers and Applications, 2004, 26, 1-10.	1.3	0
58	Analysis of the Interaction of Electromagnetic Signals with Thin-Wires Structures. Multiprocessing Issues for an Iterative Method. Lecture Notes in Computer Science, 2005, , 78-89.	1.3	0
59	Matrix Weighted Back-Projection Accelerates Tomographic Reconstruction. , 2008, , .		0
60	Parallel implementation of RX anomaly detection on multi-core processors: impact of data partitioning strategies. Proceedings of SPIE, 2011, , .	0.8	0
61	Multi-core Desktop Processors Make Possible Real-Time Electron Tomography. , 2011, , .		0
62	A VHDL Library to Analyse Fault Tolerant Techniques. Lecture Notes in Computer Science, 2003, , 1036-1039.	1.3	0
63	Parallel Simulation of Three–Dimensional Bursting with MPI and OpenMP. Lecture Notes in Computer Science, 2006, , 106-113.	1.3	0
64	Three-dimensional Bursting and Parallel Computing. International Journal for Multiscale Computational Engineering, 2007, 5, 39-46.	1.2	0
65	Improving the Energy Efficiency of Evolutionary Multi-objective Algorithms. Lecture Notes in Computer Science, 2016, , 62-75.	1.3	0
66	EDUCATIONAL STRATEGIES BASED ON LOW-COST PLATFORMS IN THE AREA OF COMPUTER ENGINEERING. , 2017, , .		0