Jiri Jaros

List of Publications by Year in descending order

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Version: 2024-02-01

57 papers	1,090 citations	759233 12 h-index	454955 30 g-index
63 all docs	63 docs citations	63 times ranked	967 citing authors

#	Article	IF	Citations
1	Broadband All-Optical Plane-Wave Ultrasound Imaging System Based on a Fabryâ€“Perot Scanner. IEEE Transactions on Ultrasonics, Ferroelectrics, and Frequency Control, 2021, 68, 1007-1016.	3.0	13
2	Distributed evolutionary design of HIFU treatment plans. , 2021, , .		0
3	Pseudospectral Time-Domain (PSTD) Methods for the Wave Equation: Realizing Boundary Conditions with Discrete Sine and Cosine Transforms. Journal of Theoretical and Computational Acoustics, 2021, 29, .	1.1	1
4	Distributed Evolutionary Design of High Intensity Focused Ultrasound Treatment Plans[*]. , 2021, , .		0
5	Experimental Validation of k-Wave: Nonlinear Wave Propagation in Layered, Absorbing Fluid Media. IEEE Transactions on Ultrasonics, Ferroelectrics, and Frequency Control, 2020, 67, 81-91.	3.0	38
6	Nonlinear ultrasound simulation in an axisymmetric coordinate system using a k-space pseudospectral method. Journal of the Acoustical Society of America, 2020, 148, 2288-2300.	1.1	18
7	k-Dispatch. , 2020, , .		3
8	Accelerated Design of HIFU Treatment Plans Using Island-Based Evolutionary Strategy. Lecture Notes in Computer Science, 2020, , 463-478.	1.3	2
9	Representing arbitrary acoustic source and sensor distributions in Fourier collocation methods. Journal of the Acoustical Society of America, 2019, 146, 278-288.	1.1	34
10	Evaluation of the Suitability of Intel Xeon Phi Clusters for the Simulation of Ultrasound Wave Propagation Using Pseudospectral Methods. Lecture Notes in Computer Science, 2019, , 577-590.	1.3	1
11	Rapid calculation of acoustic fields from arbitrary continuous-wave sources. Journal of the Acoustical Society of America, 2018, 143, 529-537.	1.1	28
12	Full Modeling of High-Intensity Focused Ultrasound and Thermal Heating in the Kidney Using Realistic Patient Models. IEEE Transactions on Biomedical Engineering, 2018, 65, 969-979.	4.2	20
13	The Effect of Tissue Physiological Variability on Transurethral Ultrasound Therapy of the Prostate. , 2018, 2018, 5701-5704.		0
14	Performance and accuracy analysis of nonlinear k-Wave simulations using local domain decomposition with an 8-GPU server. Proceedings of Meetings on Acoustics, 2018, , .	0.3	3
15	GPU-Accelerated Simulation of Elastic Wave Propagation. , 2018, , .		1
16	Full Modeling of High-Intensity Focused Ultrasound and Thermal Heating in the Kidney Using Realistic Patient Models. IEEE Transactions on Biomedical Engineering, 2018, 65, 2660-2670.	4.2	12
17	Transurethral ultrasound therapy of the prostate in the presence of calcifications: A simulation study. Medical Physics, 2018, 45, 4793-4805.	3.0	6
18	Efficient Low-Resource Compression of HIFU Data. Information (Switzerland), 2018, 9, 155.	2.9	3

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19	Design of HIFU treatment plans using an evolutionary strategy. , 2018, , .		5
20	Beam distortion due to gold fiducial markers during salvage highâ€intensity focused ultrasound in the prostate. Medical Physics, 2017, 44, 679-693.	3.0	8
21	Accurate simulation of transcranial ultrasound propagation for ultrasonic neuromodulation and stimulation. Journal of the Acoustical Society of America, 2017, 141, 1726-1738.	1.1	103
22	Efficient lossy compression of ultrasound data. , 2017, , .		1
23	The Investigation of the ARMv7 and Intel Haswell Architectures Suitability for Performance and Energy-Aware Computing. Lecture Notes in Computer Science, 2017, , 377-393.	1.3	4
24	Control of broadband optically generated ultrasound pulses using binary amplitude holograms. Journal of the Acoustical Society of America, 2016, 139, 1637-1647.	1.1	19
25	Advanced photoacoustic image reconstruction using the k-Wave toolbox. Proceedings of SPIE, 2016, , .	0.8	10
26	Nonlinear 3-D simulation of high-intensity focused ultrasound therapy in the Kidney. , 2016, 2016, 5648-5651.		15
27	Full-wave nonlinear ultrasound simulation on distributed clusters with applications in high-intensity focused ultrasound. International Journal of High Performance Computing Applications, 2016, 30, 137-155.	3.7	50
28	Many Core Acceleration of the Boundary Element Method. Lecture Notes in Computer Science, 2016, , 116-125.	1.3	4
29	Spectral Domain Decomposition Using Local Fourier Basis: Application to Ultrasound Simulation on a Cluster of GPUs. Supercomputing Frontiers and Innovations, 2016, 3, .	0.4	4
30	Optimisation of Water Management Systems Using a GPU-Accelerated Differential Evolution. , 2015, , .		1
31	Weighted Decomposition in High-Performance Lattice-Boltzmann Simulations: Are Some Lattice Sites More Equal than Others?. Lecture Notes in Computer Science, 2015, , 28-38.	1.3	3
32	GPU-accelerated evolutionary design of the complete exchange communication on wormhole networks. , 2014, , .		1
33	Modelling elastic wave propagation using the k-Wave MATLAB Toolbox. , 2014, , .		55
34	Solving the Multidimensional Knapsack Problem using a CUDA accelerated PSO. , 2014, , .		6
35	Parallelisation of the 3D Fast Fourier Transform Using the Hybrid OpenMP/MPI Decomposition. Lecture Notes in Computer Science, 2014, , 100-112.	1.3	5
36	Implementation of 3D FFTs Across Multiple GPUs in Shared Memory Environments. , 2012, , .		5

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37	Modelling nonlinear ultrasound propagation in absorbing media using the k-Wave toolbox: experimental validation. , 2012, , .		21
38	Multi-GPU island-based genetic algorithm for solving the knapsack problem. , 2012, , .		26
39	Modeling nonlinear ultrasound propagation in heterogeneous media with power law absorption using a k-space pseudospectral method. Journal of the Acoustical Society of America, 2012, 131, 4324-4336.	1.1	372
40	A Fair Comparison of Modern CPUs and GPUs Running the Genetic Algorithm under the Knapsack Benchmark. Lecture Notes in Computer Science, 2012, , 426-435.	1.3	14
41	Acceleration of grammatical evolution using graphics processing units. , 2011, , .		10
42	Parallel Genetic Algorithm on the CUDA Architecture. Lecture Notes in Computer Science, 2010, , 442-451.	1.3	104
43	Optimizing Collective Communications on 2D-Mesh and Fat Tree NoC. , 2010, , .		5
44	Evolutionary-based conflict-free scheduling of collective communications on spidergon NoCs. , 2010, , .		1
45	Parallel BMDA with an aggregation of probability models. , 2009, , .		2
46	Evolutionary optimization of multistage interconnection networks performance. , 2009, , .		5
47	Parallel Bivariate Marginal Distribution Algorithm with Probability Model Migration. Studies in Computational Intelligence, 2008, , 3-23.	0.9	7
48	An evolutionary design technique for collective communications on optimal diameter-degree networks. , 2008, , .		1
49	Migration of probabilistic models for island-based bivariate EDA algorithm. , 2007, , .		2
50	An evolutionary approach to collective communication scheduling. , 2007, , .		5
51	Optimum Topology-Aware Scheduling of Many-to-Many Collective Communications. , 2007, , .		1
52	Parallel BMDA with probability model migration. , 2007, , .		7
53	Advanced Bayesian optimization algorithms applied in decomposition problems. , 0, , .		2
54	Complexity of Collective Communications on NoCs. , 0, , .		6

#	Article	IF	Citations
55	Performance of Collective Communications on Interconnection Networks with Fat nodes and Edges. , 0, , .		1
56	Evolutionary Design of OAB and AAB Communication Schedules for Networking Systems on Chips. , 0, , .		0
57	Evolutionary Design of Fault Tolerant Collective Communications. Lecture Notes in Computer Science, 0, , 261-272.	1.3	1