

Michael Mascagni

List of Publications by Year in descending order

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46
papers

724
citations

430874

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552781

26
g-index

46
all docs

46
docs citations

46
times ranked

480
citing authors

#	ARTICLE	IF	CITATIONS
1	Testing parallel random number generators. <i>Parallel Computing</i> , 2003, 29, 69-94.	2.1	67
2	The Backward Euler Method for Numerical Solution of the Hodgkin-Huxley Equations of Nerve Conduction. <i>SIAM Journal on Numerical Analysis</i> , 1990, 27, 941-962.	2.3	47
3	Monte Carlo Methods for Calculating Some Physical Properties of Large Molecules. <i>SIAM Journal of Scientific Computing</i> , 2004, 26, 339-357.	2.8	47
4	Parameterizing parallel multiplicative lagged-Fibonacci generators. <i>Parallel Computing</i> , 2004, 30, 899-916.	2.1	41
5	A Fast, High Quality, and Reproducible Parallel Lagged-Fibonacci Pseudorandom Number Generator. <i>Journal of Computational Physics</i> , 1995, 119, 211-219.	3.8	37
6	Convergence Analysis of Markov Chain Monte Carlo Linear Solvers Using Ulam-von Neumann Algorithm. <i>SIAM Journal on Numerical Analysis</i> , 2013, 51, 2107-2122.	2.3	35
7	The Simulation-Tabulation Method for Classical Diffusion Monte Carlo. <i>Journal of Computational Physics</i> , 2001, 174, 925-946.	3.8	32
8	Electrical capacitance of the unit cube. <i>Journal of Applied Physics</i> , 2004, 95, 3798-3802.	2.5	31
9	Mechanism for the Universal Pattern of Activity in Developing Neuronal Networks. <i>Journal of Neurophysiology</i> , 2010, 103, 2208-2221.	1.8	30
10	The random walk on the boundary method for calculating capacitance. <i>Journal of Computational Physics</i> , 2004, 195, 465-473.	3.8	29
11	Parallel linear congruential generators with prime moduli. <i>Parallel Computing</i> , 1998, 24, 923-936.	2.1	27
12	A parallelizing algorithm for computing solutions to arbitrarily branched cable neuron models. <i>Journal of Neuroscience Methods</i> , 1991, 36, 105-114.	2.5	24
13	An initial-boundary value problem of physiological significance for equations of nerve conduction. <i>Communications on Pure and Applied Mathematics</i> , 1989, 42, 213-227.	3.1	22
14	On the rapid estimation of permeability for porous media using Brownian motion paths. <i>Physics of Fluids</i> , 2000, 12, 1699-1709.	4.0	22
15	$\tilde{\mu}$ -Shell error analysis for "Walk On Spheres" algorithms. <i>Mathematics and Computers in Simulation</i> , 2003, 63, 93-104.	4.4	22
16	A Feynman-Kac path-integral implementation for Poisson's equation using an h-conditioned Green's function. <i>Mathematics and Computers in Simulation</i> , 2003, 62, 347-355.	4.4	21
17	A decentralized parallel implementation for parallel tempering algorithm. <i>Parallel Computing</i> , 2009, 35, 269-283.	2.1	20
18	Parallel linear congruential generators with Sophie-Germain moduli. <i>Parallel Computing</i> , 2004, 30, 1217-1231.	2.1	18

#	ARTICLE	IF	CITATIONS
19	Efficient modified "walk on spheres" algorithm for the linearized Poisson-Boltzmann equation. Applied Physics Letters, 2001, 78, 787-789.	3.3	17
20	SpaRC: scalable sequence clustering using Apache Spark. Bioinformatics, 2019, 35, 760-768.	4.1	15
21	Monte Carlo methods for computing the capacitance of the unit cube. Mathematics and Computers in Simulation, 2010, 80, 1089-1095.	4.4	14
22	On the Scrambled Halton Sequence. Monte Carlo Methods and Applications, 2004, 10, .	0.8	12
23	Using Correlated Monte Carlo Sampling for Efficiently Solving the Linearized Poisson-Boltzmann Equation Over a Broad Range of Salt Concentration. Journal of Chemical Theory and Computation, 2010, 6, 300-314.	5.3	12
24	Numerical Optimization of a Walk-on-Spheres Solver for the Linear Poisson-Boltzmann Equation. Communications in Computational Physics, 2013, 13, 195-206.	1.7	12
25	The Impact of Soft Error Event Topography on the Reliability of Computer Memories. IEEE Transactions on Reliability, 2017, 66, 966-979.	4.6	9
26	Geometry entrapment in Walk-on-Subdomains. Monte Carlo Methods and Applications, 2019, 25, 329-340.	0.8	9
27	A Gradient Random Walk Method for Two-Dimensional Reaction-Diffusion Equations. SIAM Journal of Scientific Computing, 1994, 15, 1280-1293.	2.8	8
28	Non-replicability circumstances in a neural network model with Hodgkin-Huxley-type neurons. Journal of Computational Neuroscience, 2020, 48, 357-363.	1.0	6
29	Parallel Quasirandom Walks on the Boundary. Monte Carlo Methods and Applications, 2004, 10, .	0.8	5
30	Constriction model of actomyosin ring for cytokinesis by fission yeast using a two-state sliding filament mechanism. Journal of Chemical Physics, 2014, 141, 125101.	3.0	5
31	Revisiting Kac's method: A Monte Carlo algorithm for solving the Telegrapher's equations. Mathematics and Computers in Simulation, 2019, 156, 178-193.	4.4	5
32	Analysis and comparison of Green's function first-passage algorithms with "Walk on Spheres" algorithms. Mathematics and Computers in Simulation, 2003, 63, 605-613.	4.4	4
33	High performance computing in quantitative finance: A review from the pseudo-random number generator perspective. Monte Carlo Methods and Applications, 2014, 20, .	0.8	4
34	A computational investigation of the optimal Halton sequence in QMC applications. Monte Carlo Methods and Applications, 2019, 25, 187-207.	0.8	3
35	Quasirandom Sequences in Branching Random Walks *. Monte Carlo Methods and Applications, 2004, 10, .	0.8	2
36	Examining sharp restart in a Monte Carlo method for the linearized Poisson-Boltzmann equation. Monte Carlo Methods and Applications, 2020, 26, 223-244.	0.8	2

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37	Gaussian variant of Freivaldsâ€™ algorithm for efficient and reliable matrix product verification. Monte Carlo Methods and Applications, 2020, 26, 273-284.	0.8	2
38	Parallel random number generators in Monteâ€”Carloâ€”derivativeâ€”pricing: Anâ€”application-basedâ€”test. Monte Carlo Methods and Applications, 2012, 18, .	0.8	1
39	Memory efficient lagged-Fibonacci random number generators for GPU supercomputing. Monte Carlo Methods and Applications, 2015, 21, .	0.8	1
40	Feistel-inspired scrambling improves the quality of linear congruential generators. Monte Carlo Methods and Applications, 2017, 23, .	0.8	1
41	Validating the Correctness of Outsourced Computational Tasks Using Pseudorandom Number Generators. , 2017, , .		1
42	The white rat of numerical reproducibility. AIP Conference Proceedings, 2021, , .	0.4	1
43	Three Numerical Reproducibility Issues That Can Be Explained as Round-Off Error. Lecture Notes in Computer Science, 2019, , 452-462.	1.3	1
44	Random Number Generation for serial, parallel, distributed, and Grid-based financial computations. Parallel and Distributed Processing Symposium (IPDPS), Proceedings of the International Conference on, 2008, , .	1.0	0
45	Scrambled Sobolâ€™ sequences via permutation. Monte Carlo Methods and Applications, 2009, 15, .	0.8	0
46	Parallel pseudo-random number generators: A derivative pricing perspective with the Heston stochastic volatility model. Monte Carlo Methods and Applications, 2013, .	0.8	0