Susan M Mniszewski

List of Publications by Year
in descending order

38 papers	812 citations	759233 12 h-index	610901 24 g-index
40 all docs	40 docs citations	40 times ranked	851 citing authors

#	Article	IF	Citations
1	Sampling electronic structure quadratic unconstrained binary optimization problems (QUBOs) with Ocean and Mukai solvers. PLoS ONE, 2022, 17, e0263849.	2.5	5
2	Cabana: A Performance Portable Library for Particle-Based Simulations. Journal of Open Source Software, 2022, 7, 4115.	4.6	7
3	Controlled precision QUBO-based algorithm to compute eigenvectors of symmetric matrices. PLoS ONE, 2022, 17, e0267954.	2.5	3
4	Toward a QUBO-Based Density Matrix Electronic Structure Method. Journal of Chemical Theory and Computation, 2022, 18, 4177-4185.	5.3	2
5	Quantum Perturbation Theory Using Tensor Cores and a Deep Neural Network. Journal of Chemical Theory and Computation, 2022, 18, 4255-4268.	5.3	7
6	A QUBO formulation for top-Ï„ eigencentrality nodes. PLoS ONE, 2022, 17, e0271292.	2.5	2
7	Reduction of the molecular hamiltonian matrix using quantum community detection. Scientific Reports, 2021, 11, 4099.	3.3	11
8	Multilevel Combinatorial Optimization across Quantum Architectures. ACM Transactions on Quantum Computing, 2021, 2, 1-29.	4.3	30
9	Mixed Precision Fermi-Operator Expansion on Tensor Cores from a Machine Learning Perspective. Journal of Chemical Theory and Computation, 2021, 17, 2256-2265.	5.3	9
10	Enabling particle applications for exascale computing platforms. International Journal of High Performance Computing Applications, 2021, 35, 572-597.	3.7	15
11	Computing molecular excited states on a D-Wave quantum annealer. Scientific Reports, 2021, 11, 18796.	3.3	16
12	Quantum-Based Molecular Dynamics Simulations Using Tensor Cores. Journal of Chemical Theory and Computation, 2021, 17, 6180-6192.	5.3	12
13	Detecting multiple communities using quantum annealing on the D-Wave system. PLoS ONE, 2020, 15, e0227538.	2.5	40
14	Quantum isomer search. PLoS ONE, 2020, 15, e0226787.	2.5	10
15	Using Graph Partitioning for Scalable Distributed Quantum Molecular Dynamics. Algorithms, 2019, 12, 187.	2.1	7
16	A Hybrid Approach for Solving Optimization Problems on Small Quantum Computers. Computer, 2019, 52, 18-26.	1.1	38
17	Linear Scaling Pseudo Fermi-Operator Expansion for Fractional Occupation. Journal of Chemical Theory and Computation, 2019, 15, 190-200.	5.3	5
18	Graph Partitioning as Quadratic Unconstrained Binary Optimization (QUBO) on Spiking Neuromorphic Hardware. , 2019, , .		10

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19	The basic matrix library (BML) for quantum chemistry. Journal of Supercomputing, 2018, 74, 6201-6219.	3.6	12
20	Graph Partitioning using Quantum Annealing on the D-Wave System. , 2017, , .		99
21	Graph-based linear scaling electronic structure theory. Journal of Chemical Physics, 2016, 144, 234101.	3.0	29
22	Discrete event performance prediction of speculatively parallel temperature-accelerated dynamics. Simulation, 2016, 92, 1065-1086.	1.8	11
23	Recursive Factorization of the Inverse Overlap Matrix in Linear-Scaling Quantum Molecular Dynamics Simulations. Journal of Chemical Theory and Computation, 2016, 12, 3063-3073.	5.3	19
24	Integrating predictive analytics into a spatiotemporal epidemic simulation. , 2015, , .		15
25	TADSim. ACM Transactions on Modeling and Computer Simulation, 2015, 25, 1-26.	0.8	12
26	An Evaluation of Threaded Models for a Classical MD Proxy Application. , 2014, , .		7
27	Optimizing human activity patterns using global sensitivity analysis. Computational and Mathematical Organization Theory, 2014, 20, 394-416.	2.0	8
28	Understanding the Impact of Face Mask Usage Through Epidemic Simulation of Large Social Networks. Intelligent Systems Reference Library, 2014, , 97-115.	1.2	17
29	Molecular dynamics simulations of detonation on the roadrunner supercomputer. , 2012, , .		0
30	Self-consistent tight-binding molecular dynamics simulations of shock-induced reactions in hydrocarbons. , 2012, , .		2
31	Subband coding for large-scale scientific simulation data using JPEG 2000. , 2012, , .		2
32	Revisiting wavelet compression for large-scale climate data using JPEG 2000 and ensuring data precision. , 2011, , .		43
33	Real-world hydrologic assessment of a fully-distributed hydrological model in a parallel computing environment. Journal of Hydrology, 2011, 409, 483-496.	5.4	95
34	Designing systems for large-scale, discrete-event simulations: Experiences with the FastTrans parallel microsimulator. , 2009, , .		13
35	Pandemic simulation of antiviralsâ€‰+â€‰school closures: buying time until strain-specific vaccine is available. Computational and Mathematical Organization Theory, 2008, 14, 209-221.	2.0	27
36	Semi-empirical power-law scaling of new infection rate to model epidemic dynamics with inhomogeneous mixing. Mathematical Biosciences, 2006, 203, 301-318.	1.9	49

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37	A categorization approach to automated ontological function annotation. Protein Science, 2006, 15, 1544-1549.	7.6	59
38	The Gene Ontology Categorizer. Bioinformatics, 2004, 20, i169-i177.	4.1	64