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List of Publications by Year
in descending order

47
papers

1,195
citations

394286
19
h-index

395590
33
g-index

48
all docs

48
docs citations

48
times ranked

756
citing authors

#	Article	IF	Citations
1	Probing for quantum speedup in spin-glass problems with planted solutions. Physical Review A, 2015, 92, .	1.0	117
2	Performance of the quantum adiabatic algorithm on random instances of two optimization problems on regular hypergraphs. Physical Review A, 2012, 86, .	1.0	77
3	Exponential complexity of the quantum adiabatic algorithm for certain satisfiability problems. Physical Review E, 2011, 84, 061152.	0.8	71
4	Power of Pausing: Advancing Understanding of Thermalization in Experimental Quantum Annealers. Physical Review Applied, 2019, 11, .	1.5	70
5	Quantum annealing correction with minor embedding. Physical Review A, 2015, 92, .	1.0	67
6	Unraveling Quantum Annealers using Classical Hardness. Scientific Reports, 2015, 5, 15324.	1.6	60
7	Quantum Annealing for Constrained Optimization. Physical Review Applied, 2016, 5, .	1.5	57
8	Analog errors in quantum annealing: doom and hope. Npj Quantum Information, 2019, 5, .	2.8	47
9	Temperature Scaling Law for Quantum Annealing Optimizers. Physical Review Letters, 2017, 119, 110502.	2.9	44
10	Quantum annealing of the p -spin model under inhomogeneous transverse field driving. Physical Review A, 2018, 98, .	1.0	42
11	Driver Hamiltonians for constrained optimization in quantum annealing. Physical Review A, 2016, 93, .	1.0	38
12	On the computational complexity of curing non-stoquastic Hamiltonians. Nature Communications, 2019, 10, 1571.	5.8	38
13	Energetic Cost of Superadiabatic Quantum Computation. Frontiers in ICT, 2016, 3, .	3.6	33
14	Thermalization, Freeze-out, and Noise: Deciphering Experimental Quantum Annealers. Physical Review Applied, 2017, 8, .	1.5	33
15	Quantum gates with controlled adiabatic evolutions. Physical Review A, 2015, 91, .	1.0	31
16	No-Broadcasting Theorem and Its Classical Counterpart. Physical Review Letters, 2008, 100, 210502.	2.9	30
17	Solving the graph-isomorphism problem with a quantum annealer. Physical Review A, 2012, 86, .	1.0	28
18	Analog errors in Ising machines. Quantum Science and Technology, 2019, 4, 02LT03.	2.6	27

#	Article	IF	Citations
19	Practical engineering of hard spin-glass instances. Physical Review A, 2016, 94, .	1.0	22
20	Excitation gap from optimized correlation functions in quantum Monte Carlo simulations. Physical Review E, 2012, 85, 036705.	0.8	19
21	Off-diagonal expansion quantum Monte Carlo. Physical Review E, 2017, 96, 063309.	0.8	18
22	De-Signing Hamiltonians for Quantum Adiabatic Optimization. Quantum - the Open Journal for Quantum Science, 0, 4, 334.	0.0	18
23	3-regular three-XORSAT planted solutions benchmark of classical and quantum heuristic optimizers. Quantum Science and Technology, 2022, 7, 025008.	2.6	18
24	Advantages of Unfair Quantum Ground-State Sampling. Scientific Reports, 2017, 7, 1044.	1.6	15
25	Strongly Interacting Atom Lasers in Three-Dimensional Optical Lattices. Physical Review Letters, 2010, 105, 180401.	2.9	14
26	Estimating the density of states of frustrated spin systems. New Journal of Physics, 2019, 21, 073065.	1.2	14
27	Quantum Algorithm for Simulating Hamiltonian Dynamics with an Off-diagonal Series Expansion. Quantum - the Open Journal for Quantum Science, 0, 5, 426.	0.0	14
28	Quantum Algorithm for Time-Dependent Hamiltonian Simulation by Permutation Expansion. PRX Quantum, 2021, 2, .	3.5	14
29	Continuous-time quantum algorithms for unstructured problems. Journal of Physics A: Mathematical and Theoretical, 2014, 47, 045305.	0.7	13
30	Hardness and Ease of Curing the Sign Problem for Two-Local Qubit Hamiltonians. SIAM Journal on Computing, 2020, 49, 1332-1362.	0.8	11
31	Equation Planting: A Tool for Benchmarking Ising Machines. Physical Review Applied, 2019, 12, .	1.5	10
32	Resolution of the sign problem for a frustrated triplet of spins. Physical Review E, 2019, 99, 033306.	0.8	10
33	How fast can quantum annealers count?. Journal of Physics A: Mathematical and Theoretical, 2014, 47, 235304.	0.7	9
34	Elucidating the Interplay between Nonâ€Stoquasticity and the Sign Problem. Advanced Quantum Technologies, 2020, 3, 1900108.	1.8	9
35	Determining quantum Monte Carlo simulability with geometric phases. Physical Review Research, 2021, 3, .	1.3	9
36	Off-diagonal series expansion for quantum partition functions. Journal of Statistical Mechanics: Theory and Experiment, 2018, 2018, 053102.	0.9	8

#	Article	IF	Citations
37	Analog nature of quantum adiabatic unstructured search. New Journal of Physics, 2019, 21, 113025.	1.2	8
38	Calculating the divided differences of the exponential function by addition and removal of inputs. Computer Physics Communications, 2020, 254, 107385.	3.0	8
39	How quantum is the speedup in adiabatic unstructured search?. Quantum Information Processing, 2019, 18, 1.	1.0	6
40	Localization transition induced by programmable disorder. Physical Review B, 2022, 105, .	1.1	5
41	Solving spin glasses with optimized trees of clustered spins. Physical Review E, 2017, 96, 022105.	0.8	4
42	Permutation matrix representation quantum Monte Carlo. Journal of Statistical Mechanics: Theory and Experiment, 2020, 2020, 073105.	0.9	4
43	Discriminating nonisomorphic graphs with an experimental quantum annealer. Physical Review A, 2020, 102, .	1.0	2
44	An integral-free representation of the Dyson series using divided differences. New Journal of Physics, 2021, 23, 103035.	1.2	1
45	Calculating elements of matrix functions using divided differences. Computer Physics Communications, 2022, 271, 108219.	3.0	1
46	Solving Quantum Spin Glasses with Off-Diagonal Expansion Quantum Monte Carlo. Journal of Physics: Conference Series, 2018, 1136, 012007.	0.3	0
47	Fundamental Limitations to the Scalability of Quantum Annealing Optimizers. Advances in Parallel Computing, 2019, , .	0.3	0