

Wolfgang Lechner

List of Publications by Year in descending order

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papers

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567281

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all docs

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docs citations

29
times ranked

671
citing authors

#	ARTICLE	IF	CITATIONS
1	Perspectives of quantum annealing: methods and implementations. Reports on Progress in Physics, 2020, 83, 054401.	20.1	226
2	A quantum annealing architecture with all-to-all connectivity from local interactions. Science Advances, 2015, 1, e1500838.	10.3	162
3	A transmon quantum annealer: decomposing many-body Ising constraints into pair interactions. Quantum Science and Technology, 2016, 1, 015008.	5.8	48
4	Rapid counter-diabatic sweeps in lattice gauge adiabatic quantum computing. New Journal of Physics, 2019, 21, 043025.	2.9	39
5	From Classical to Quantum Glasses with Ultracold Polar Molecules. Physical Review Letters, 2013, 111, 185306.	7.8	37
6	Many-body quantum heat engines with shortcuts to adiabaticity. Physical Review Research, 2020, 2, .	3.6	35
7	Quantum Approximate Optimization With Parallelizable Gates. IEEE Transactions on Quantum Engineering, 2020, 1, 1-6.	4.9	27
8	Qualifying quantum approaches for hard industrial optimization problems. A case study in the field of smart-charging of electric vehicles. EPJ Quantum Technology, 2021, 8, 12.	6.3	25
9	Probing entanglement in adiabatic quantum optimization with trapped ions. Frontiers in Physics, 2015, 3, .	2.1	24
10	Quantum Optimization via Four-Body Rydberg Gates. Physical Review Letters, 2022, 128, 120503.	7.8	20
11	Monodisperse cluster crystals: Classical and quantum dynamics. Physical Review E, 2015, 92, 052307.	2.1	19
12	Programmable superpositions of Ising configurations. Physical Review A, 2018, 97, .	2.5	19
13	Two-parameter counter-diabatic driving in quantum annealing. Physical Review Research, 2021, 3, .	3.6	19
14	Glass Transitions in Monodisperse Cluster-Forming Ensembles: Vortex Matter in Type-1.5 Superconductors. Physical Review Letters, 2017, 118, 067001.	7.8	18
15	Embedding Overhead Scaling of Optimization Problems in Quantum Annealing. PRX Quantum, 2021, 2, .	9.2	16
16	Self-organized defect strings in two-dimensional crystals. Physical Review E, 2013, 88, 060402.	2.1	15
17	Quantum phase transition with inhomogeneous driving in the Lechner-Hauke-Zoller model. Physical Review A, 2019, 100, .	2.5	13
18	Role of Quantum Fluctuations in the Hexatic Phase of Cold Polar Molecules. Physical Review Letters, 2014, 112, 255301.	7.8	12

#	ARTICLE	IF	CITATIONS
19	Multi-spin counter-diabatic driving in many-body quantum Otto refrigerators. Quantum - the Open Journal for Quantum Science, 0, 4, 377.	0.0	12
20	A Quantum N-Queens Solver. Quantum - the Open Journal for Quantum Science, 0, 3, 149.	0.0	11
21	Tunable defect interactions and supersolidity in dipolar quantum gases on a lattice potential. Physical Review A, 2015, 92, .	2.5	10
22	Modular Parity Quantum Approximate Optimization. PRX Quantum, 2022, 3, .	9.2	10
23	Designing ground states of Hopfield networks for quantum state preparation. Physical Review A, 2019, 99, .	2.5	7
24	Quantum expectation-maximization algorithm. Physical Review A, 2020, 101, .	2.5	6
25	Minimal constraints in the parity formulation of optimization problems. New Journal of Physics, 2021, 23, 083039.	2.9	5
26	Polynomial scaling enhancement in the ground-state preparation of Ising spin models via counterdiabatic driving. Physical Review A, 2022, 105, .	2.5	5
27	Demonstration and modeling of time-bin entangled photons from a quantum dot in a nanowire. AIP Advances, 2022, 12, 055115.	1.3	5
28	Spatial Patterns in Rydberg Excitations from Logarithmic Pair Interactions. Physical Review Letters, 2015, 115, 125301.	7.8	4
29	Entropy and kinetics of point defects in two-dimensional dipolar crystals. Physical Review E, 2015, 91, 032304.	2.1	3