Panagiotis Kl Barkoutsos

List of Publications by Year
in descending order

24 papers	1,336 citations	687363 13 h-index	752698 20 g-index
24 all docs	24 docs citations	24 times ranked	961 citing authors

#	Article	IF	Citations
1	Quantum optimization using variational algorithms on near-term quantum devices. Quantum Science and Technology, 2018, 3, 030503.	5.8	411
2	Quantum algorithms for electronic structure calculations: Particle-hole Hamiltonian and optimized wave-function expansions. Physical Review A, 2018, 98, .	2.5	214
3	Quantum equation of motion for computing molecular excitation energies on a noisy quantum processor. Physical Review Research, 2020, 2, .	3.6	110
4	Improving Variational Quantum Optimization using CVaR. Quantum - the Open Journal for Quantum Science, 0, 4, 256.	0.0	94
5	Quantum orbital-optimized unitary coupled cluster methods in the strongly correlated regime: Can quantum algorithms outperform their classical equivalents?. Journal of Chemical Physics, 2020, 152, 124107.	3.0	91
6	Resource-efficient quantum algorithm for protein folding. Npj Quantum Information, 2021, 7, .	6.7	62
7	Quantum implementation of an artificial feed-forward neural network. Quantum Science and Technology, 2020, 5, 044010.	5.8	46
8	Quantum-optimal-control-inspired ansatz for variational quantum algorithms. Physical Review Research, 2021, 3, .	3.6	37
9	Learning to Measure: Adaptive Informationally Complete Generalized Measurements for Quantum Algorithms. PRX Quantum, 2021, 2, .	9.2	37
10	Nonunitary Operations for Ground-State Calculations in Near-Term Quantum Computers. Physical Review Letters, 2019, 123, 130501.	7.8	31
11	Quantum HF/DFT-embedding algorithms for electronic structure calculations: Scaling up to complex molecular systems. Journal of Chemical Physics, 2021, 154, 114105.	3.0	29
12	Microcanonical and finite-temperature ab initio molecular dynamics simulations on quantum computers. Physical Review Research, 2021, 3, .	3.6	26
13	Algorithmic Error Mitigation Scheme for Current Quantum Processors. Quantum - the Open Journal for Quantum Science, 0, 5, 492.	0.0	24
14	Variationalâ€‰Learningâ€‰forâ€‰Quantumâ€‰Artificial Neural Networks. IEEE Transactions on Quantum Engineering, 2021, 2, 1-10.	4.9	19
15	Variational quantum simulation of ultrastrong light-matter coupling. Physical Review Research, 2020, 2, .	3.6	16
16	Quantum algorithm for alchemical optimization in material design. Chemical Science, 2021, 12, 4345-4352.	7.4	14
17	Ancilla-free implementation of generalized measurements for qubits embedded in a qudit space. Physical Review Research, 2022, 4, .	3.6	14
18	Entanglement production and convergence properties of the variational quantum eigensolver. Physical Review A, 2020, 102, .	2.5	13

#	Article	IF	Citations
19	Variational learning for quantum artificial neural networks. , 2020, , .		12
20	Simulating a ring-like Hubbard system with a quantum computer. Physical Review Research, 2022, 4, .	3.6	10
21	Improved Accuracy on Noisy Devices by Nonunitary Variational Quantum Eigensolver for Chemistry Applications. Journal of Chemical Theory and Computation, 2021, 17, 3946-3954.	5.3	9
22	Improving readout in quantum simulations with repetition codes. Quantum Science and Technology, 0, , .	5.8	9
23	Considerations for evaluating thermodynamic properties with hybrid quantum-classical computing work flows. Physical Review A, 2022, 105, .	2.5	5
24	Coarse-grained intermolecular interactions on quantum processors. Physical Review A, 2022, 105, .	2.5	3