Man-Hong Yung

List of Publications by Year
in descending order

73	4,855	201674	98798
papers	citations	27	67
		h-index	g-index
76	76	76	3535
all docs	docs citations	times ranked	citing authors

#	Article	IF	Citations
1	A variational eigenvalue solver on a photonic quantum processor. Nature Communications, 2014, 5, 4213.	12.8	2,210
2	Simulating Chemistry Using Quantum Computers. Annual Review of Physical Chemistry, 2011, 62, 185-207.	10.8	224
3	Quantum implementation of the unitary coupled cluster for simulating molecular electronic structure. Physical Review A, 2017, 95, .	2.5	222
4	Perfect state transfer, effective gates, and entanglement generation in engineered bosonic and fermionic networks. Physical Review A, 2005, 71, .	2.5	166
5	Steady Bell State Generation via Magnon-Photon Coupling. Physical Review Letters, 2020, 124, 053602.	7.8	132
6	Plug-and-Play Approach to Nonadiabatic Geometric Quantum Gates. Physical Review Letters, 2019, 123, 100501.	7.8	121
7	Experimental Realization of Nonadiabatic Shortcut to Non-Abelian Geometric Gates. Physical Review Letters, 2019, 122, 080501.	7.8	118
8	Quantum speed limit for perfect state transfer in one dimension. Physical Review A, 2006, 74, .	2.5	109
9	Experimental Machine Learning of Quantum States. Physical Review Letters, 2018, 120, 240501.	7.8	101
10	Experimental perfect state transfer of an entangled photonic qubit. Nature Communications, 2016, 7, 11339.	12.8	96
11	A quantum–quantum Metropolis algorithm. Proceedings of the National Academy of Sciences of the United States of America, 2012, 109, 754-759.	7.1	92
12	Faster quantum chemistry simulation on fault-tolerant quantum computers. New Journal of Physics, 2012, 14, 115023.	2.9	91
13	Enhancement of magnon-magnon entanglement inside a cavity. Physical Review B, 2020, 101, .	3.2	82
14	Exciton transport in thin-film cyanine dye J-aggregates. Journal of Chemical Physics, 2012, 137, 034109.	3.0	65
15	Demon-like algorithmic quantum cooling and its realization with quantum optics. Nature Photonics, 2014, 8, 113-118.	31.4	52
16	Solving Quantum Ground-State Problems with Nuclear Magnetic Resonance. Scientific Reports, 2011, 1, 88.	3.3	51
17	Digital quantum simulation of the statistical mechanics of a frustrated magnet. Nature Communications, 2012, 3, 880.	12.8	50
18	Spontaneous valley splitting and valley pseudospin field effect transistors of monolayer $VAgP_2Se_6$. Nanoscale, 2018, 10, 13986-13993.	5.6	50

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19	Vibronic Boson Sampling: Generalized Gaussian Boson Sampling for Molecular Vibronic Spectra at Finite Temperature. Scientific Reports, 2017, 7, 7462.	3.3	48
20	Automatic spin-chain learning to explore the quantum speed limit. Physical Review A, 2018, 97, .	2.5	47
21	Quantifying quantum coherence in experimentally observed neutrino oscillations. Physical Review A, 2018, 98, .	2.5	44
22	Holevo bound of entropic uncertainty in Schwarzschild spacetime. European Physical Journal C, 2018, 78, 1.	3.9	38
23	Nonadiabatic noncyclic geometric quantum computation in Rydberg atoms. Physical Review Research, 2020, 2, .	3.6	33
24	Low-depth quantum state preparation. Physical Review Research, 2021, 3, .	3.6	33
25	Time reversal and charge conjugation in an embedding quantum simulator. Nature Communications, 2015, 6, 7917.	12.8	29
26	Processor Core Model for Quantum Computing. Physical Review Letters, 2006, 96, 220501.	7.8	28
27	Neural-network-designed pulse sequences for robust control of singlet-triplet qubits. Physical Review A, 2018, 97, .	2.5	28
28	Wiggling skyrmion propagation under parametric pumping. Physical Review B, 2019, 99, .	3.2	28
29	Variational Quantum Simulation for Quantum Chemistry. Advanced Theory and Simulations, 2019, 2, 1800182.	2.8	26
30	Experimental Simultaneous Learning of Multiple Nonclassical Correlations. Physical Review Letters, 2019, 123, 190401.	7.8	25
31	Simulation of classical thermal states on a quantum computer: A transfer-matrix approach. Physical Review A, 2010, 82, .	2.5	24
32	Experimental study of Forrelation in nuclear spins. Science Bulletin, 2017, 62, 497-502.	9.0	23
33	Strongly nonlocal unextendible product bases do exist. Quantum - the Open Journal for Quantum Science, 0, 6, 619.	0.0	19
34	Robust bidirectional links for photonic quantum networks. Science Advances, 2016, 2, e1500672.	10.3	17
35	Linear-algebraic bath transformation for simulating complex open quantum systems. New Journal of Physics, 2014, 16, 123008.	2.9	16
36	Classification of magnetic forces acting on an antiferromagnetic domain wall. Physical Review B, 2018, 97, .	3.2	15

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37	Robust resource-efficient quantum variational ansatz through an evolutionary algorithm. Physical Review A, 2022, 105, .	2.5	15
38	Simulation of molecular spectroscopy with circuit quantum electrodynamics. Science Bulletin, 2018, 63, 293-299.	9.0	14
39	Cosmic censorship and the evolution of d-dimensional charged evaporating black holes. Physical Review D, 2020, 101, .	4.7	14
40	Robust stimulated Raman shortcut-to-adiabatic passage with invariant-based optimal control. Optics Express, 2021, 29, 7998.	3.4	14
41	Experimental Quantum Target Detection Approaching the Fundamental Helstrom Limit. Physical Review Letters, 2021, 127, 040504.	7.8	14
42	Graph-connectivity-based strong quantum nonlocality with genuine entanglement. Physical Review A, 2021, 104, .	2.5	14
43	Superrobust Geometric Control of a Superconducting Circuit. Physical Review Applied, 2021, 16, .	3.8	13
44	Super-robust nonadiabatic geometric quantum control. Physical Review Research, 2021, 3, .	3.6	12
45	Variational quantum packaged deflation for arbitrary excited states. Quantum Engineering, 2021, 3, e80.	2.5	12
46	Universal bound on sampling bosons in linear optics and its computational implications. National Science Review, 2019, 6, 719-729.	9.5	11
47	Decoherence Control of Nitrogen-Vacancy Centers. Scientific Reports, 2017, 7, 11937.	3.3	10
48	Quantum supremacy: some fundamental concepts. National Science Review, 2019, 6, 22-23.	9.5	10
49	Leakage Suppression for Holonomic Quantum Gates. Physical Review Applied, 2020, 14, .	3.8	10
50	One-shot detection limits of quantum illumination with discrete signals. Npj Quantum Information, 2020, 6, .	6.7	10
51	Incompatibility of observables as state-independent bound of uncertainty relations. Physical Review A, 2019, 100, .	2.5	9
52	Speedup in classical simulation of Gaussian boson sampling. Science Bulletin, 2020, 65, 832-841.	9.0	9
53	Generic detection-based error mitigation using quantum autoencoders. Physical Review A, 2021, 103, .	2.5	9
54	Coherent control with user-defined passage. Quantum Science and Technology, 2021, 6, 025002.	5.8	8

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55	Quantum speedup in adaptive boosting of binary classification. Science China: Physics, Mechanics and Astronomy, 2021, 64, 1.	5.1	8
56	Spin star as a switch for quantum networks. Journal of Physics B: Atomic, Molecular and Optical Physics, 2011, 44, 135504.	1.5	7
57	Why the quantitative condition fails to reveal quantum adiabaticity. New Journal of Physics, 2014, 16, 053023.	2.9	7
58	Emergence of antiferromagnetic quantum domain walls. Physical Review B, 2018, 98, .	3.2	6
59	Interaction-free measurement as quantum channel discrimination. Physical Review A, 2017, 96, .	2.5	5
60	Integrated Quantum-Walk Structure and NAND Tree on a Photonic Chip. Physical Review Letters, 2020, 125, 160502.	7.8	5
61	Observation of exceptional point in a PT broken non-Hermitian system simulated using a quantum circuit. Scientific Reports, 2021, 11, 13795.	3.3	5
62	Customizable Quantum Control via Stimulated Raman User-Defined Passage. Physical Review Applied, 2022, 17, .	3.8	5
63	Necessity for quantum coherence of nondegeneracy in energy flow. Physical Review A, 2019, 99, .	2.5	4
64	Error-resilient Floquet geometric quantum computation. Physical Review Research, 2021, 3, .	3.6	4
65	Landauer's principle in qubit-cavity quantum-field-theory interaction in vacuum and thermal states. Physical Review A, 2022, 105, .	2.5	4
66	Optimal Mechanism for Randomized Responses under Universally Composable Security Measure. , 2019, , .		3
67	Anomalies in the switching dynamics of C -type antiferromagnets and antiferromagnetic nanowires. Physical Review Research, 2019, 1, .	3.6	3
68	Anomalous spin entanglement in nonequilibrium systems. Physical Review A, 2018, 98, .	2.5	2
69	Minimal nonorthogonal gate decomposition for qubits with limited control. Physical Review A, 2019, 99, .	2.5	2
70	Wooing sea turtles back to China. Physics Today, 2010, 63, 12-12.	0.3	1
71	Experimental cryptographic verification for near-term quantum cloud computing. Science Bulletin, 2021, 66, 23-28.	9.0	1
72	Interferometric Activation of Quantum Dephasing Channels. , 2016, , .		0

#	ARTICLE	IF	CITATIONS
73	Emergence of Network Bifurcation Triggered by Entanglement. Quantum - the Open Journal for Quantum Science, 0, 3, 147.	0.0	0