Kater Murch

List of Publications by Year
in descending order

48 papers	2,888 citations	304701 22 h-index	243610 44 g-index
48 all docs	48 docs citations	48 times ranked	2596 citing authors

#	Article	IF	Citations
1	Vantablack Shielding of Superconducting Qubit Systems. Journal of Low Temperature Physics, 2022, 208, 467-474.	1.4	1
2	Maximal quantum entanglement at exceptional points via unitary and thermal dynamics. Physical Review A, 2022, 105, .	2.5	6
3	Nitrogen plasma passivated niobium resonators for superconducting quantum circuits. Applied Physics Letters, 2022, 120, .	3.3	7
4	Decoherence-Induced Exceptional Points in a Dissipative Superconducting Qubit. Physical Review Letters, 2022, 128, 110402.	7.8	31
5	Topological Quantum State Control through Exceptional-Point Proximity. Physical Review Letters, 2022, 128, 160401.	7.8	27
6	Efficiently fueling a quantum engine with incompatible measurements. Physical Review E, 2022, 105, 044137.	2.1	18
7	Single electrons on solid neon as a solid-state qubit platform. Nature, 2022, 605, 46-50.	27.8	22
8	Observing a topological transition in weak-measurement-induced geometric phases. Physical Review Research, 2022, 4, .	3.6	8
9	Energetic Cost of Measurements Using Quantum, Coherent, and Thermal Light. Physical Review Letters, 2022, 128, .	7.8	4
10	Floquet exceptional contours in Lindblad dynamics with time-periodic drive and dissipation. Physical Review A, 2021, 103, .	2.5	10
11	Weak Measurement of a Superconducting Qubit Reconciles Incompatible Operators. Physical Review Letters, 2021, 126, 100403.	7.8	18
12	Two-Qubit Engine Fueled by Entanglement and Local Measurements. Physical Review Letters, 2021, 126, 120605.	7.8	48
13	Quantum process inference for a single-qubit Maxwell demon. Physical Review A, 2021, 104, .	2.5	2
14	Optical direct write of Dolanâ€"Niemeyer-bridge junctions for transmon qubits. Applied Physics Letters, 2021, 119, .	3.3	3
15	Fabrication and surface treatment of electron-beam evaporated niobium for low-loss coplanar waveguide resonators. Applied Physics Letters, 2021, 119, 132601.	3.3	5
16	Quantum Jumps in the Non-Hermitian Dynamics of a Superconducting Qubit. Physical Review Letters, 2021, 127, 140504.	7.8	43
17	Axion Dark Matter Experiment: Detailed designÂand operations. Review of Scientific Instruments, 2021, 92, 124502.	1.3	18
18	Extended Search for the Invisible Axion with the Axion Dark Matter Experiment. Physical Review Letters, 2020, 124, 101303.	7.8	275

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19	Heat and Work Along Individual Trajectories of a Quantum Bit. Physical Review Letters, 2020, 124, 110604.	7.8	38
20	Integrating superfluids with superconducting qubit systems. Physical Review A, 2020, 101, .	2.5	10
21	Observing Non-Hermitian Evolution of a Single Dissipative Qubit Near an Exceptional Point. , 2020, , .		0
22	Lindblad Exceptional Points in the Dynamics of A Dissipative Superconducting Qubit. , 2020, , .		0
23	Characterizing a Statistical Arrow of Time in Quantum Measurement Dynamics. Physical Review Letters, 2019, 123, 020502.	7.8	14
24	Quantum state tomography across the exceptional point in a single dissipative qubit. Nature Physics, 2019, 15, 1232-1236.	16.7	217
25	Bath engineering of a fluorescing artificial atom with a photonic crystal. Physical Review A, 2019, 99, .	2.5	13
26	Information Gain and Loss for a Quantum Maxwellâ€™s Demon. Physical Review Letters, 2018, 121, 030604.	7.8	96
27	Janus sequences of quantum measurements and the arrow of time. AIP Conference Proceedings, 2017, , .	0.4	0
28	Achieving Optimal Quantum Acceleration of Frequency Estimation Using Adaptive Coherent Control. Physical Review Letters, 2017, 119, 180801.	7.8	29
29	Homodyne monitoring of postselected decay. Physical Review A, 2017, 96, .	2.5	20
30	Quantum Zeno Effects from Measurement Controlled Qubit-Bath Interactions. Physical Review Letters, 2017, 118, 240401.	7.8	42
31	Beyond strong. Nature Physics, 2017, 13, 11-12.	16.7	11
32	Quantum caustics in resonance-fluorescence trajectories. Physical Review A, 2017, 96, .	2.5	21
33	Quantum smoothing for classical mixtures. Physical Review A, 2016, 94, .	2.5	14
34	Correlations of the Time Dependent Signal and the State of a Continuously Monitored Quantum System. Physical Review Letters, 2016, 116, 110401.	7.8	24
35	Mapping quantum state dynamics in spontaneous emission. Nature Communications, 2016, 7, 11527.	12.8	28
36	Prediction and Retrodiction for a Continuously Monitored Superconducting Qubit. Physical Review Letters, 2015, 114, 090403.	7.8	80

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37	Mapping the optimal route between two quantum states. Nature, 2014, 511, 570-573.	27.8	163
38	Observing single quantum trajectories of a superconducting quantum bit. Nature, 2013, 502, 211-214.	27.8	289
39	Reduction of the radiative decay of atomic coherence in squeezed vacuum. Nature, 2013, 499, 62-65.	27.8	108
40	Quantum state sensitivity of an autoresonant superconducting circuit. Physical Review B, 2012, 86, .	3.2	14
41	Stabilizing Rabi oscillations in a superconducting qubit using quantum feedback. Nature, 2012, 490, 77-80.	27.8	377
42	Cavity-Assisted Quantum Bath Engineering. Physical Review Letters, 2012, 109, 183602.	7.8	180
43	Long-time-scale dynamics of spin textures in a degenerate $F=1$ ^{87}Rb spinor Bose gas. Physical Review A, 2011, 84, .	2.8	80
44	Quantum fluctuations in the chirped pendulum. Nature Physics, 2011, 7, 105-108.	16.7	39
45	Single crystal silicon capacitors with low microwave loss in the single photon regime. Applied Physics Letters, 2011, 98, .	3.3	41
46	QUANTUM MICRO-MECHANICS WITH ULTRACOLD ATOMS. , 2009, , .		2
47	Observation of quantum-measurement backaction with an ultracold atomic gas. Nature Physics, 2008, 4, 561-564.	16.7	376
48	Dispersion Management Using Betatron Resonances in an Ultracold-Atom Storage Ring. Physical Review Letters, 2006, 96, 013202.	7.8	16