Kater Murch

List of Publications by Year
in descending order

48 papers	2,888 citations	304743 22 h-index	243625 44 g-index
48 all docs	48 docs citations	48 times ranked	2596 citing authors

#	Article	IF	Citations
1	Stabilizing Rabi oscillations in a superconducting qubit using quantum feedback. Nature, 2012, 490, 77-80.	27.8	377
2	Observation of quantum-measurement backaction with an ultracold atomic gas. Nature Physics, 2008, 4, 561-564.	16.7	376
3	Observing single quantum trajectories of a superconducting quantum bit. Nature, 2013, 502, 211-214.	27.8	289
4	Extended Search for the Invisible Axion with the Axion Dark Matter Experiment. Physical Review Letters, 2020, 124, 101303.	7.8	275
5	Quantum state tomography across the exceptional point in a single dissipative qubit. Nature Physics, 2019, 15, 1232-1236.	16.7	217
6	Cavity-Assisted Quantum Bath Engineering. Physical Review Letters, 2012, 109, 183602.	7.8	180
7	Mapping the optimal route between two quantum states. Nature, 2014, 511, 570-573.	27.8	163
8	Reduction of the radiative decay of atomic coherence in squeezed vacuum. Nature, 2013, 499, 62-65.	27.8	108
9	Information Gain and Loss for a Quantum Maxwellâ€™s Demon. Physical Review Letters, 2018, 121, 030604.	7.8	96
10	Long-time-scale dynamics of spin textures in a degenerate<mml:math xmlns:mml="http://www.w3.org/1998/Math/MathML" display="inline"><mml:mrow><mml:mi>F</mml:mi><mml:mo>=</mml:mo><mml:mn>1</mml:mn></mml:mrow></mml:math><mml:ma xmlns:mml="http://www.w3.org/1998/Math/MathML" display="inline"><mml:msup><mml:mrow /><mml:mn>87</mml:mn></mml:msup></mml:math>Rb spinor Bose gas. Physical Review A, 2011, 84, .	2.5	80
11	Prediction and Retrodiction for a Continuously Monitored Superconducting Qubit. Physical Review Letters, 2015, 114, 090403.	7.8	80
12	Two-Qubit Engine Fueled by Entanglement and Local Measurements. Physical Review Letters, 2021, 126, 120605.	7.8	48
13	Quantum Jumps in the Non-Hermitian Dynamics of a Superconducting Qubit. Physical Review Letters, 2021, 127, 140504.	7.8	43
14	Quantum Zeno Effects from Measurement Controlled Qubit-Bath Interactions. Physical Review Letters, 2017, 118, 240401.	7.8	42
15	Single crystal silicon capacitors with low microwave loss in the single photon regime. Applied Physics Letters, 2011, 98, .	3.3	41
16	Quantum fluctuations in the chirped pendulum. Nature Physics, 2011, 7, 105-108.	16.7	39
17	Heat and Work Along Individual Trajectories of a Quantum Bit. Physical Review Letters, 2020, 124, 110604.	7.8	38
18	Decoherence-Induced Exceptional Points in a Dissipative Superconducting Qubit. Physical Review Letters, 2022, 128, 110402.	7.8	31

#	Article	IF	Citations
19	Achieving Optimal Quantum Acceleration of Frequency Estimation Using Adaptive Coherent Control. Physical Review Letters, 2017, 119, 180801.	7.8	29
20	Mapping quantum state dynamics in spontaneous emission. Nature Communications, 2016, 7, 11527.	12.8	28
21	Topological Quantum State Control through Exceptional-Point Proximity. Physical Review Letters, 2022, 128, 160401.	7.8	27
22	Correlations of the Time Dependent Signal and the State of a Continuously Monitored Quantum System. Physical Review Letters, 2016, 116, 110401.	7.8	24
23	Single electrons on solid neon as a solid-state qubit platform. Nature, 2022, 605, 46-50.	27.8	22
24	Quantum caustics in resonance-fluorescence trajectories. Physical Review A, 2017, 96, .	2.5	21
25	Homodyne monitoring of postselected decay. Physical Review A, 2017, 96, .	2.5	20
26	Weak Measurement of a Superconducting Qubit Reconciles Incompatible Operators. Physical Review Letters, 2021, 126, 100403.	7.8	18
27	Axion Dark Matter Experiment: Detailed designÂand operations. Review of Scientific Instruments, 2021, 92, 124502.	1.3	18
28	Efficiently fueling a quantum engine with incompatible measurements. Physical Review E, 2022, 105, 044137.	2.1	18
29	Dispersion Management Using Betatron Resonances in an Ultracold-Atom Storage Ring. Physical Review Letters, 2006, 96, 013202.	7.8	16
30	Quantum state sensitivity of an autoresonant superconducting circuit. Physical Review B, 2012, 86, .	3.2	14
31	Quantum smoothing for classical mixtures. Physical Review A, 2016, 94, .	2.5	14
32	Characterizing a Statistical Arrow of Time in Quantum Measurement Dynamics. Physical Review Letters, 2019, 123, 020502.	7.8	14
33	Bath engineering of a fluorescing artificial atom with a photonic crystal. Physical Review A, 2019, 99, .	2.5	13
34	Beyond strong. Nature Physics, 2017, 13, 11-12.	16.7	11
35	Integrating superfluids with superconducting qubit systems. Physical Review A, 2020, 101, .	2.5	10
36	Floquet exceptional contours in Lindblad dynamics with time-periodic drive and dissipation. Physical Review A, 2021, 103, .	2.5	10

#	Article	IF	Citations
37	Observing a topological transition in weak-measurement-induced geometric phases. Physical Review Research, 2022, 4, .	3.6	8
38	Nitrogen plasma passivated niobium resonators for superconducting quantum circuits. Applied Physics Letters, 2022, 120, .	3.3	7
39	Maximal quantum entanglement at exceptional points via unitary and thermal dynamics. Physical Review A, 2022, 105, .	2.5	6
40	Fabrication and surface treatment of electron-beam evaporated niobium for low-loss coplanar waveguide resonators. Applied Physics Letters, 2021, 119, 132601.	3.3	5
41	Energetic Cost of Measurements Using Quantum, Coherent, and Thermal Light. Physical Review Letters, 2022, 128, .	7.8	4
42	Optical direct write of Dolanâ€“Niemeyer-bridge junctions for transmon qubits. Applied Physics Letters, 2021, 119, .	3.3	3
43	Quantum process inference for a single-qubit Maxwell demon. Physical Review A, 2021, 104, .	2.5	2
44	QUANTUM MICRO-MECHANICS WITH ULTRACOLD ATOMS. , 2009, , .		2
45	Vantablack Shielding of Superconducting Qubit Systems. Journal of Low Temperature Physics, 2022, 208, 467-474.	1.4	1
46	Janus sequences of quantum measurements and the arrow of time. AIP Conference Proceedings, 2017, , .	0.4	0
47	Observing Non-Hermitian Evolution of a Single Dissipative Qubit Near an Exceptional Point. , 2020, , .		0
48	Lindblad Exceptional Points in the Dynamics of A Dissipative Superconducting Qubit. , 2020, , .		0