Julian Kelly

List of Publications by Year in descending order

35 papers	10,197 citations	136885 32 h-index	360920 35 g-index
35 all docs	35 docs citations	35 times ranked	7060 citing authors

#	Article	IF	Citations
1	Quantum supremacy using a programmable superconducting processor. Nature, 2019, 574, 505-510.	13.7	4,148
2	Superconducting quantum circuits at the surface code threshold for fault tolerance. Nature, 2014, 508, 500-503.	13.7	1,270
3	State preservation by repetitive error detection in a superconducting quantum circuit. Nature, 2015, 519, 66-69.	13.7	682
4	Qubit Architecture with High Coherence and Fast Tunable Coupling. Physical Review Letters, 2014, 113, 220502.	2.9	387
5	Planar superconducting resonators with internal quality factors above one million. Applied Physics Letters, 2012, 100, .	1.5	341
6	Spectroscopic signatures of localization with interacting photons in superconducting qubits. Science, 2017, 358, 1175-1179.	6.0	315
7	Fast Accurate State Measurement with Superconducting Qubits. Physical Review Letters, 2014, 112, 190504.	2.9	273
8	Digital quantum simulation of fermionic models with a superconducting circuit. Nature Communications, 2015, 6, 7654.	5.8	258
9	Computing prime factors with a Josephson phase qubit quantum processor. Nature Physics, 2012, 8, 719-723.	6.5	238
10	Minimizing quasiparticle generation from stray infrared light in superconducting quantum circuits. Applied Physics Letters, 2011, 99, .	1.5	184
11	Exponential suppression of bit or phase errors with cyclic error correction. Nature, 2021, 595, 383-387.	13.7	172
12	Observation of topological transitions in interacting quantum circuits. Nature, 2014, 515, 241-244.	13.7	162
13	Optimal Quantum Control Using Randomized Benchmarking. Physical Review Letters, 2014, 112, 240504.	2.9	160
14	Demonstrating a Continuous Set of Two-qubit Gates for Near-term Quantum Algorithms. Physical Review Letters, 2020, 125, 120504.	2.9	146
15	Time-crystalline eigenstate order on a quantum processor. Nature, 2022, 601, 531-536.	13.7	138
16	Surface loss simulations of superconducting coplanar waveguide resonators. Applied Physics Letters, 2011, 99, .	1.5	130
17	Information scrambling in quantum circuits. Science, 2021, 374, 1479-1483.	6.0	127
18	Qubit compatible superconducting interconnects. Quantum Science and Technology, 2018, 3, 014005.	2.6	95

#	Article	IF	Citations
19	Quantum process tomography of two-qubit controlled-Z and controlled-NOT gates using superconducting phase qubits. Physical Review B, 2010, 82, .	1.1	93
20	Catching Time-Reversed Microwave Coherent State Photons with 99.4% Absorption Efficiency. Physical Review Letters, 2014, 112, .	2.9	92
21	Fabrication and characterization of aluminum airbridges for superconducting microwave circuits. Applied Physics Letters, 2014, 104, .	1.5	89
22	Characterization and reduction of microfabrication-induced decoherence in superconducting quantum circuits. Applied Physics Letters, 2014, 105, .	1.5	85
23	Design and characterization of a lumped element single-ended superconducting microwave parametric amplifier with on-chip flux bias line. Applied Physics Letters, 2013, 103, .	1.5	73
24	Multiplexed dispersive readout of superconducting phase qubits. Applied Physics Letters, 2012, 101, .	1.5	67
25	Qubit Metrology of Ultralow Phase Noise Using Randomized Benchmarking. Physical Review Applied, 2015, 3, .	1.5	66
26	Resolving catastrophic error bursts from cosmic rays in large arrays of superconducting qubits. Nature Physics, 2022, 18, 107-111.	6.5	56
27	Removing leakage-induced correlated errors in superconducting quantum error correction. Nature Communications, 2021, 12, 1761.	5.8	49
28	Excitation of Superconducting Qubits from Hot Nonequilibrium Quasiparticles. Physical Review Letters, 2013, 110, 150502.	2.9	48
29	Accurately computing the electronic properties of a quantum ring. Nature, 2021, 594, 508-512.	13.7	47
30	Compressed sensing quantum process tomography for superconducting quantum gates. Physical Review B, 2014, 90, .	1.1	45
31	Fluctuations from edge defects in superconducting resonators. Applied Physics Letters, 2013, 103, .	1.5	44
32	Preserving entanglement during weak measurement demonstrated with a violation of the Bellâ€“Leggettâ€“Garg inequality. Npj Quantum Information, 2016, 2, .	2.8	41
33	Emulating weak localization using a solid-state quantum circuit. Nature Communications, 2014, 5, 5184.	5.8	30
34	Rolling quantum dice with a superconducting qubit. Physical Review A, 2014, 90, .	1.0	27
35	High fidelity qubit readout with the superconducting low-inductance undulatory galvanometer microwave amplifier. Applied Physics Letters, 2014, 104, .	1.5	19