

# Julian Kelly

## List of Publications by Citations

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**Version:** 2024-04-26

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The third column is the impact factor (IF) of the journal, and the fourth column is the number of citations of the article.

35  
papers

5,854  
citations

27  
h-index

35  
g-index

35  
ext. papers

8,184  
ext. citations

16.6  
avg, IF

4.47  
L-index

#	Paper	IF	Citations
35	Quantum supremacy using a programmable superconducting processor. <i>Nature</i> , <b>2019</b> , 574, 505-510	50.4	1760
34	Superconducting quantum circuits at the surface code threshold for fault tolerance. <i>Nature</i> , <b>2014</b> , 508, 500-3	50.4	961
33	State preservation by repetitive error detection in a superconducting quantum circuit. <i>Nature</i> , <b>2015</b> , 519, 66-9	50.4	542
32	Qubit Architecture with High Coherence and Fast Tunable Coupling. <i>Physical Review Letters</i> , <b>2014</b> , 113, 220502	7.4	279
31	Planar superconducting resonators with internal quality factors above one million. <i>Applied Physics Letters</i> , <b>2012</b> , 100, 113510	3.4	264
30	Fast accurate state measurement with superconducting qubits. <i>Physical Review Letters</i> , <b>2014</b> , 112, 190504	7.4	200
29	Computing prime factors with a Josephson phase qubit quantum processor. <i>Nature Physics</i> , <b>2012</b> , 8, 719-723	17.4	194
28	Digital quantum simulation of fermionic models with a superconducting circuit. <i>Nature Communications</i> , <b>2015</b> , 6, 7654	17.4	191
27	Spectroscopic signatures of localization with interacting photons in superconducting qubits. <i>Science</i> , <b>2017</b> , 358, 1175-1179	33.3	184
26	Minimizing quasiparticle generation from stray infrared light in superconducting quantum circuits. <i>Applied Physics Letters</i> , <b>2011</b> , 99, 113507	3.4	147
25	Observation of topological transitions in interacting quantum circuits. <i>Nature</i> , <b>2014</b> , 515, 241-4	50.4	120
24	Optimal quantum control using randomized benchmarking. <i>Physical Review Letters</i> , <b>2014</b> , 112, 240504	7.4	118
23	Surface loss simulations of superconducting coplanar waveguide resonators. <i>Applied Physics Letters</i> , <b>2011</b> , 99, 113513	3.4	95
22	Quantum process tomography of two-qubit controlled-Z and controlled-NOT gates using superconducting phase qubits. <i>Physical Review B</i> , <b>2010</b> , 82,	3.3	76
21	Catching Time-Reversed Microwave Coherent State Photons with 99.4% Absorption Efficiency. <i>Physical Review Letters</i> , <b>2014</b> , 112,	7.4	70
20	Characterization and reduction of microfabrication-induced decoherence in superconducting quantum circuits. <i>Applied Physics Letters</i> , <b>2014</b> , 105, 062601	3.4	68
19	Fabrication and characterization of aluminum airbridges for superconducting microwave circuits. <i>Applied Physics Letters</i> , <b>2014</b> , 104, 052602	3.4	60

18	Demonstrating a Continuous Set of Two-Qubit Gates for Near-Term Quantum Algorithms. <i>Physical Review Letters</i> , <b>2020</b> , 125, 120504	7.4	59
17	Design and characterization of a lumped element single-ended superconducting microwave parametric amplifier with on-chip flux bias line. <i>Applied Physics Letters</i> , <b>2013</b> , 103, 122602	3.4	57
16	Multiplexed dispersive readout of superconducting phase qubits. <i>Applied Physics Letters</i> , <b>2012</b> , 101, 182601	5.4	53
15	Qubit compatible superconducting interconnects. <i>Quantum Science and Technology</i> , <b>2018</b> , 3, 014005	5.5	49
14	Qubit Metrology of Ultralow Phase Noise Using Randomized Benchmarking. <i>Physical Review Applied</i> , <b>2015</b> , 3,	4.3	39
13	Excitation of superconducting qubits from hot nonequilibrium quasiparticles. <i>Physical Review Letters</i> , <b>2013</b> , 110, 150502	7.4	37
12	Fluctuations from edge defects in superconducting resonators. <i>Applied Physics Letters</i> , <b>2013</b> , 103, 072603	3.4	34
11	Preserving entanglement during weak measurement demonstrated with a violation of the Bell-inequality. <i>Npj Quantum Information</i> , <b>2016</b> , 2,	8.6	30
10	Compressed sensing quantum process tomography for superconducting quantum gates. <i>Physical Review B</i> , <b>2014</b> , 90,	3.3	29
9	Exponential suppression of bit or phase errors with cyclic error correction. <i>Nature</i> , <b>2021</b> , 595, 383-387	50.4	28
8	Emulating weak localization using a solid-state quantum circuit. <i>Nature Communications</i> , <b>2014</b> , 5, 5184	17.4	27
7	Rolling quantum dice with a superconducting qubit. <i>Physical Review A</i> , <b>2014</b> , 90,	2.6	20
6	High fidelity qubit readout with the superconducting low-inductance undulatory galvanometer microwave amplifier. <i>Applied Physics Letters</i> , <b>2014</b> , 104, 152601	3.4	18
5	Information scrambling in quantum circuits. <i>Science</i> , <b>2021</b> , eabg5029	33.3	13
4	Removing leakage-induced correlated errors in superconducting quantum error correction. <i>Nature Communications</i> , <b>2021</b> , 12, 1761	17.4	13
3	Time-Crystalline Eigenstate Order on a Quantum Processor. <i>Nature</i> , <b>2021</b> ,	50.4	8
2	Resolving catastrophic error bursts from cosmic rays in large arrays of superconducting qubits. <i>Nature Physics</i> , <b>2022</b> , 18, 107-111	16.2	7
1	Accurately computing the electronic properties of a quantum ring. <i>Nature</i> , <b>2021</b> , 594, 508-512	50.4	4

