

Andrew Cleland

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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.

73 papers	10,723 citations	44 h-index	76 g-index
76 ext. papers	12,713 ext. citations	12.9 avg, IF	5.76 L-index

#	Paper	IF	Citations
73	Quantum ground state and single-phonon control of a mechanical resonator. <i>Nature</i> , 2010 , 464, 697-703	50.4	1368
72	Surface codes: Towards practical large-scale quantum computation. <i>Physical Review A</i> , 2012 , 86,	2.6	968
71	Superconducting quantum circuits at the surface code threshold for fault tolerance. <i>Nature</i> , 2014 , 508, 500-3	50.4	961
70	Synthesizing arbitrary quantum states in a superconducting resonator. <i>Nature</i> , 2009 , 459, 546-9	50.4	617
69	State preservation by repetitive error detection in a superconducting quantum circuit. <i>Nature</i> , 2015 , 519, 66-9	50.4	542
68	Coherent Josephson qubit suitable for scalable quantum integrated circuits. <i>Physical Review Letters</i> , 2013 , 111, 080502	7.4	401
67	Nanomechanical coupling between microwave and optical photons. <i>Nature Physics</i> , 2013 , 9, 712-716	16.2	394
66	Measurement of the entanglement of two superconducting qubits via state tomography. <i>Science</i> , 2006 , 313, 1423-5	33.3	366
65	Generation of three-qubit entangled states using superconducting phase qubits. <i>Nature</i> , 2010 , 467, 570-3	50.4	293
64	Violation of Bell's inequality in Josephson phase qubits. <i>Nature</i> , 2009 , 461, 504-6	50.4	290
63	Qubit Architecture with High Coherence and Fast Tunable Coupling. <i>Physical Review Letters</i> , 2014 , 113, 220502	7.4	279
62	Planar superconducting resonators with internal quality factors above one million. <i>Applied Physics Letters</i> , 2012 , 100, 113510	3.4	264
61	Fast accurate state measurement with superconducting qubits. <i>Physical Review Letters</i> , 2014 , 112, 190504	7.4	200
60	Computing prime factors with a Josephson phase qubit quantum processor. <i>Nature Physics</i> , 2012 , 8, 719-723	16.2	194
59	Process tomography of quantum memory in a Josephson-phase qubit coupled to a two-level state. <i>Nature Physics</i> , 2008 , 4, 523-526	16.2	192
58	Superconducting qubit storage and entanglement with nanomechanical resonators. <i>Physical Review Letters</i> , 2004 , 93, 070501	7.4	187
57	Microwave dielectric loss at single photon energies and millikelvin temperatures. <i>Applied Physics Letters</i> , 2008 , 92, 112903	3.4	183

56	A high-throughput label-free nanoparticle analyser. <i>Nature Nanotechnology</i> , 2011 , 6, 308-13	28.7	154
55	State tomography of capacitively shunted phase qubits with high fidelity. <i>Physical Review Letters</i> , 2006 , 97, 050502	7.4	154
54	Minimizing quasiparticle generation from stray infrared light in superconducting quantum circuits. <i>Applied Physics Letters</i> , 2011 , 99, 113507	3.4	147
53	Quantum control of surface acoustic-wave phonons. <i>Nature</i> , 2018 , 563, 661-665	50.4	142
52	Quantum process tomography of a universal entangling gate implemented with Josephson phase qubits. <i>Nature Physics</i> , 2010 , 6, 409-413	16.2	137
51	Catch and release of microwave photon states. <i>Physical Review Letters</i> , 2013 , 110, 107001	7.4	125
50	Improving the coherence time of superconducting coplanar resonators. <i>Applied Physics Letters</i> , 2009 , 95, 233508	3.4	121
49	Observation of topological transitions in interacting quantum circuits. <i>Nature</i> , 2014 , 515, 241-4	50.4	120
48	Optimal quantum control using randomized benchmarking. <i>Physical Review Letters</i> , 2014 , 112, 240504	7.4	118
47	The 2019 surface acoustic waves roadmap. <i>Journal Physics D: Applied Physics</i> , 2019 , 52, 353001	3	112
46	SpinPhonon interactions in silicon carbide addressed by Gaussian acoustics. <i>Nature Physics</i> , 2019 , 15, 490-495	16.2	109
45	Photon shell game in three-resonator circuit quantum electrodynamics. <i>Nature Physics</i> , 2011 , 7, 287-293	16.2	103
44	Surface loss simulations of superconducting coplanar waveguide resonators. <i>Applied Physics Letters</i> , 2011 , 99, 113513	3.4	95
43	Strong environmental coupling in a Josephson parametric amplifier. <i>Applied Physics Letters</i> , 2014 , 104, 263513	3.4	93
42	Phonon-mediated quantum state transfer and remote qubit entanglement. <i>Science</i> , 2019 , 364, 368-371	33.3	88
41	Bi-directional conversion between microwave and optical frequencies in a piezoelectric optomechanical device. <i>Applied Physics Letters</i> , 2016 , 109, 033107	3.4	81
40	Quantum process tomography of two-qubit controlled-Z and controlled-NOT gates using superconducting phase qubits. <i>Physical Review B</i> , 2010 , 82,	3.3	76
39	Catching Time-Reversed Microwave Coherent State Photons with 99.4% Absorption Efficiency. <i>Physical Review Letters</i> , 2014 , 112,	7.4	70

38	Characterization and reduction of microfabrication-induced decoherence in superconducting quantum circuits. <i>Applied Physics Letters</i> , 2014 , 105, 062601	3.4	68
37	Measurement of energy decay in superconducting qubits from nonequilibrium quasiparticles. <i>Physical Review B</i> , 2011 , 84,	3.3	67
36	Fabrication and characterization of aluminum airbridges for superconducting microwave circuits. <i>Applied Physics Letters</i> , 2014 , 104, 052602	3.4	60
35	Nanoscale radio-frequency thermometry. <i>Applied Physics Letters</i> , 2003 , 83, 1002-1004	3.4	58
34	Design and characterization of a lumped element single-ended superconducting microwave parametric amplifier with on-chip flux bias line. <i>Applied Physics Letters</i> , 2013 , 103, 122602	3.4	57
33	Superconducting phase qubit coupled to a nanomechanical resonator: Beyond the rotating-wave approximation. <i>Physical Review A</i> , 2004 , 70,	2.6	54
32	Multiplexed dispersive readout of superconducting phase qubits. <i>Applied Physics Letters</i> , 2012 , 101, 182601	3.4	53
31	Superconducting qubits coupled to nanoelectromechanical resonators: An architecture for solid-state quantum-information processing. <i>Physical Review A</i> , 2005 , 71,	2.6	50
30	Quantum state characterization of a fast tunable superconducting resonator. <i>Applied Physics Letters</i> , 2013 , 102, 163503	3.4	47
29	Single-electron transistor as a radio-frequency mixer. <i>Applied Physics Letters</i> , 2002 , 81, 532-534	3.4	43
28	Qubit Metrology of Ultralow Phase Noise Using Randomized Benchmarking. <i>Physical Review Applied</i> , 2015 , 3,	4.3	39
27	Decoherence dynamics of complex photon states in a superconducting circuit. <i>Physical Review Letters</i> , 2009 , 103, 200404	7.4	39
26	Excitation of superconducting qubits from hot nonequilibrium quasiparticles. <i>Physical Review Letters</i> , 2013 , 110, 150502	7.4	37
25	Fluctuations from edge defects in superconducting resonators. <i>Applied Physics Letters</i> , 2013 , 103, 072603	3.4	34
24	Emulating weak localization using a solid-state quantum circuit. <i>Nature Communications</i> , 2014 , 5, 5184	17.4	27
23	Hot electrons in low-dimensional phonon systems. <i>Physical Review B</i> , 2005 , 72,	3.3	24
22	Deterministic bidirectional communication and remote entanglement generation between superconducting qubits. <i>Npj Quantum Information</i> , 2019 , 5,	8.6	24
21	Violating Bell's inequality with remotely connected superconducting qubits. <i>Nature Physics</i> , 2019 , 15, 741-744	16.2	23

20	Quantum Delayed-Choice Experiment with a Beam Splitter in a Quantum Superposition. <i>Physical Review Letters</i> , 2015 , 115, 260403	7.4	23
19	Rolling quantum dice with a superconducting qubit. <i>Physical Review A</i> , 2014 , 90,	2.6	20
18	Reducing the impact of intrinsic dissipation in a superconducting circuit by quantum error detection. <i>Nature Communications</i> , 2014 , 5, 3135	17.4	19
17	Deterministic multi-qubit entanglement in a quantum network. <i>Nature</i> , 2021 , 590, 571-575	50.4	15
16	Quantum Erasure Using Entangled Surface Acoustic Phonons. <i>Physical Review X</i> , 2020 , 10,	9.1	10
15	A simple microfluidic aggregation analyzer for the specific, sensitive and multiplexed quantification of proteins in a serum environment. <i>Biosensors and Bioelectronics</i> , 2016 , 77, 1062-9	11.8	10
14	Dynamic quantum Kerr effect in circuit quantum electrodynamics. <i>Physical Review A</i> , 2012 , 85,	2.6	10
13	Remote Entanglement via Adiabatic Passage Using a Tunably Dissipative Quantum Communication System. <i>Physical Review Letters</i> , 2020 , 124, 240502	7.4	8
12	Input-output theory for superconducting and photonic circuits that contain weak retroreflections and other weak pseudocavities. <i>Physical Review A</i> , 2018 , 98,	2.6	8
11	Simple non-galvanic flip-chip integration method for hybrid quantum systems. <i>Applied Physics Letters</i> , 2019 , 114, 173501	3.4	5
10	Flux-pumped impedance-engineered broadband Josephson parametric amplifier. <i>Applied Physics Letters</i> , 2021 , 118, 142601	3.4	5
9	Proposal for a Nanomechanical Qubit. <i>Physical Review X</i> , 2021 , 11,	9.1	5
8	Continuous and Time-Domain Coherent Signal Conversion between Optical and Microwave Frequencies. <i>Physical Review Applied</i> , 2020 , 14,	4.3	4
7	Unidirectional distributed acoustic reflection transducers for quantum applications. <i>Applied Physics Letters</i> , 2019 , 114, 223501	3.4	3
6	Mechanical quantum resonators. <i>AIP Conference Proceedings</i> , 2005 ,	0	2
5	Superconducting qubits in a flip-chip architecture. <i>Applied Physics Letters</i> , 2021 , 118, 232602	3.4	2
4	Measurements of a quantum bulk acoustic resonator using a superconducting qubit. <i>Applied Physics Letters</i> , 2020 , 117, 254001	3.4	1
3	Entanglement Purification and Protection in a Superconducting Quantum Network.. <i>Physical Review Letters</i> , 2022 , 128, 080504	7.4	1

2 A fast and large bandwidth superconducting variable coupler. *Applied Physics Letters*, **2020**, 117, 244001^{3,4} o

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