Daniel Sank

List of Publications by Year
in descending order

40 papers	10,507 citations	117453 34 h-index	288905 40 g-index
40 all docs	40 docs citations	40 times ranked	7039 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	A blueprint for demonstrating quantum supremacy with superconducting qubits. Science, 2018, 360, 195-199.	6.0	307
7	Fast Accurate State Measurement with Superconducting Qubits. Physical Review Letters, 2014, 112, 190504.	2.9	273
8	Computing prime factors with a Josephson phase qubit quantum processor. Nature Physics, 2012, 8, 719-723.	6.5	238
9	Quantum process tomography of a universal entangling gate implemented with Josephson phase qubits. Nature Physics, 2010, 6, 409-413.	6.5	186
10	Realizing topologically ordered states on a quantum processor. Science, 2021, 374, 1237-1241.	6.0	186
11	Minimizing quasiparticle generation from stray infrared light in superconducting quantum circuits. Applied Physics Letters, 2011, 99, .	1.5	184
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	Improving the coherence time of superconducting coplanar resonators. Applied Physics Letters, 2009, 95, .	1.5	145
16	Time-crystalline eigenstate order on a quantum processor. Nature, 2022, 601, 531-536.	13.7	138
17	Surface loss simulations of superconducting coplanar waveguide resonators. Applied Physics Letters, 2011, 99, .	1.5	130
18	Information scrambling in quantum circuits. Science, 2021, 374, 1479-1483.	6.0	127

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19	Photon shell game in three-resonator circuit quantum electrodynamics. Nature Physics, 2011, 7, 287-293.	6.5	114
20	Design and Characterization of a 28-nm Bulk-CMOS Cryogenic Quantum Controller Dissipating Less Than 2 mW at 3 K. IEEE Journal of Solid-State Circuits, 2019, 54, 3043-3060.	3.5	100
21	Quantum process tomography of two-qubit controlled-Z and controlled-NOT gates using superconducting phase qubits. Physical Review B, 2010, 82, .	1.1	93
22	Catching Time-Reversed Microwave Coherent State Photons with 99.4% Absorption Efficiency. Physical Review Letters, 2014, 112, .	2.9	92
23	Fabrication and characterization of aluminum airbridges for superconducting microwave circuits. Applied Physics Letters, 2014, 104, .	1.5	89
24	Characterization and reduction of microfabrication-induced decoherence in superconducting quantum circuits. Applied Physics Letters, 2014, 105, .	1.5	85
25	Measurement of energy decay in superconducting qubits from nonequilibrium quasiparticles. Physical Review B, 2011, 84, .	1.1	81
26	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
27	Diabatic Gates for Frequency-Tunable Superconducting Qubits. Physical Review Letters, 2019, 123, 210501.	2.9	73
28	Multiplexed dispersive readout of superconducting phase qubits. Applied Physics Letters, 2012, 101, .	1.5	67
29	Qubit Metrology of Ultralow Phase Noise Using Randomized Benchmarking. Physical Review Applied, 2015, 3, .	1.5	66
30	Flux Noise Probed with Real Time Qubit Tomography in a Josephson Phase Qubit. Physical Review Letters, 2012, 109, 067001.	2.9	49
31	Excitation of Superconducting Qubits from Hot Nonequilibrium Quasiparticles. Physical Review Letters, 2013, 110, 150502.	2.9	48
32	Compressed sensing quantum process tomography for superconducting quantum gates. Physical Review B, 2014, 90, .	1.1	45
33	Fluctuations from edge defects in superconducting resonators. Applied Physics Letters, 2013, 103, .	1.5	44
34	Preserving entanglement during weak measurement demonstrated with a violation of the Bellâ€“Leggettâ€“Garg inequality. Npj Quantum Information, 2016, 2, .	2.8	41
35	Quantum Computing: An Introduction for Microwave Engineers. IEEE Microwave Magazine, 2020, 21, 24-44.	0.7	35
36	Emulating weak localization using a solid-state quantum circuit. Nature Communications, 2014, 5, 5184.	5.8	30

#	Article	IF	Citations
37	Rolling quantum dice with a superconducting qubit. Physical Review A, 2014, 90, .	1.0	27
38	High fidelity qubit readout with the superconducting low-inductance undulatory galvanometer microwave amplifier. Applied Physics Letters, 2014, 104, .	1.5	19
39	Dynamic quantum Kerr effect in circuit quantum electrodynamics. Physical Review A, 2012, 85, .	1.0	13
40	High speed flux sampling for tunable superconducting qubits with an embedded cryogenic transducer. Superconductor Science and Technology, 2019, 32, 015012.	1.8	13