James Wenner

List of Publications by Year in Descending Order

64 papers	10,199 citations	48 h-index	64 g-index
64 ext. papers	12,063 ext. citations	13.2 avg, IF	5.16 L-index

#	Paper	IF	Citations
64	High speed flux sampling for tunable superconducting qubits with an embedded cryogenic transducer. *Superconductor Science and Technology*, **2019**, 32, 015012	3.1	10
63	Qubit compatible superconducting interconnects. *Quantum Science and Technology*, **2018**, 3, 014005	5.5	49
62	A blueprint for demonstrating quantum supremacy with superconducting qubits. *Science*, **2018**, 360, 195-199	33.3	205
61	A method for building low loss multi-layer wiring for superconducting microwave devices. *Applied Physics Letters*, **2018**, 112, 063502	3.4	27
60	Fluctuations of Energy-Relaxation Times in Superconducting Qubits. *Physical Review Letters*, **2018**, 121, 090502	7.4	95
59	Observation of Classical-Quantum Crossover of 1/f Flux Noise and Its Paramagnetic Temperature Dependence. *Physical Review Letters*, **2017**, 118, 057702	7.4	56
58	Spectroscopic signatures of localization with interacting photons in superconducting qubits. *Science*, **2017**, 358, 1175-1179	33.3	184
57	Chiral ground-state currents of interacting photons in a synthetic magnetic field. *Nature Physics*, **2017**, 13, 146-151	16.2	189
56	Characterization and reduction of capacitive loss induced by sub-micron Josephson junction fabrication in superconducting qubits. *Applied Physics Letters*, **2017**, 111, 022601	3.4	52
55	Dielectric surface loss in superconducting resonators with flux-trapping holes. *Superconductor Science and Technology*, **2016**, 29, 104006	3.1	14
54	Measuring and Suppressing Quantum State Leakage in a Superconducting Qubit. *Physical Review Letters*, **2016**, 116, 020501	7.4	93
53	Scalable Quantum Simulation of Molecular Energies. *Physical Review X*, **2016**, 6,	9.1	355
52	Scalable in situ qubit calibration during repetitive error detection. *Physical Review A*, **2016**, 94,	2.6	21
51	Preserving entanglement during weak measurement demonstrated with a violation of the Bell□eggett□arg inequality. *Npj Quantum Information*, **2016**, 2,	8.6	30
50	Measurement-Induced State Transitions in a Superconducting Qubit: Beyond the Rotating Wave Approximation. *Physical Review Letters*, **2016**, 117, 190503	7.4	59
49	Digitized adiabatic quantum computing with a superconducting circuit. *Nature*, **2016**, 534, 222-6	50.4	239
48	Ergodic dynamics and thermalization in an isolated quantum system. *Nature Physics*, **2016**, 12, 1037-1041	16.2	154

47	State preservation by repetitive error detection in a superconducting quantum circuit. *Nature*, **2015**, 519, 66-9	50.4	542
46	Digital quantum simulation of fermionic models with a superconducting circuit. *Nature Communications*, **2015**, 6, 7654	17.4	191
45	Qubit Metrology of Ultralow Phase Noise Using Randomized Benchmarking. *Physical Review Applied*, **2015**, 3,	4.3	39
44	Traveling wave parametric amplifier with Josephson junctions using minimal resonator phase matching. *Applied Physics Letters*, **2015**, 106, 242601	3.4	84
43	Superconducting quantum circuits at the surface code threshold for fault tolerance. *Nature*, **2014**, 508, 500-3	50.4	961
42	Room temperature deposition of sputtered TiN films for superconducting coplanar waveguide resonators. *Superconductor Science and Technology*, **2014**, 27, 015009	3.1	51
41	Observation of topological transitions in interacting quantum circuits. *Nature*, **2014**, 515, 241-4	50.4	120
40	Emulating weak localization using a solid-state quantum circuit. *Nature Communications*, **2014**, 5, 5184	17.4	27
39	Fast accurate state measurement with superconducting qubits. *Physical Review Letters*, **2014**, 112, 190504	7.4	200
38	Optimal quantum control using randomized benchmarking. *Physical Review Letters*, **2014**, 112, 240504	7.4	118
37	Strong environmental coupling in a Josephson parametric amplifier. *Applied Physics Letters*, **2014**, 104, 263513	3.4	93
36	Rolling quantum dice with a superconducting qubit. *Physical Review A*, **2014**, 90,	2.6	20
35	Catching Time-Reversed Microwave Coherent State Photons with 99.4% Absorption Efficiency. *Physical Review Letters*, **2014**, 112,	7.4	70
34	Qubit Architecture with High Coherence and Fast Tunable Coupling. *Physical Review Letters*, **2014**, 113, 220502	7.4	279
33	Characterization and reduction of microfabrication-induced decoherence in superconducting quantum circuits. *Applied Physics Letters*, **2014**, 105, 062601	3.4	68
32	Compressed sensing quantum process tomography for superconducting quantum gates. *Physical Review B*, **2014**, 90,	3.3	29
31	Fabrication and characterization of aluminum airbridges for superconducting microwave circuits. *Applied Physics Letters*, **2014**, 104, 052602	3.4	60
30	Coherent Josephson qubit suitable for scalable quantum integrated circuits. *Physical Review Letters*, **2013**, 111, 080502	7.4	401

29	Catch and release of microwave photon states. *Physical Review Letters*, **2013**, 110, 107001	7.4	125
28	Design and characterization of a lumped element single-ended superconducting microwave parametric amplifier with on-chip flux bias line. *Applied Physics Letters*, **2013**, 103, 122602	3.4	57
27	Fluctuations from edge defects in superconducting resonators. *Applied Physics Letters*, **2013**, 103, 072601	3.4	34
26	Excitation of superconducting qubits from hot nonequilibrium quasiparticles. *Physical Review Letters*, **2013**, 110, 150502	7.4	37
25	Planar superconducting resonators with internal quality factors above one million. *Applied Physics Letters*, **2012**, 100, 113510	3.4	264
24	Computing prime factors with a Josephson phase qubit quantum processor. *Nature Physics*, **2012**, 8, 719-723	16.2	194
23	Multiplexed dispersive readout of superconducting phase qubits. *Applied Physics Letters*, **2012**, 101, 182601	3.4	53
22	Flux noise probed with real time qubit tomography in a Josephson phase qubit. *Physical Review Letters*, **2012**, 109, 067001	7.4	44
21	Dynamic quantum Kerr effect in circuit quantum electrodynamics. *Physical Review A*, **2012**, 85,	2.6	10
20	Deterministic entanglement of photons in two superconducting microwave resonators. *Physical Review Letters*, **2011**, 106, 060401	7.4	145
19	Photon shell game in three-resonator circuit quantum electrodynamics. *Nature Physics*, **2011**, 7, 287-293	16.2	103
18	Surface loss simulations of superconducting coplanar waveguide resonators. *Applied Physics Letters* , **2011**, 99, 113513	3.4	95
17	Measurement of energy decay in superconducting qubits from nonequilibrium quasiparticles. *Physical Review B*, **2011**, 84,	3.3	67
16	Minimizing quasiparticle generation from stray infrared light in superconducting quantum circuits. *Applied Physics Letters*, **2011**, 99, 113507	3.4	147
15	Fast tunable coupler for superconducting qubits. *Physical Review Letters*, **2011**, 106, 060501	7.4	84
14	Implementing the quantum von Neumann architecture with superconducting circuits. *Science*, **2011** , 334, 61-5	33.3	214
13	Wirebond crosstalk and cavity modes in large chip mounts for superconducting qubits. *Superconductor Science and Technology*, **2011**, 24, 065001	3.1	34
12	Phase qubits fabricated with trilayer junctions. *Superconductor Science and Technology*, **2011**, 24, 055005	3.1	15

List of Publications

11	Quantum ground state and single-phonon control of a mechanical resonator. *Nature*, **2010**, 464, 697-703	50.4	1368
10	Generation of three-qubit entangled states using superconducting phase qubits. *Nature*, **2010**, 467, 570-3	50.4	293
9	Quantum process tomography of a universal entangling gate implemented with Josephson phase qubits. *Nature Physics*, **2010**, 6, 409-413	16.2	137
8	Quantum process tomography of two-qubit controlled-Z and controlled-NOT gates using superconducting phase qubits. *Physical Review B*, **2010**, 82,	3.3	76
7	Reduced phase error through optimized control of a superconducting qubit. *Physical Review A*, **2010**, 82,	2.6	49
6	Decoherence dynamics of complex photon states in a superconducting circuit. *Physical Review Letters*, **2009**, 103, 200404	7.4	39
5	Improving the coherence time of superconducting coplanar resonators. *Applied Physics Letters*, **2009**, 95, 233508	3.4	121
4	Synthesizing arbitrary quantum states in a superconducting resonator. *Nature*, **2009**, 459, 546-9	50.4	617
3	Violation of Bell's inequality in Josephson phase qubits. *Nature*, **2009**, 461, 504-6	50.4	290
2	Emulation of a quantum spin with a superconducting phase qudit. *Science*, **2009**, 325, 722-5	33.3	190
1	Measurement of the decay of Fock states in a superconducting quantum circuit. *Physical Review Letters*, **2008**, 101, 240401	7.4	112