Amit Vainsencher

List of Publications by Year
in descending order

32 papers	10,741 citations	159358 30 h-index	414034 32 g-index
32 all docs	32 docs citations	32 times ranked	7742 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	Nanomechanical coupling between microwave and optical photons. Nature Physics, 2013, 9, 712-716.	6.5	485
5	Qubit Architecture with High Coherence and Fast Tunable Coupling. Physical Review Letters, 2014, 113, 220502.	2.9	387
6	Planar superconducting resonators with internal quality factors above one million. Applied Physics Letters, 2012, 100, .	1.5	341
7	Digitized adiabatic quantum computing with a superconducting circuit. Nature, 2016, 534, 222-226.	13.7	339
8	A blueprint for demonstrating quantum supremacy with superconducting qubits. Science, 2018, 360, 195-199.	6.0	307
9	Chiral ground-state currents of interacting photons in a synthetic magnetic field. Nature Physics, 2017, 13, 146-151.	6.5	292
10	Fast Accurate State Measurement with Superconducting Qubits. Physical Review Letters, 2014, 112, 190504.	2.9	273
11	Digital quantum simulation of fermionic models with a superconducting circuit. Nature Communications, 2015, 6, 7654.	5.8	258
12	Computing prime factors with a Josephson phase qubit quantum processor. Nature Physics, 2012, 8, 719-723.	6.5	238
13	Ergodic dynamics and thermalization in an isolated quantum system. Nature Physics, 2016, 12, 1037-1041.	6.5	208
14	Observation of topological transitions in interacting quantum circuits. Nature, 2014, 515, 241-244.	13.7	162
15	Optimal Quantum Control Using Randomized Benchmarking. Physical Review Letters, 2014, 112, 240504.	2.9	160
16	Measuring and Suppressing Quantum State Leakage in a Superconducting Qubit. Physical Review Letters, 2016, 116, 020501.	2.9	137
17	Surface loss simulations of superconducting coplanar waveguide resonators. Applied Physics Letters, 2011, 99, .	1.5	130
18	Qubit compatible superconducting interconnects. Quantum Science and Technology, 2018, 3, 014005.	2.6	95

#	Article	IF	Citations
19	Catching Time-Reversed Microwave Coherent State Photons with 99.4% Absorption Efficiency. Physical Review Letters, 2014, 112, .	2.9	92
20	Fabrication and characterization of aluminum airbridges for superconducting microwave circuits. Applied Physics Letters, 2014, 104, .	1.5	89
21	Observation of Classical-Quantum Crossover of <mml:math xmlns:mml="http://www.w3.org/1998/Math/MathML" display="inline"><mml:mn>1</mml:mn><mml:mo stretchy="false">/</mml:mo><mml:mi>f</mml:mi></mml:math> Flux Noise and Its Paramagnetic Temperature Dependence. Physical Review Letters, 2017, 118, 057702.	2.9	87
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	Diabatic Gates for Frequency-Tunable Superconducting Qubits. Physical Review Letters, 2019, 123, 210501.	2.9	73
25	Multiplexed dispersive readout of superconducting phase qubits. Applied Physics Letters, 2012, 101, .	1.5	67
26	Qubit Metrology of Ultralow Phase Noise Using Randomized Benchmarking. Physical Review Applied, 2015, 3, .	1.5	66
27	Excitation of Superconducting Qubits from Hot Nonequilibrium Quasiparticles. Physical Review Letters, 2013, 110, 150502.	2.9	48
28	Preserving entanglement during weak measurement demonstrated with a violation of the Bellâ€“Leggettâ€“Garg inequality. Npj Quantum Information, 2016, 2, .	2.8	41
29	A method for building low loss multi-layer wiring for superconducting microwave devices. Applied Physics Letters, 2018, 112, .	1.5	35
30	Emulating weak localization using a solid-state quantum circuit. Nature Communications, 2014, 5, 5184.	5.8	30
31	Scalablein situqubit calibration during repetitive error detection. Physical Review A, 2016, 94, .	1.0	30
32	High speed flux sampling for tunable superconducting qubits with an embedded cryogenic transducer. Superconductor Science and Technology, 2019, 32, 015012.	1.8	13