Amit Vainsencher

List of Publications by Citations

32 papers	6,640 citations	28 h-index	32 g-index
32 ext. papers	8,888 ext. citations	14.8 avg, IF	4.82 L-index

#	Paper	IF	Citations
32	Quantum supremacy using a programmable superconducting processor. *Nature*, **2019**, 574, 505-510	50.4	1760
31	Superconducting quantum circuits at the surface code threshold for fault tolerance. *Nature*, **2014**, 508, 500-3	50.4	961
30	State preservation by repetitive error detection in a superconducting quantum circuit. *Nature*, **2015**, 519, 66-9	50.4	542
29	Nanomechanical coupling between microwave and optical photons. *Nature Physics*, **2013**, 9, 712-716	16.2	394
28	Qubit Architecture with High Coherence and Fast Tunable Coupling. *Physical Review Letters*, **2014**, 113, 220502	7.4	279
27	Planar superconducting resonators with internal quality factors above one million. *Applied Physics Letters*, **2012**, 100, 113510	3.4	264
26	Digitized adiabatic quantum computing with a superconducting circuit. *Nature*, **2016**, 534, 222-6	50.4	239
25	A blueprint for demonstrating quantum supremacy with superconducting qubits. *Science*, **2018**, 360, 195-199	33.3	205
24	Fast accurate state measurement with superconducting qubits. *Physical Review Letters*, **2014**, 112, 190504	7.4	200
23	Computing prime factors with a Josephson phase qubit quantum processor. *Nature Physics*, **2012**, 8, 719-723	16.2	194
22	Digital quantum simulation of fermionic models with a superconducting circuit. *Nature Communications*, **2015**, 6, 7654	17.4	191
21	Chiral ground-state currents of interacting photons in a synthetic magnetic field. *Nature Physics*, **2017**, 13, 146-151	16.2	189
20	Ergodic dynamics and thermalization in an isolated quantum system. *Nature Physics*, **2016**, 12, 1037-1041	16.2	154
19	Observation of topological transitions in interacting quantum circuits. *Nature*, **2014**, 515, 241-4	50.4	120
18	Optimal quantum control using randomized benchmarking. *Physical Review Letters*, **2014**, 112, 240504	7.4	118
17	Surface loss simulations of superconducting coplanar waveguide resonators. *Applied Physics Letters*, **2011**, 99, 113513	3.4	95
16	Measuring and Suppressing Quantum State Leakage in a Superconducting Qubit. *Physical Review Letters*, **2016**, 116, 020501	7.4	93

List of Publications

15	Catching Time-Reversed Microwave Coherent State Photons with 99.4% Absorption Efficiency. *Physical Review Letters*, **2014**, 112,	7.4	70
14	Characterization and reduction of microfabrication-induced decoherence in superconducting quantum circuits. *Applied Physics Letters*, **2014**, 105, 062601	3.4	68
13	Fabrication and characterization of aluminum airbridges for superconducting microwave circuits. *Applied Physics Letters*, **2014**, 104, 052602	3.4	60
12	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
11	Observation of Classical-Quantum Crossover of 1/f Flux Noise and Its Paramagnetic Temperature Dependence. *Physical Review Letters*, **2017**, 118, 057702	7.4	56
10	Multiplexed dispersive readout of superconducting phase qubits. *Applied Physics Letters*, **2012**, 101, 182601	3.4	53
9	Qubit compatible superconducting interconnects. *Quantum Science and Technology*, **2018**, 3, 014005	5.5	49
8	Qubit Metrology of Ultralow Phase Noise Using Randomized Benchmarking. *Physical Review Applied*, **2015**, 3,	4.3	39
7	Diabatic Gates for Frequency-Tunable Superconducting Qubits. *Physical Review Letters*, **2019**, 123, 210501	7.4	38
6	Excitation of superconducting qubits from hot nonequilibrium quasiparticles. *Physical Review Letters*, **2013**, 110, 150502	7.4	37
5	Preserving entanglement during weak measurement demonstrated with a violation of the Bell-Leggett-Garg inequality. *Npj Quantum Information*, **2016**, 2,	8.6	30
4	A method for building low loss multi-layer wiring for superconducting microwave devices. *Applied Physics Letters*, **2018**, 112, 063502	3.4	27
3	Emulating weak localization using a solid-state quantum circuit. *Nature Communications*, **2014**, 5, 5184	17.4	27
2	Scalable in situ qubit calibration during repetitive error detection. *Physical Review A*, **2016**, 94,	2.6	21
1	High speed flux sampling for tunable superconducting qubits with an embedded cryogenic transducer. *Superconductor Science and Technology*, **2019**, 32, 015012	3.1	10