Pedram Roushan

List of Publications by Year in Descending Order

30 papers	5,153 citations	21 h-index	31 g-index
31 ext. papers	7,461 ext. citations	17.9 avg, IF	4.47 L-index

#	Paper	IF	Citations
30	Realizing topologically ordered states on a quantum processor. *Science*, **2021**, 374, 1237-1241	33.3	21
29	Time-Crystalline Eigenstate Order on a Quantum Processor. *Nature*, **2021**,	50.4	8
28	Information scrambling in quantum circuits. *Science*, **2021**, eabg5029	33.3	13
27	Accurately computing the electronic properties of a quantum ring. *Nature*, **2021**, 594, 508-512	50.4	4
26	Photonic materials in circuit quantum electrodynamics. *Nature Physics*, **2020**, 16, 268-279	16.2	46
25	Entanglement and complexity of interacting qubits subject to asymmetric noise. *Physical Review Research*, **2020**, 2,	3.9	1
24	Creating and Manipulating a Laughlin-Type ⅓ Fractional Quantum Hall State on a Quantum Computer with Linear Depth Circuits. *PRX Quantum*, **2020**, 1,	6.1	4
23	Demonstrating a Continuous Set of Two-Qubit Gates for Near-Term Quantum Algorithms. *Physical Review Letters*, **2020**, 125, 120504	7.4	59
22	High speed flux sampling for tunable superconducting qubits with an embedded cryogenic transducer. *Superconductor Science and Technology*, **2019**, 32, 015012	3.1	10
21	Diabatic Gates for Frequency-Tunable Superconducting Qubits. *Physical Review Letters*, **2019**, 123, 210501	7.4	38
20	Quantum supremacy using a programmable superconducting processor. *Nature*, **2019**, 574, 505-510	50.4	1760
19	A blueprint for demonstrating quantum supremacy with superconducting qubits. *Science*, **2018**, 360, 195-199	33.3	205
18	Spectroscopic signatures of localization with interacting photons in superconducting qubits. *Science*, **2017**, 358, 1175-1179	33.3	184
17	Demonstration of gate control of spin splitting in a high-mobility InAs/AlSb two-dimensional electron gas. *Physical Review B*, **2016**, 93,	3.3	17
16	Preserving entanglement during weak measurement demonstrated with a violation of the Bell-Leggett-Garg inequality. *Npj Quantum Information*, **2016**, 2,	8.6	30
15	Ergodic dynamics and thermalization in an isolated quantum system. *Nature Physics*, **2016**, 12, 1037-1041	16.2	154
14	State preservation by repetitive error detection in a superconducting quantum circuit. *Nature*, **2015**, 519, 66-9	50.4	542

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13	Tunable coupler for superconducting Xmon qubits: Perturbative nonlinear model. *Physical Review A* , **2015**, 92,	2.6	38
12	Qubit Metrology of Ultralow Phase Noise Using Randomized Benchmarking. *Physical Review Applied*, **2015**, 3,	4.3	39
11	Superconducting quantum circuits at the surface code threshold for fault tolerance. *Nature*, **2014**, 508, 500-3	50.4	961
10	Observation of topological transitions in interacting quantum circuits. *Nature*, **2014**, 515, 241-4	50.4	120
9	Emulating weak localization using a solid-state quantum circuit. *Nature Communications*, **2014**, 5, 5184	17.4	27
8	Fast accurate state measurement with superconducting qubits. *Physical Review Letters*, **2014**, 112, 190504	7.4	200
7	Optimal quantum control using randomized benchmarking. *Physical Review Letters*, **2014**, 112, 240504	7.4	118
6	Rolling quantum dice with a superconducting qubit. *Physical Review A*, **2014**, 90,	2.6	20
5	Catching Time-Reversed Microwave Coherent State Photons with 99.4% Absorption Efficiency. *Physical Review Letters*, **2014**, 112,	7.4	70
4	Qubit Architecture with High Coherence and Fast Tunable Coupling. *Physical Review Letters*, **2014**, 113, 220502	7.4	279
3	Characterization and reduction of microfabrication-induced decoherence in superconducting quantum circuits. *Applied Physics Letters*, **2014**, 105, 062601	3.4	68
2	Fabrication and characterization of aluminum airbridges for superconducting microwave circuits. *Applied Physics Letters*, **2014**, 104, 052602	3.4	60
1	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