

# Benjamin Chiaro

## List of Publications by Year in descending order

Source: <https://exaly.com/author-pdf/3790564/publications.pdf>

Version: 2024-02-01

35  
papers

6,407  
citations

159585

30  
h-index

361022

35  
g-index

35  
all docs

35  
docs citations

35  
times ranked

4690  
citing authors

#	ARTICLE	IF	CITATIONS
1	Superconducting quantum circuits at the surface code threshold for fault tolerance. Nature, 2014, 508, 500-503.	27.8	1,270
2	State preservation by repetitive error detection in a superconducting quantum circuit. Nature, 2015, 519, 66-69.	27.8	682
3	Qubit Architecture with High Coherence and Fast Tunable Coupling. Physical Review Letters, 2014, 113, 220502.	7.8	387
4	Planar superconducting resonators with internal quality factors above one million. Applied Physics Letters, 2012, 100, .	3.3	341
5	Digitized adiabatic quantum computing with a superconducting circuit. Nature, 2016, 534, 222-226.	27.8	339
6	Spectroscopic signatures of localization with interacting photons in superconducting qubits. Science, 2017, 358, 1175-1179.	12.6	315
7	A blueprint for demonstrating quantum supremacy with superconducting qubits. Science, 2018, 360, 195-199.	12.6	307
8	Chiral ground-state currents of interacting photons in a synthetic magnetic field. Nature Physics, 2017, 13, 146-151.	16.7	292
9	Fast Accurate State Measurement with Superconducting Qubits. Physical Review Letters, 2014, 112, 190504.	7.8	273
10	Digital quantum simulation of fermionic models with a superconducting circuit. Nature Communications, 2015, 6, 7654.	12.8	258
11	Ergodic dynamics and thermalization in an isolated quantum system. Nature Physics, 2016, 12, 1037-1041.	16.7	208
12	Observation of topological transitions in interacting quantum circuits. Nature, 2014, 515, 241-244.	27.8	162
13	Optimal Quantum Control Using Randomized Benchmarking. Physical Review Letters, 2014, 112, 240504.	7.8	160
14	Demonstrating a Continuous Set of Two-qubit Gates for Near-term Quantum Algorithms. Physical Review Letters, 2020, 125, 120504.	7.8	146
15	Measuring and Suppressing Quantum State Leakage in a Superconducting Qubit. Physical Review Letters, 2016, 116, 020501.	7.8	137
16	Catching Time-Reversed Microwave Coherent State Photons with 99.4% Absorption Efficiency. Physical Review Letters, 2014, 112, .	7.8	92
17	Measurement-Induced State Transitions in a Superconducting Qubit: Beyond the Rotating Wave Approximation. Physical Review Letters, 2016, 117, 190503.	7.8	91
18	Fabrication and characterization of aluminum airbridges for superconducting microwave circuits. Applied Physics Letters, 2014, 104, .	3.3	89

#	ARTICLE	IF	CITATIONS
19	Observation of Classical-Quantum Crossover of $\langle \text{Flux Noise and Its Paramagnetic Temperature Dependence} \rangle$ . Physical Review Letters, 2017, 118, 057702.	7.8	87
20	Characterization and reduction of microfabrication-induced decoherence in superconducting quantum circuits. Applied Physics Letters, 2014, 105, .	3.3	85
21	Characterization and reduction of capacitive loss induced by sub-micron Josephson junction fabrication in superconducting qubits. Applied Physics Letters, 2017, 111, .	3.3	76
22	Design and characterization of a lumped element single-ended superconducting microwave parametric amplifier with on-chip flux bias line. Applied Physics Letters, 2013, 103, .	3.3	73
23	Diabatic Gates for Frequency-Tunable Superconducting Qubits. Physical Review Letters, 2019, 123, 210501.	7.8	73
24	Multiplexed dispersive readout of superconducting phase qubits. Applied Physics Letters, 2012, 101, .	3.3	67
25	Qubit Metrology of Ultralow Phase Noise Using Randomized Benchmarking. Physical Review Applied, 2015, 3, .	3.8	66
26	Excitation of Superconducting Qubits from Hot Nonequilibrium Quasiparticles. Physical Review Letters, 2013, 110, 150502.	7.8	48
27	Accurately computing the electronic properties of a quantum ring. Nature, 2021, 594, 508-512.	27.8	47
28	Fluctuations from edge defects in superconducting resonators. Applied Physics Letters, 2013, 103, .	3.3	44
29	Preserving entanglement during weak measurement demonstrated with a violation of the Bell-“Leggett” Garg inequality. Npj Quantum Information, 2016, 2, .	6.7	41
30	A method for building low loss multi-layer wiring for superconducting microwave devices. Applied Physics Letters, 2018, 112, .	3.3	35
31	Emulating weak localization using a solid-state quantum circuit. Nature Communications, 2014, 5, 5184.	12.8	30
32	Scalable <i>in situ</i> qubit calibration during repetitive error detection. Physical Review A, 2016, 94, .	2.5	30
33	Rolling quantum dice with a superconducting qubit. Physical Review A, 2014, 90, .	2.5	27
34	Direct measurement of nonlocal interactions in the many-body localized phase. Physical Review Research, 2022, 4, .	3.6	16
35	High speed flux sampling for tunable superconducting qubits with an embedded cryogenic transducer. Superconductor Science and Technology, 2019, 32, 015012.	3.5	13