Robert Mcdermott

List of Publications by Year
in descending order

37 papers	2,957 citations	331259 21 h-index	329751 37 g-index
39 all docs	39 docs citations	39 times ranked	2345 citing authors

#	Article	IF	Citations
1	Decoherence in Josephson Qubits from Dielectric Loss. Physical Review Letters, 2005, 95, 210503.	2.9	616
2	Liquid-State NMR and Scalar Couplings in Microtesla Magnetic Fields. Science, 2002, 295, 2247-2249.	6.0	279
3	Simultaneous State Measurement of Coupled Josephson Phase Qubits. Science, 2005, 307, 1299-1302.	6.0	263
4	Observation of Quantum Oscillations between a Josephson Phase Qubit and a Microscopic Resonator Using Fast Readout. Physical Review Letters, 2004, 93, 180401.	2.9	189
5	Microwave Photon Counter Based on Josephson Junctions. Physical Review Letters, 2011, 107, 217401.	2.9	184
6	State Tomography of Capacitively Shunted Phase Qubits with High Fidelity. Physical Review Letters, 2006, 97, 050502.	2.9	167
7	Magnetism in SQUIDs at Millikelvin Temperatures. Physical Review Letters, 2008, 100, 227006.	2.9	127
8	Correlated charge noise and relaxation errors in superconducting qubits. Nature, 2021, 594, 369-373.	13.7	109
9	Origin and Reduction 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> Magnetic Flux Noise in Superconducting Devices. Physical Review Applied, 2016, 6, .	1.5	105
10	Quantumâ€“classical interface based on single flux quantum digital logic. Quantum Science and Technology, 2018, 3, 024004.	2.6	105
11	Microwave response of vortices in superconducting thin films of Re and Al. Physical Review B, 2009, 79, .	1.1	96
12	Digital Coherent Control of a Superconducting Qubit. Physical Review Applied, 2019, 11, .	1.5	88
13	Materials Origins of Decoherence in Superconducting Qubits. IEEE Transactions on Applied Superconductivity, 2009, 19, 2-13.	1.1	76
14	Accurate Qubit Control with Single Flux Quantum Pulses. Physical Review Applied, 2014, 2, .	1.5	62
15	Measurement of a superconducting qubit with a microwave photon counter. Science, 2018, 361, 1239-1242.	6.0	62
16	Microwave-to-optical frequency conversion using a cesium atom coupled to a superconducting resonator. Physical Review A, 2017, 96, .	1.0	55
17	Complex Inductance, Excess Noise, and Surface Magnetism in dc SQUIDs. Physical Review Letters, 2009, 103, 117001.	2.9	52
18	Phonon-mediated quasiparticle poisoning of superconducting microwave resonators. Physical Review B, 2017, 96, .	1.1	50

#	Article	IF	Citations
19	High-fidelity qubit measurement with a microwave-photon counter. Physical Review A, 2014, 90, .	1.0	36
20	Anomalous charge noise in superconducting qubits. Physical Review B, 2019, 100, .	1.1	36
21	Superconducting low-inductance undulatory galvanometer microwave amplifier. Applied Physics Letters, 2012, 100, .	1.5	32
22	Interfacing Superconducting Qubits With Cryogenic Logic: Readout. IEEE Transactions on Applied Superconductivity, 2019, 29, 1-5.	1.1	21
23	High fidelity qubit readout with the superconducting low-inductance undulatory galvanometer microwave amplifier. Applied Physics Letters, 2014, 104, .	1.5	19
24	3D integration and measurement of a semiconductor double quantum dot with a high-impedance TiN resonator. Npj Quantum Information, 2021, 7, .	2.8	19
25	High-Fidelity Measurement of a Superconducting Qubit Using an On-Chip Microwave Photon Counter. Physical Review X, 2021, 11, .	2.8	16
26	Optimized coplanar waveguide resonators for a superconductorâ€“atom interface. Applied Physics Letters, 2016, 109, 092602.	1.5	13
27	Optimizing microwave photodetection: inputâ€“output theory. Quantum Science and Technology, 2018, 3, 024009.	2.6	13
28	Scalable two- and four-qubit parity measurement with a threshold photon counter. Physical Review A, 2015, 92, .	1.0	12
29	Microstrip superconducting quantum interference device amplifiers with submicron Josephson junctions: Enhanced gain at gigahertz frequencies. Applied Physics Letters, 2010, 97, .	1.5	11
30	Epitaxial Al2O3 capacitors for low microwave loss superconducting quantum circuits. APL Materials, 2013, 1, .	2.2	9
31	A tunable quantum dissipator for active resonator reset in circuit QED. Quantum Science and Technology, 2019, 4, 025001.	2.6	9
32	Microwave engineering for semiconductor quantum dots in a cQED architecture. Applied Physics Letters, 2020, 117, .	1.5	8
33	Microstrip superconducting quantum interference device radio-frequency amplifier: Effects of negative feedback on input impedance. Applied Physics Letters, 2009, 94, .	1.5	6
34	Reverse Isolation and Backaction of the SLUG Microwave Amplifier. Physical Review Applied, 2017, 8, .	1.5	6
35	Overlap junctions for superconducting quantum electronics and amplifiers. Applied Physics Letters, 2021, 118, 112601.	1.5	2
36	Local Atomic Configuration Control of Superconductivity in the Undoped Pnictide Parent Compound BaFe₂As₂. ACS Applied Electronic Materials, 2022, 4, 1511-1517.	2.0	2

#	Article	IF	Citations
37	A Josephson Junction with h-BN tunnel barrier: observation of low critical current noise. Journal of Physics Condensed Matter, 2021, 33, .	0.7	1