

Ioan M Pop

List of Publications by Year in Descending Order

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The third column is the impact factor (IF) of the journal, and the fourth column is the number of citations of the article.

46
papers

1,635
citations

21
h-index

40
g-index

47
ext. papers

2,121
ext. citations

7.3
avg, IF

4.38
L-index

#	Paper	IF	Citations
46	Operating in a deep underground facility improves the locking of gradiometric fluxonium qubits at the sweet spots. <i>Applied Physics Letters</i> , 2022 , 120, 054001	3.4	0
45	Reducing the impact of radioactivity on quantum circuits in a deep-underground facility. <i>Nature Communications</i> , 2021 , 12, 2733	17.4	21
44	Quantum Nondemolition Dispersive Readout of a Superconducting Artificial Atom Using Large Photon Numbers. <i>Physical Review Applied</i> , 2021 , 15,	4.3	3
43	Minimizing the Discrimination Time for Quantum States of an Artificial Atom. <i>Physical Review Applied</i> , 2021 , 15,	4.3	1
42	Energy-participation quantization of Josephson circuits. <i>Npj Quantum Information</i> , 2021 , 7,	8.6	5
41	Quantum Versus Classical Switching Dynamics of Driven Dissipative Kerr Resonators. <i>Physical Review Applied</i> , 2020 , 13,	4.3	2
40	State preparation of a fluxonium qubit with feedback from a custom FPGA-based platform 2020 ,		7
39	Nondegenerate Parametric Amplifiers Based on Dispersion-Engineered Josephson-Junction Arrays. <i>Physical Review Applied</i> , 2020 , 13,	4.3	12
38	DEMETRA: Suppression of the Relaxation Induced by Radioactivity in Superconducting Qubits. <i>Journal of Low Temperature Physics</i> , 2020 , 199, 475-481	1.3	1
37	Superconducting granular aluminum resonators resilient to magnetic fields up to 1 Tesla. <i>Applied Physics Letters</i> , 2020 , 117, 120502	3.4	2
36	Microscopic charging and in-gap states in superconducting granular aluminum. <i>Physical Review B</i> , 2020 , 102,	3.3	2
35	Implementation of a Transmon Qubit Using Superconducting Granular Aluminum. <i>Physical Review X</i> , 2020 , 10,	9.1	4
34	Granular aluminium as a superconducting material for high-impedance quantum circuits. <i>Nature Materials</i> , 2019 , 18, 816-819	27	45
33	Electrodynamics of granular aluminum from superconductor to insulator: Observation of collective superconducting modes. <i>Physical Review B</i> , 2019 , 99,	3.3	17
32	Interplay Between Kinetic Inductance, Nonlinearity, and Quasiparticle Dynamics in Granular Aluminum Microwave Kinetic Inductance Detectors. <i>Physical Review Applied</i> , 2019 , 11,	4.3	12
31	Onset of phase diffusion in high kinetic inductance granular aluminum micro-SQUIDs. <i>Superconductor Science and Technology</i> , 2019 , 32, 125008	3.1	3
30	Phonon traps reduce the quasiparticle density in superconducting circuits. <i>Applied Physics Letters</i> , 2019 , 115, 212601	3.4	18

29	Bistability in a mesoscopic Josephson junction array resonator. <i>Physical Review B</i> , 2018 , 97,	3-3	13
28	Fluxon-based quantum simulation in circuit QED. <i>Physical Review B</i> , 2018 , 98,	3-3	4
27	Circuit quantum electrodynamics of granular aluminum resonators. <i>Nature Communications</i> , 2018 , 9, 3889	17.4	45
26	Loss Mechanisms and Quasiparticle Dynamics in Superconducting Microwave Resonators Made of Thin-Film Granular Aluminum. <i>Physical Review Letters</i> , 2018 , 121, 117001	7.4	59
25	Tunable ohmic environment using Josephson junction chains. <i>Physical Review B</i> , 2018 , 97,	3-3	10
24	Driving Forbidden Transitions in the Fluxonium Artificial Atom. <i>Physical Review Applied</i> , 2018 , 9,	4-3	14
23	Simultaneous Monitoring of Fluxonium Qubits in a Waveguide. <i>Physical Review Applied</i> , 2018 , 9,	4-3	19
22	An argon ion beam milling process for native AlOx layers enabling coherent superconducting contacts. <i>Applied Physics Letters</i> , 2017 , 111, 072601	3-4	13
21	Inductively shunted transmon qubit with tunable transverse and longitudinal coupling. <i>Physical Review B</i> , 2017 , 96,	3-3	21
20	Planar Multilayer Circuit Quantum Electrodynamics. <i>Physical Review Applied</i> , 2016 , 5,	4-3	27
19	Quantization of inductively shunted superconducting circuits. <i>Physical Review B</i> , 2016 , 94,	3-3	20
18	Quantum engineering. Confining the state of light to a quantum manifold by engineered two-photon loss. <i>Science</i> , 2015 , 347, 853-7	33-3	223
17	Bloch band dynamics of a Josephson junction in an inductive environment. <i>Physical Review B</i> , 2015 , 91,	3-3	24
16	Coherent suppression of electromagnetic dissipation due to superconducting quasiparticles. <i>Nature</i> , 2014 , 508, 369-72	50-4	146
15	Non-Poissonian quantum jumps of a fluxonium qubit due to quasiparticle excitations. <i>Physical Review Letters</i> , 2014 , 113, 247001	7.4	71
14	Understanding the BR spectra of MnSi without magnetic polarons. <i>Physical Review B</i> , 2014 , 89,	3-3	30
13	Measurement and control of quasiparticle dynamics in a superconducting qubit. <i>Nature Communications</i> , 2014 , 5, 5836	17.4	88
12	Reaching 10 ms single photon lifetimes for superconducting aluminum cavities. <i>Applied Physics Letters</i> , 2013 , 102, 192604	3-4	126

11	Quantum phase slips in Josephson junction rings. <i>Physical Review B</i> , 2013 , 87,	3.3	46
10	Planar superconducting whispering gallery mode resonators. <i>Applied Physics Letters</i> , 2013 , 103, 142604	3.4	11
9	Demonstrating a driven reset protocol for a superconducting qubit. <i>Physical Review Letters</i> , 2013 , 110, 120501	7.4	118
8	Microwave characterization of Josephson junction arrays: implementing a low loss superinductance. <i>Physical Review Letters</i> , 2012 , 109, 137002	7.4	120
7	Experimental demonstration of Aharonov-Casher interference in a Josephson junction circuit. <i>Physical Review B</i> , 2012 , 85,	3.3	23
6	Coherent frequency conversion in a superconducting artificial atom with two internal degrees of freedom. <i>Physical Review Letters</i> , 2012 , 108, 107001	7.4	12
5	Fabrication of stable and reproducible submicron tunnel junctions. <i>Journal of Vacuum Science and Technology B: Nanotechnology and Microelectronics</i> , 2012 , 30, 010607	1.3	36
4	Junction fabrication by shadow evaporation without a suspended bridge. <i>Nanotechnology</i> , 2011 , 22, 315302	3.4	57
3	Measurement of the effect of quantum phase slips in a Josephson junction chain. <i>Nature Physics</i> , 2010 , 6, 589-592	16.2	75
2	Quantum dynamics of superconducting nano-circuits: phase qubit, charge qubit and rhombi chains. <i>Quantum Information Processing</i> , 2009 , 8, 155-182	1.6	8
1	Measurement of the current-phase relation in Josephson junction rhombi chains. <i>Physical Review B</i> , 2008 , 78,	3.3	21