

# Philip Krantz

## 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.

26 papers	1,200 citations	15 h-index	27 g-index
27 ext. papers	2,017 ext. citations	9 avg, IF	4.87 L-index

#	Paper	IF	Citations
26	Microwave calibration of qubit drive line components at millikelvin temperatures. <i>Applied Physics Letters</i> , <b>2022</b> , 120, 054004	3.4	1
25	Multi-level quantum noise spectroscopy. <i>Nature Communications</i> , <b>2021</b> , 12, 967	17.4	4
24	Simplified Josephson-junction fabrication process for reproducibly high-performance superconducting qubits. <i>Applied Physics Letters</i> , <b>2021</b> , 118, 064002	3.4	11
23	Superconducting Qubits: Current State of Play. <i>Annual Review of Condensed Matter Physics</i> , <b>2020</b> , 11, 369-395	19.7	257
22	Generating spatially entangled itinerant photons with waveguide quantum electrodynamics. <i>Science Advances</i> , <b>2020</b> , 6,	14.3	9
21	Waveguide quantum electrodynamics with superconducting artificial giant atoms. <i>Nature</i> , <b>2020</b> , 583, 775-779	50.4	40
20	Improved Success Probability with Greater Circuit Depth for the Quantum Approximate Optimization Algorithm. <i>Physical Review Applied</i> , <b>2020</b> , 14,	4.3	20
19	A quantum engineers guide to superconducting qubits. <i>Applied Physics Reviews</i> , <b>2019</b> , 6, 021318	17.3	358
18	Coherent control of a hybrid superconducting circuit made with graphene-based van der Waals heterostructures. <i>Nature Nanotechnology</i> , <b>2019</b> , 14, 120-125	28.7	75
17	Nondegenerate parametric oscillations in a tunable superconducting resonator. <i>Physical Review B</i> , <b>2018</b> , 97,	3.3	8
16	Tunable Coupling Scheme for Implementing High-Fidelity Two-Qubit Gates. <i>Physical Review Applied</i> , <b>2018</b> , 10,	4.3	63
15	Microwave photon generation in a doubly tunable superconducting resonator. <i>Journal of Physics: Conference Series</i> , <b>2018</b> , 969, 012146	0.3	6
14	Distinguishing Coherent and Thermal Photon Noise in a Circuit Quantum Electrodynamical System. <i>Physical Review Letters</i> , <b>2018</b> , 120, 260504	7.4	27
13	3D integrated superconducting qubits. <i>Npj Quantum Information</i> , <b>2017</b> , 3,	8.6	81
12	Period-tripling subharmonic oscillations in a driven superconducting resonator. <i>Physical Review B</i> , <b>2017</b> , 96,	3.3	19
11	Single-shot read-out of a superconducting qubit using a Josephson parametric oscillator. <i>Nature Communications</i> , <b>2016</b> , 7, 11417	17.4	42
10	Correlation between Al grain size, grain boundary grooves and local variations in oxide barrier thickness of Al/AlO <sub>x</sub> /Al tunnel junctions by transmission electron microscopy. <i>SpringerPlus</i> , <b>2016</b> , 5, 1067		9

9	The atomic details of the interfacial interaction between the bottom electrode of Al/AlO <sub>x</sub> /Al Josephson junctions and HF-treated Si substrates. <i>Journal of Applied Physics</i> , <b>2015</b> , 117, 163915	2.5	10
8	Characterization of a multimode coplanar waveguide parametric amplifier. <i>Journal of Applied Physics</i> , <b>2015</b> , 118, 154501	2.5	33
7	Direct observation of the thickness distribution of ultra thin AlO <sub>x</sub> barriers in Al/AlO <sub>x</sub> /Al Josephson junctions. <i>Journal Physics D: Applied Physics</i> , <b>2015</b> , 48, 395308	3	44
6	Fabrication of large dimension aluminum air-bridges for superconducting quantum circuits. <i>Journal of Vacuum Science and Technology B: Nanotechnology and Microelectronics</i> , <b>2013</b> , 31, 031601	1.3	12
5	Investigation of nonlinear effects in Josephson parametric oscillators used in circuit quantum electrodynamics. <i>New Journal of Physics</i> , <b>2013</b> , 15, 105002	2.9	24
4	The pumpistor: A linearized model of a flux-pumped superconducting quantum interference device for use as a negative-resistance parametric amplifier. <i>Applied Physics Letters</i> , <b>2013</b> , 103, 102603	3.4	15
3	Niobium and Aluminum Josephson Junctions Fabricated with a Damascene CMP Process. <i>Physics Procedia</i> , <b>2012</b> , 36, 211-216		1
2	Coupling of an erbium spin ensemble to a superconducting resonator. <i>Journal of Physics B: Atomic, Molecular and Optical Physics</i> , <b>2012</b> , 45, 124019	1.3	28
1	An On-Chip Mach-Zehnder Interferometer in the Microwave Regime. <i>IEEE Transactions on Applied Superconductivity</i> , <b>2011</b> , 21, 448-451	1.8	3