

# Yuri A Pashkin

## List of Publications by Year in descending order

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106  
papers

7,589  
citations

172207

29  
h-index

53109

85  
g-index

108  
all docs

108  
docs citations

108  
times ranked

3925  
citing authors

#	ARTICLE	IF	CITATIONS
1	Coherent control of macroscopic quantum states in a single-Cooper-pair box. Nature, 1999, 398, 786-788.	13.7	2,136
2	Quantum oscillations in two coupled charge qubits. Nature, 2003, 421, 823-826.	13.7	671
3	Resonance Fluorescence of a Single Artificial Atom. Science, 2010, 327, 840-843.	6.0	574
4	Demonstration of conditional gate operation using superconducting charge qubits. Nature, 2003, 425, 941-944.	13.7	564
5	Single-electron current sources: Toward a refined definition of the ampere. Reviews of Modern Physics, 2013, 85, 1421-1472.	16.4	285
6	Charge Echo in a Cooper-Pair Box. Physical Review Letters, 2002, 88, 047901.	2.9	282
7	Single artificial-atom lasing. Nature, 2007, 449, 588-590.	13.7	282
8	Electromagnetically Induced Transparency on a Single Artificial Atom. Physical Review Letters, 2010, 104, 193601.	2.9	282
9	Quantum Noise in the Josephson Charge Qubit. Physical Review Letters, 2004, 93, 267007.	2.9	250
10	Coherent quantum phase slip. Nature, 2012, 484, 355-358.	13.7	222
11	Rabi Oscillations in a Josephson-Junction Charge Two-Level System. Physical Review Letters, 2001, 87, 246601.	2.9	182
12	Environment-Assisted Tunneling as an Origin of the Dynes Density of States. Physical Review Letters, 2010, 105, 026803.	2.9	153
13	Nonmagnetic semiconductors as read-head sensors for ultra-high-density magnetic recording. Applied Physics Letters, 2002, 80, 4012-4014.	1.5	134
14	Vacuum Rabi splitting due to strong coupling of a flux qubit and a coplanar-waveguide resonator. Physical Review B, 2008, 78, .	1.1	115
15	Room-temperature Al single-electron transistor made by electron-beam lithography. Applied Physics Letters, 2000, 76, 2256-2258.	1.5	101
16	Ultimate On-Chip Quantum Amplifier. Physical Review Letters, 2010, 104, 183603.	2.9	100
17	Parallel pumping of electrons. New Journal of Physics, 2009, 11, 113057.	1.2	76
18	Single-shot measurement of the Josephson charge qubit. Physical Review B, 2004, 69, .	1.1	71

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19	Temperature Square Dependence of the Low Frequency $1/f$ Charge Noise in the Josephson Junction Qubits. <i>Physical Review Letters</i> , 2006, 96, 137001.	2.9	68
20	Josephson charge qubits: a brief review. <i>Quantum Information Processing</i> , 2009, 8, 55-80.	1.0	61
21	Real-Time Observation of Discrete Andreev Tunneling Events. <i>Physical Review Letters</i> , 2011, 106, 217003.	2.9	50
22	Dynamics of Coherent and Incoherent Emission from an Artificial Atom in a 1D Space. <i>Physical Review Letters</i> , 2011, 107, 043604.	2.9	49
23	Single-electron tunneling through an individual arsenic dopant in silicon. <i>Nanoscale</i> , 2017, 9, 613-620.	2.8	45
24	High-frequency metallic nanomechanical resonators. <i>Applied Physics Letters</i> , 2008, 92, 043112.	1.5	41
25	Damping in high-frequency metallic nanomechanical resonators. <i>Physical Review B</i> , 2010, 81, .	1.1	39
26	Experimental investigation of hybrid single-electron turnstiles with high charging energy. <i>Applied Physics Letters</i> , 2009, 94, 172108.	1.5	35
27	Nanoelectronic primary thermometry below $4\mu\text{mK}$ . <i>Nature Communications</i> , 2016, 7, 10455.	5.8	35
28	On the origin of the controversial electrostatic field effect in superconductors. <i>Nature Communications</i> , 2021, 12, 2747.	5.8	33
29	Parity effect in superconducting aluminum single electron transistors with spatial gap profile controlled by film thickness. <i>Applied Physics Letters</i> , 2006, 88, 212509.	1.5	29
30	Spectroscopy of superconducting charge qubits coupled by a Josephson inductance. <i>Physical Review B</i> , 2008, 77, .	1.1	28
31	Room temperature extraordinary magnetoresistance of nonmagnetic narrow-gap semiconductor/metal composites: application to read-head sensors for ultrahigh-density magnetic recording. <i>IEEE Transactions on Magnetics</i> , 2002, 38, 89-94.	1.2	27
32	Single-Electronic Radio-Frequency Refrigerator. <i>Physical Review Letters</i> , 2009, 103, 120801.	2.9	25
33	Potential barrier modification and interface states formation in metal-oxide-metal tunnel junctions. <i>Physical Review B</i> , 2009, 80, .	1.1	23
34	On-chip magnetic cooling of a nanoelectronic device. <i>Scientific Reports</i> , 2017, 7, 45566.	1.6	21
35	Quantum coherence in a single-Cooper-pair box: experiments in the frequency and time domains. <i>Physica B: Condensed Matter</i> , 2000, 280, 405-409.	1.3	20
36	Low-frequency charge noise in suspended aluminum single-electron transistors. <i>Applied Physics Letters</i> , 2007, 91, .	1.5	20

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37	An all-€chromium single electron transistor: A possible new element of single electronics. Applied Physics Letters, 1996, 68, 2902-2904.	1.5	18
38	Coherent manipulation of coupled Josephson charge qubits. Physica C: Superconductivity and Its Applications, 2005, 426-431, 1552-1560.	0.6	18
39	Electronic cooling of a submicron-sized metallic beam. Applied Physics Letters, 2009, 94, .	1.5	18
40	Spectral analysis and identification of noises in quantum systems. Physical Review A, 2013, 87, .	1.0	18
41	Nanoscope magnetic field sensor based on extraordinary magnetoresistance. Journal of Vacuum Science & Technology an Official Journal of the American Vacuum Society B, Microelectronics Processing and Phenomena, 2003, 21, 3002.	1.6	17
42	Operating Nanobeams in a Quantum Fluid. Scientific Reports, 2017, 7, 4876.	1.6	17
43	Charge transport and Zener tunneling in small Josephson junctions with dissipation. Physical Review B, 1996, 54, 10074-10080.	1.1	16
44	Highly Sensitive Electrometers Based on Single Cooper Pair Tunneling. Journal of Superconductivity and Novel Magnetism, 1999, 12, 747-755.	0.5	15
45	Single-Electron Pumping by Parallel SINIS Turnstiles for Quantum Current Standard. IEEE Transactions on Instrumentation and Measurement, 2015, 64, 1696-1701.	2.4	15
46	Linewidth of Bloch oscillations in small Josephson junctions. Physica B: Condensed Matter, 1994, 203, 376-380.	1.3	14
47	Metallic resistively coupled single-electron transistor. Applied Physics Letters, 1999, 74, 132-134.	1.5	14
48	Nanoscale real-time detection of quantum vortices at millikelvin temperatures. Nature Communications, 2021, 12, 2645.	5.8	14
49	Experiments on tunnelling in small normal-metal junctions influenced by dissipative environment: Critical comparison to the theories of quantum fluctuations. Europhysics Letters, 1998, 43, 59-64.	0.7	13
50	Charge transport through ultrasmall single and double Josephson junctions coupled to resonant modes of the electromagnetic environment. Physical Review B, 2011, 83, .	1.1	13
51	Probing superfluid $^4\text{He}$ with high-frequency nanomechanical resonators down to millikelvin temperatures. Physical Review B, 2019, 100, .	1.1	13
52	Observation of thermally excited charge transport modes in a superconducting single-electron transistor. Europhysics Letters, 1997, 39, 305-310.	0.7	12
53	Superconducting single-Cooper-pair box quantum bit with multi-gate-pulse operation. Physica C: Superconductivity and Its Applications, 2002, 367, 191-196.	0.6	12
54	Characterization of ultrasmall all-Nb tunnel junctions with ion gun oxidized barriers. Applied Physics Letters, 2006, 88, 112113.	1.5	12

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55	Graphene-based tunable SQUIDs. Applied Physics Letters, 2017, 110, .	1.5	12
56	Parity effect in Al and Nb single electron transistors in a tunable environment. Applied Physics Letters, 2007, 91, 063512.	1.5	10
57	Detection of mechanical resonance of a single-electron transistor by direct current. Applied Physics Letters, 2010, 96, .	1.5	10
58	Josephson effect and macroscopic quantum interference in high-T/sub c/ superconducting thin-film weak links at 77 K. IEEE Transactions on Magnetics, 1989, 25, 943-945.	1.2	9
59	Detecting a phonon flux in superfluid He4 by a nanomechanical resonator. Physical Review B, 2020, 101, .	1.1	9
60	Single electron tunnelling oscillations in a current-biased Josephson junction. Physica B: Condensed Matter, 1994, 194-196, 1713-1714.	1.3	8
61	Coherent Manipulations of Charge-Number States in a Cooper-Pair Box. Physica Scripta, 2002, T102, 155.	1.2	8
62	ENTANGLEMENT OF TWO COUPLED CHARGE QUBITS. International Journal of Quantum Information, 2003, 01, 421-426.	0.6	8
63	High Quality Factor Mechanical Resonance in a Silicon Nanowire. JETP Letters, 2018, 108, 492-497.	0.4	8
64	Measurement of the superconducting single electron transistor in a high impedance environment. Physica B: Condensed Matter, 1994, 203, 347-353.	1.3	7
65	Multiplexing Superconducting Qubit Circuit for Single Microwave Photon Generation. Journal of Low Temperature Physics, 2017, 189, 60-75.	0.6	6
66	Interplay of the Inverse Proximity Effect and Magnetic Field in Out-of-Equilibrium Single-Electron Devices. Physical Review Applied, 2017, 7, .	1.5	6
67	Nongalvanic Calibration and Operation of a Quantum Dot Thermometer. Physical Review Applied, 2021, 15, .	1.5	6
68	Superconducting single-Cooper-pair box as quantum bit. Physica C: Superconductivity and Its Applications, 2001, 357-360, 1-6.	0.6	5
69	Characterization of all-Nb nanodevices fabricated by electron beam lithography and ion beam oxidation. Journal of Vacuum Science & Technology B, 2007, 25, 448.	1.3	5
70	Development of the sinis turnstile for the quantum metrological triangle. , 2010, , .		5
71	Coherent superconducting quantum pump. Physical Review B, 2012, 85, .	1.1	5
72	Implementation of Single-Electron Transistor with Resistive Gate. Japanese Journal of Applied Physics, 1999, 38, 406-409.	0.8	4

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73	Fabrication and characterization of chromium based single-electron transistors with evaporated chromium oxide barrier tunnel junctions. Journal of Vacuum Science & Technology an Official Journal of the American Vacuum Society B, Microelectronics Processing and Phenomena, 1999, 17, 1413.	1.6	4
74	Comment on "Charge-Qubit Operation of an Isolated Double Quantum Dot", Physical Review Letters, 2006, 97, 208901; author reply 208902.	2.9	4
75	Temperature dependence of single-electron pumping using a SINIS turnstile. Physica C: Superconductivity and Its Applications, 2014, 504, 93-96.	0.6	4
76	Bloch oscillations in a double Josephson junction biased via high-ohmic resistors. Superconductor Science and Technology, 1994, 7, 324-326.	1.8	3
77	Application of low temperature scanning electron microscopy for the investigation of single-electron tunneling circuits. Journal of Applied Physics, 1994, 76, 376-384.	1.1	3
78	Subgap leakage and interface states in superconductor-insulator-superconductor tunnel junctions. Physica C: Superconductivity and Its Applications, 2010, 470, S832-S833.	0.6	3
79	Fabrication and characterization of Al nanomechanical resonators for coupling to nanoelectronic devices. Applied Physics A: Materials Science and Processing, 2012, 108, 7-11.	1.1	3
80	Multimode probing of superfluid 4He by tuning forks. Applied Physics Letters, 2019, 115, .	1.5	3
81	Fabry-Perot interferometric calibration of van der Waals material-based nanomechanical resonators. Nanoscale Advances, 2022, 4, 502-509.	2.2	3
82	2e periodic modulation of the I-V curve of a current-biased superconducting transistor. Physica B: Condensed Matter, 1994, 194-196, 1049-1050.	1.3	2
83	Imaging Off-Resonance Nanomechanical Motion as Modal Superposition. Advanced Science, 2021, 8, 2005041.	5.6	2
84	Coulomb Blockade in Resistively Coupled Single-Electron Transistor: Dependence on Bias Conditions. Japanese Journal of Applied Physics, 1999, 38, 2466-2469.	0.8	1
85	The first solid state qubit. , 0, , .		1
86	Towards accurate charge transport with SINIS turnstile. , 2012, , .		1
87	SINIS turnstile for quantum current standards. , 2014, , .		1
88	Conditional gate operation in superconducting charge qubits. , 2006, , 10-18.		1
89	Quantum-State Interference in a Cooper-Pair Box. , 2001, , 17-24.		1
90	Optoelectrical Nanomechanical Resonators Made from Multilayered Two-Dimensional Materials. ACS Applied Nano Materials, 2022, 5, 8875-8882.	2.4	1

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91	Magnetic field dependence of the current-voltage curve of a superconducting single electron transistor in a high impedance environment. <i>European Physical Journal D</i> , 1996, 46, 2291-2292.	0.4	0
92	Zener tunneling in small Josephson junctions with dissipation. <i>European Physical Journal D</i> , 1996, 46, 655-656.	0.4	0
93	Coulomb blockade electrometer based on single Cooper pair tunneling. <i>Applied Superconductivity</i> , 1998, 6, 453-458.	0.5	0
94	Possibility of Single-Electron Devices and Superconducting Coherence. , 2002, , 97-103.		0
95	Tunnel spectroscopy of small Al particle. <i>Physica E: Low-Dimensional Systems and Nanostructures</i> , 2003, 18, 19-20.	1.3	0
96	Coupled Josephson quantum bits. , 2004, , .		0
97	RECENT RESULTS IN EXPERIMENTS WITH JOSEPHSON QUBITS. <i>International Journal of Quantum Information</i> , 2005, 03, 173-196.	0.6	0
98	Quantum coherent dynamics of two coupled superconducting charge qubits. , 2005, , .		0
99	Hybrid single-electron turnstile - Towards a quantum standard of electric current. , 2010, , .		0
100	Suspended single-electron transistor as a detector of its nanomechanical motion. , 2010, , .		0
101	Radio-frequency transport of single electrons in superconductor-normal-metal tunnel junctions and the quantum metrological triangle. , 2011, , .		0
102	Single-electron devices with a mechanical degree of freedom. <i>Journal of Physics: Conference Series</i> , 2012, 400, 052028.	0.3	0
103	Measurement and control of single-photon microwave radiation on chip. , 2014, , .		0
104	Towards measurement and control of single-photon microwave radiation on chip. , 2015, , .		0
105	QUANTUM-STATE MANIPULATIONS IN A COOPER-PAIR BOX. , 2002, , .		0
106	Coherent Manipulations of Charge-Number States in a Cooper-Pair Box. , 2003, , .		0