Miroslav Grajcar

List of Publications by Year
in descending order

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104	2,629	172457	197818
papers	citations	29 h-index	49 g-index

107	107	107	1638
all docs	docs citations	times ranked	citing authors

#	Article	IF	Citations
1	Finite-quasiparticle-lifetime effects in the differential conductance ofBi2Sr2CaCu2Oy/Au junctions. Physical Review B, 1994, 49, 10016-10019.	3.2	192
2	Controllable Coupling of Superconducting Flux Qubits. Physical Review Letters, 2007, 98, 057004.	7.8	170
3	Degenerate Ground State in a MesoscopicYBa2Cu3O7â^'xGrain Boundary Josephson Junction. Physical Review Letters, 2001, 86, 5369-5372.	7.8	163
4	Evidence for Entangled States of Two Coupled Flux Qubits. Physical Review Letters, 2004, 93, 037003.	7.8	142
5	Continuous Monitoring of Rabi Oscillations in a Josephson Flux Qubit. Physical Review Letters, 2003, 91, 097906.	7.8	136
6	Sisyphus cooling and amplification by a superconducting qubit. Nature Physics, 2008, 4, 612-616.	16.7	105
7	Consistency of Ground State and Spectroscopic Measurements on Flux Qubits. Physical Review Letters, 2008, 101, 017003.	7.8	80
8	Anomalous periodicity of the current-phase relationship of grain-boundary Josephson junctions in high-Tcsuperconductors. Physical Review B, 1999, 60, 3096-3099.	3.2	72
9	A Characterization of Global Entanglement. Quantum Information Processing, 2007, 6, 187-195.	2.2	72
10	Four-Qubit Device with Mixed Couplings. Physical Review Letters, 2006, 96, 047006.	7.8	70
11	Low-frequency measurement of the tunneling amplitude in a flux qubit. Physical Review B, 2004, 69, .	3.2	62
12	Switchable resonant coupling of flux qubits. Physical Review B, 2006, 74, .	3.2	61
13	Observation of macroscopic Landau-Zener transitions in a superconducting device. Europhysics Letters, 2004, 65, 844-849.	2.0	60
14	Low-frequency characterization of quantum tunneling in flux qubits. Physical Review B, 2002, 66, .	3.2	58
15	Direct Josephson coupling between superconducting flux qubits. Physical Review B, 2005, 72, .	3.2	50
16	Dressed-State Amplification by a Single Superconducting Qubit. Physical Review Letters, 2013, 110, 053602.	7.8	49
17	Low noise, low power consumption high electron mobility transistors amplifier, for temperatures below 1 K. Review of Scientific Instruments, 2003, 74, 1145-1146.	1.3	48
18	Lower limit on the achievable temperature in resonator-based sideband cooling. Physical Review B, 2008, 78, .	3.2	46

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19	Possible implementation of adiabatic quantum algorithm with superconducting flux qubits. Physical Review B, 2005, 71, .	3.2	44
20	Detection of Weak Microwave Fields with an Underdamped Josephson Junction. Physical Review Applied, 2017, 7, .	3.8	44
21	Reading out the state inductively and microwave spectroscopy of an interferometer-type charge qubit. Physical Review B, 2004, 70, .	3.2	39
22	Radio-frequency method for investigation of quantum properties of superconducting structures. Low Temperature Physics, 2004, 30, 620-628.	0.6	39
23	Observation of the second harmonic in superconducting current-phase relation of Nb/Au/(001)YBa 2 Cu 3 O x heterojunctions. Europhysics Letters, 2002, 57, 585-591.	2.0	38
24	Weak continuous monitoring of a flux qubit using coplanar waveguide resonator. Physical Review B, 2010, 81, .	3.2	38
25	Fermionic scenario for the destruction of superconductivity in ultrathin MoC films evidenced by STM measurements. Physical Review B, 2016, 93, .	3.2	34
26	Characterization of superconducting structures designed for qubit realizations. Applied Physics Letters, 2002, 80, 4184-4186.	3.3	33
27	Resonant excitations of single and two-qubit systems coupled to a tank circuit. Physical Review B, 2008, 78, .	3.2	33
28	Amplification and attenuation of a probe signal by doubly dressed states. Physical Review B, 2014, 89, .	3.2	33
29	Phase-coherent charge transport in superconducting heterocontacts. Physical Review B, 1999, 59, 9617-9626.	3.2	30
30	Landau-Zener-StÃ¼ckelberg-Majorana lasing in circuit quantum electrodynamics. Physical Review B, 2016, 94, .	3.2	29
31	Method for direct observation of coherent quantum oscillations in a superconducting phase qubit. Physical Review B, 2002, 66, .	3.2	23
32	Superconducting gap parameters of MgB2 obtained on MgB2/Ag and MgB2/In junctions. Physica C: Superconductivity and Its Applications, 2002, 368, 251-254.	1.2	22
33	Cryogenic ultra-low-noise SiGe transistor amplifier. Review of Scientific Instruments, 2011, 82, 104705.	1.3	22
34	Finite quasiparticle lifetime in disordered superconductors. Physical Review B, 2015, 92, .	3.2	21
35	The energy gap depression in YBa2Cu3O7â^'x/metal contacts. Solid State Communications, 1991, 78, 809-813.	1.9	20
36	Influence of bias voltage history on conductance properties of YBaCuO/normal metal junctions. Physica C: Superconductivity and Its Applications, 1998, 301, 234-242.	1.2	20

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37	Parametric amplification by coupled flux qubits. Applied Physics Letters, 2014, 104, 162604.	3.3	19
38	Influence of inelastic effects on differential conductance of a high-Tcsuperconductor/metal junction. Physical Review B, 1995, 51, 16185-16189.	3.2	18
39	Dynamic features of a charge qubit closed by a superconducting inductive ring. Physics Letters, Section A: General, Atomic and Solid State Physics, 2002, 303, 352-357.	2.1	18
40	How to test the Ã¢â‚¬Å“quantumnessÃ¢â‚¬Â•of a quantum computer?. Frontiers in Physics, 2014, 2, .	2.1	18
41	Multiphoton excitations and inverse population in a system of two flux qubits. Physical Review B, 2010, 81, .	3.2	17
42	Surface degradation of YBa2Cu3O7âˆ’Î´ observed by means of contact resistance measurement. Solid State Communications, 1992, 81, 191-194.	1.9	16
43	Measurement of the ground-state flux diagram of three coupled qubits as a first step towards the demonstration of adiabatic quantum computation. Europhysics Letters, 2006, 76, 533-539.	2.0	16
44	Time evolution of point contact resistances of high-Tc superconductors. Physica C: Superconductivity and Its Applications, 1993, 218, 82-86.	1.2	15
45	Selective amplification of a quantum state. Physical Review A, 2004, 70, .	2.5	15
46	Photoinduced insulatorâ€“metal transition in La0.81MnO3/Al2O3/Nb tunnel junctions. Applied Physics Letters, 2001, 78, 1712-1714.	3.3	14
47	Realization of a classical counterpart of a scalable design for adiabatic quantum computation. Applied Physics Letters, 2007, 90, 022501.	3.3	14
48	A microwave cryogenic low-noise amplifier based on sige heterostructures. Technical Physics Letters, 2016, 42, 380-383.	0.7	14
49	Asymmetry and quasilinear background of differential conductance characteristics of high-Tc-superconductor/metal tunnel junctions. Physical Review B, 1997, 55, 11738-11744.	3.2	12
50	Supercurrent-phase relationship of aNbâˆ•InAs(2DES)âˆ•NbJosephson junction in overlapping geometry. Physical Review B, 2005, 71, .	3.2	12
51	Adiabatic Quantum Computation With Flux Qubits, First Experimental Results. IEEE Transactions on Applied Superconductivity, 2007, 17, 113-119.	1.7	12
52	Simulating long-distance entanglement in quantum spin chains by superconducting flux qubits. Physical Review A, 2015, 91, .	2.5	12
53	Two-photon lasing by a superconducting qubit. Physical Review B, 2015, 91, .	3.2	12
54	Experimental system design for the integration of trapped-ion and superconducting qubit systems. Quantum Information Processing, 2016, 15, 5385-5414.	2.2	12

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55	Modification of YBa2Cu3O7âˆ’Î´-Au point contact interface properties by applied electric voltage. Physica B: Condensed Matter, 1996, 218, 209-212.	2.7	10
56	Supercurrentâ€“phase relation of a Nb/InAs(2DEG)/Nb Josephson junction. Physica C: Superconductivity and Its Applications, 2002, 372-376, 27-30.	1.2	10
57	Superconducting MoC thin films with enhanced sheet resistance. Applied Surface Science, 2014, 312, 216-219.	6.1	10
58	Weak continuous measurements of multiqubits systems. Quantum Information Processing, 2009, 8, 133-153.	2.2	9
59	High Q value Quartz Tuning Fork in Vacuum as a Potential Thermometer in Millikelvin Temperature Range. Journal of Low Temperature Physics, 2017, 187, 573-579.	1.4	9
60	Paramagnetic effect inYBa2Cu3O7âˆ’xgrain-boundary junctions. Physical Review B, 2003, 68, .	3.2	8
61	Superconducting parameters of YBCO and BSCCO from â€˜tunnelingâ€™ spectroscopy. Physica B: Condensed Matter, 1996, 218, 224-227.	2.7	7
62	Asymmetric double-barrier Sâ€“I1â€“Nâ€“I2â€“S Josephson heterojunctions: experiment and theory. Physica C: Superconductivity and Its Applications, 2001, 350, 187-192.	1.2	7
63	Ferromagnetic resonance study of sputtered Pt/Co/Pt multilayers. Applied Surface Science, 2018, 461, 202-205.	6.1	6
64	On the origin of in-gap states in homogeneously disordered ultrathin films. MoC case. Applied Surface Science, 2018, 461, 143-148.	6.1	6
65	Supercurrent-phase relation of anNb/AlOx/Al/AlOx/Nb-based Josephson junction at the superconducting transition of the Al Interlayer. Physical Review B, 2000, 62, R14645-R14648.	3.2	5
66	Temperature-dependent transport characteristics of quasiballistic normal-metalâ€“superconductor junctions. Physical Review B, 2000, 61, 3259-3262.	3.2	5
67	Microfabricated oscillator for radio-frequency microscopy with integrated magnetic field concentrator. Review of Scientific Instruments, 2003, 74, 1282-1284.	1.3	5
68	Quantum Dynamics of the Interferometer-Type Charge Qubit Under Microwave Irradiation. IEEE Transactions on Applied Superconductivity, 2005, 15, 876-879.	1.7	5
69	Observation of quantum corrections to conductivity up to optical frequencies. Physical Review B, 2019, 100, .	3.2	5
70	Influence of illumination on the properties of Bi2Sr2CaCu2O8+y bicrystal grain boundary junction. Applied Physics Letters, 1999, 74, 3869-3871.	3.3	4
71	Temperature effect on the quasiparticle spectrum of an impurity-doped superconductor with two separate electron groups. Physical Review B, 2005, 72, .	3.2	4
72	Superconducting MgB2 weak links and superconducting quantum interference devices prepared by AFM nanolithography. Physica C: Superconductivity and Its Applications, 2008, 468, 789-792.	1.2	4

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73	Resonance features of coupled Josephson junctions: radiation and shunting. Journal of Physics: Conference Series, 2012, 393, 012020.	0.4	4
74	Charge transport across a mesoscopic superconductorâ€“normal metal junction: coherence and decoherence effects. Physica C: Superconductivity and Its Applications, 2001, 357-360, 1592-1595.	1.2	3
75	Superconducting transport properties of YBCO grain boundary Josephson junctions. Physica C: Superconductivity and Its Applications, 2002, 368, 267-270.	1.2	3
76	MgB2 radio-frequency superconducting quantum interference device prepared by atomic force microscope lithography. Applied Physics Letters, 2007, 91, 122502.	3.3	3
77	Cryogenic low noise 2.2â€“3GHz amplifier. Cryogenics, 2012, 52, 362-365.	1.7	3
78	A microwave splitter for superconducting quantum circuits. Technical Physics Letters, 2015, 41, 314-316.	0.7	3
79	Study of point contacts with Au-tip on YBa2Cu3Ox and Bi2Sr2CaCu2Oy thin films. Physica B: Condensed Matter, 1994, 194-196, 2415-2416.	2.7	2
80	Peculiarities of â€˜tunnelingâ€™ characteristics observed in HTS/metal point contact junctions. Physica C: Superconductivity and Its Applications, 1997, 282-287, 1481-1482.	1.2	2
81	Dephasing effects in superconducting heterojunctions: a crossover from coherent to sequential transmission. Physica C: Superconductivity and Its Applications, 2002, 367, 218-221.	1.2	2
82	Publisher's Note: Evidence for Entangled States of Two Coupled Flux Qubits [Phys. Rev. Lett.93, 037003 (2004)]. Physical Review Letters, 2004, 93, .	7.8	2
83	Vortex Avalanches Induced by Single High-Frequency Pulses inÂMgB2 Films. Journal of Superconductivity and Novel Magnetism, 2011, 24, 395-400.	1.8	2
84	Origin of linear background measured on YBaCuO-Au point contact junctions. European Physical Journal D, 1996, 46, 1333-1334.	0.4	1
85	Bias voltage asymmetry of inelastic differential conductivity of HTS/metal tunnel junctions. European Physical Journal D, 1996, 46, 1017-1018.	0.4	1
86	The influence of external bias voltage on electrical properties of YBa2Cu3O7â^'x/metal point contact interface. Journal of Low Temperature Physics, 1997, 106, 277-283.	1.4	1
87	Influence of degraded surface layer of HTS on differential conductance of HTS/metal junctions. , 1998, 3480, 67.		1
88	Screw dislocation-induced enhancement of the c-axis critical current in anisotropic superconductors. Physica C: Superconductivity and Its Applications, 2000, 329, 5-11.	1.2	1
89	Superconducting currentâ€“phase relation of Nb/Au/() YBaCuO heterojunctions. Physica C: Superconductivity and Its Applications, 2002, 368, 271-275.	1.2	1
90	Superconducting tunnel junction structures designed for qubit realizations. IEEE Transactions on Applied Superconductivity, 2003, 13, 1013-1016.	1.7	1

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91	Superconducting properties of magnesium diboride thin film measured by using coplanar waveguide resonator. Applied Surface Science, 2014, 312, 231-234.	6.1	1
92	Numerical extrapolation method for complex conductivity of disordered metals. Physical Review B, 2021, 103, .	3.2	1
93	Tunneling and Point Contact Spectroscopy of High-T_cSuperconducting Thin Films. Acta Physica Polonica A, 1998, 93, 355-363.	0.5	1
94	Investigation of Complex Conductivity of Strongly Disordered Superconducting Films by Broadband Flip-Chip Transmission Line Technique. Acta Physica Polonica A, 2020, 137, 797-799.	0.5	1
95	Point contact investigation on Bi2Sr2CaCu2O8+y thin films. Journal of Superconductivity and Novel Magnetism, 1995, 8, 643-644.	0.5	0
96	The influence of bias voltage on YBa2Cu3O7â^'x/metal point contact interface. Journal of Alloys and Compounds, 1997, 251, 129-133.	5.5	0
97	Current-phase relation in Nb-Al based SINIS-type Josephson junctions. IEEE Transactions on Applied Superconductivity, 2001, 11, 1142-1145.	1.7	0
98	Dynamic features of the phase-biased single-cooper-pair transistor. IEEE Transactions on Applied Superconductivity, 2003, 13, 934-937.	1.7	0
99	Fabrication and Measurement of Aluminum and Niobium Based Single-Electron Transistors and Charge Qubits. , 2005, , 266-276.		0
100	Superconductivity Near Transition to Insulating State in MoC Ultrathin Films Studied by Subkelvin STM. Acta Physica Polonica A, 2014, 126, 368-369.	0.5	0
101	Gaplessness and the Coulomb anomaly in the strongly disordered films of molybdenum carbide. AIP Conference Proceedings, 2016, , .	0.4	0
102	Study of optical conductivity of highly disordered MoC films by spectroscopic ellipsometry. AIP Conference Proceedings, 2021, , .	0.4	0
103	Transmission based characterisation of superconducting metamaterial. AIP Conference Proceedings, 2021, , .	0.4	0
104	Superconducting planar filter design. AIP Conference Proceedings, 2021, , .	0.4	0