

Miroslav Grajcar

List of Publications by Year in descending order

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104
papers

2,629
citations

196777

29
h-index

223390

49
g-index

107
all docs

107
docs citations

107
times ranked

1760
citing authors

#	ARTICLE	IF	CITATIONS
1	Numerical extrapolation method for complex conductivity of disordered metals. Physical Review B, 2021, 103, .	1.1	1
2	Study of optical conductivity of highly disordered MoC films by spectroscopic ellipsometry. AIP Conference Proceedings, 2021, , .	0.3	0
3	Transmission based characterisation of superconducting metamaterial. AIP Conference Proceedings, 2021, , .	0.3	0
4	Superconducting planar filter design. AIP Conference Proceedings, 2021, , .	0.3	0
5	Investigation of Complex Conductivity of Strongly Disordered Superconducting Films by Broadband Flip-Chip Transmission Line Technique. Acta Physica Polonica A, 2020, 137, 797-799.	0.2	1
6	Observation of quantum corrections to conductivity up to optical frequencies. Physical Review B, 2019, 100, .	1.1	5
7	Ferromagnetic resonance study of sputtered Pt/Co/Pt multilayers. Applied Surface Science, 2018, 461, 202-205.	3.1	6
8	On the origin of in-gap states in homogeneously disordered ultrathin films. MoC case. Applied Surface Science, 2018, 461, 143-148.	3.1	6
9	Detection of Weak Microwave Fields with an Underdamped Josephson Junction. Physical Review Applied, 2017, 7, .	1.5	44
10	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.	0.6	9
11	Gaplessness and the Coulomb anomaly in the strongly disordered films of molybdenum carbide. AIP Conference Proceedings, 2016, , .	0.3	0
12	Experimental system design for the integration of trapped-ion and superconducting qubit systems. Quantum Information Processing, 2016, 15, 5385-5414.	1.0	12
13	Landau-Zener-Stückelberg-Majorana lasing in circuit quantum electrodynamics. Physical Review B, 2016, 94, .	1.1	29
14	Fermionic scenario for the destruction of superconductivity in ultrathin MoC films evidenced by STM measurements. Physical Review B, 2016, 93, .	1.1	34
15	A microwave cryogenic low-noise amplifier based on sige heterostructures. Technical Physics Letters, 2016, 42, 380-383.	0.2	14
16	Finite quasiparticle lifetime in disordered superconductors. Physical Review B, 2015, 92, .	1.1	21
17	Simulating long-distance entanglement in quantum spin chains by superconducting flux qubits. Physical Review A, 2015, 91, .	1.0	12
18	A microwave splitter for superconducting quantum circuits. Technical Physics Letters, 2015, 41, 314-316.	0.2	3

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19	Two-photon lasing by a superconducting qubit. <i>Physical Review B</i> , 2015, 91, .	1.1	12
20	How to test the “quantumness” of a quantum computer?. <i>Frontiers in Physics</i> , 2014, 2, .	1.0	18
21	Superconductivity Near Transition to Insulating State in MoC Ultrathin Films Studied by Subkelvin STM. <i>Acta Physica Polonica A</i> , 2014, 126, 368-369.	0.2	0
22	Amplification and attenuation of a probe signal by doubly dressed states. <i>Physical Review B</i> , 2014, 89, .	1.1	33
23	Parametric amplification by coupled flux qubits. <i>Applied Physics Letters</i> , 2014, 104, 162604.	1.5	19
24	Superconducting MoC thin films with enhanced sheet resistance. <i>Applied Surface Science</i> , 2014, 312, 216-219.	3.1	10
25	Superconducting properties of magnesium diboride thin film measured by using coplanar waveguide resonator. <i>Applied Surface Science</i> , 2014, 312, 231-234.	3.1	1
26	Dressed-State Amplification by a Single Superconducting Qubit. <i>Physical Review Letters</i> , 2013, 110, 053602.	2.9	49
27	Resonance features of coupled Josephson junctions: radiation and shunting. <i>Journal of Physics: Conference Series</i> , 2012, 393, 012020.	0.3	4
28	Cryogenic low noise 2.2–3GHz amplifier. <i>Cryogenics</i> , 2012, 52, 362-365.	0.9	3
29	Vortex Avalanches Induced by Single High-Frequency Pulses in MgB ₂ Films. <i>Journal of Superconductivity and Novel Magnetism</i> , 2011, 24, 395-400.	0.8	2
30	Cryogenic ultra-low-noise SiGe transistor amplifier. <i>Review of Scientific Instruments</i> , 2011, 82, 104705.	0.6	22
31	Multiphoton excitations and inverse population in a system of two flux qubits. <i>Physical Review B</i> , 2010, 81, .	1.1	17
32	Weak continuous monitoring of a flux qubit using coplanar waveguide resonator. <i>Physical Review B</i> , 2010, 81, .	1.1	38
33	Weak continuous measurements of multiqubits systems. <i>Quantum Information Processing</i> , 2009, 8, 133-153.	1.0	9
34	Superconducting MgB ₂ weak links and superconducting quantum interference devices prepared by AFM nanolithography. <i>Physica C: Superconductivity and Its Applications</i> , 2008, 468, 789-792.	0.6	4
35	Sisyphus cooling and amplification by a superconducting qubit. <i>Nature Physics</i> , 2008, 4, 612-616.	6.5	105
36	Consistency of Ground State and Spectroscopic Measurements on Flux Qubits. <i>Physical Review Letters</i> , 2008, 101, 017003.	2.9	80

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37	Resonant excitations of single and two-qubit systems coupled to a tank circuit. <i>Physical Review B</i> , 2008, 78, .	1.1	33
38	Lower limit on the achievable temperature in resonator-based sideband cooling. <i>Physical Review B</i> , 2008, 78, .	1.1	46
39	Controllable Coupling of Superconducting Flux Qubits. <i>Physical Review Letters</i> , 2007, 98, 057004.	2.9	170
40	MgB2 radio-frequency superconducting quantum interference device prepared by atomic force microscope lithography. <i>Applied Physics Letters</i> , 2007, 91, 122502.	1.5	3
41	Realization of a classical counterpart of a scalable design for adiabatic quantum computation. <i>Applied Physics Letters</i> , 2007, 90, 022501.	1.5	14
42	Adiabatic Quantum Computation With Flux Qubits, First Experimental Results. <i>IEEE Transactions on Applied Superconductivity</i> , 2007, 17, 113-119.	1.1	12
43	A Characterization of Global Entanglement. <i>Quantum Information Processing</i> , 2007, 6, 187-195.	1.0	72
44	Measurement of the ground-state flux diagram of three coupled qubits as a first step towards the demonstration of adiabatic quantum computation. <i>Europhysics Letters</i> , 2006, 76, 533-539.	0.7	16
45	Switchable resonant coupling of flux qubits. <i>Physical Review B</i> , 2006, 74, .	1.1	61
46	Four-Qubit Device with Mixed Couplings. <i>Physical Review Letters</i> , 2006, 96, 047006.	2.9	70
47	Fabrication and Measurement of Aluminum and Niobium Based Single-Electron Transistors and Charge Qubits. , 2005, , 266-276.		0
48	Temperature effect on the quasiparticle spectrum of an impurity-doped superconductor with two separate electron groups. <i>Physical Review B</i> , 2005, 72, .	1.1	4
49	Supercurrent-phase relationship of a Nb ^s /InAs(2DES)/Nb Josephson junction in overlapping geometry. <i>Physical Review B</i> , 2005, 71, .	1.1	12
50	Direct Josephson coupling between superconducting flux qubits. <i>Physical Review B</i> , 2005, 72, .	1.1	50
51	Quantum Dynamics of the Interferometer-Type Charge Qubit Under Microwave Irradiation. <i>IEEE Transactions on Applied Superconductivity</i> , 2005, 15, 876-879.	1.1	5
52	Possible implementation of adiabatic quantum algorithm with superconducting flux qubits. <i>Physical Review B</i> , 2005, 71, .	1.1	44
53	Reading out the state inductively and microwave spectroscopy of an interferometer-type charge qubit. <i>Physical Review B</i> , 2004, 70, .	1.1	39
54	Low-frequency measurement of the tunneling amplitude in a flux qubit. <i>Physical Review B</i> , 2004, 69, .	1.1	62

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55	Publisher's Note: Evidence for Entangled States of Two Coupled Flux Qubits [Phys. Rev. Lett.93, 037003 (2004)]. Physical Review Letters, 2004, 93, .	2.9	2
56	Selective amplification of a quantum state. Physical Review A, 2004, 70, .	1.0	15
57	Observation of macroscopic Landau-Zener transitions in a superconducting device. Europhysics Letters, 2004, 65, 844-849.	0.7	60
58	Evidence for Entangled States of Two Coupled Flux Qubits. Physical Review Letters, 2004, 93, 037003.	2.9	142
59	Radio-frequency method for investigation of quantum properties of superconducting structures. Low Temperature Physics, 2004, 30, 620-628.	0.2	39
60	Low noise, low power consumption high electron mobility transistors amplifier, for temperatures below 1 K. Review of Scientific Instruments, 2003, 74, 1145-1146.	0.6	48
61	Microfabricated oscillator for radio-frequency microscopy with integrated magnetic field concentrator. Review of Scientific Instruments, 2003, 74, 1282-1284.	0.6	5
62	Superconducting tunnel junction structures designed for qubit realizations. IEEE Transactions on Applied Superconductivity, 2003, 13, 1013-1016.	1.1	1
63	Continuous Monitoring of Rabi Oscillations in a Josephson Flux Qubit. Physical Review Letters, 2003, 91, 097906.	2.9	136
64	Paramagnetic effect in YBa ₂ Cu ₃ O _{7-δ} grain-boundary junctions. Physical Review B, 2003, 68, .	1.1	8
65	Dynamic features of the phase-biased single-cooper-pair transistor. IEEE Transactions on Applied Superconductivity, 2003, 13, 934-937.	1.1	0
66	Characterization of superconducting structures designed for qubit realizations. Applied Physics Letters, 2002, 80, 4184-4186.	1.5	33
67	Method for direct observation of coherent quantum oscillations in a superconducting phase qubit. Physical Review B, 2002, 66, .	1.1	23
68	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.	0.7	38
69	Low-frequency characterization of quantum tunneling in flux qubits. Physical Review B, 2002, 66, .	1.1	58
70	Dephasing effects in superconducting heterojunctions: a crossover from coherent to sequential transmission. Physica C: Superconductivity and Its Applications, 2002, 367, 218-221.	0.6	2
71	Superconducting gap parameters of MgB ₂ obtained on MgB ₂ /Ag and MgB ₂ /In junctions. Physica C: Superconductivity and Its Applications, 2002, 368, 251-254.	0.6	22
72	Superconducting transport properties of YBCO grain boundary Josephson junctions. Physica C: Superconductivity and Its Applications, 2002, 368, 267-270.	0.6	3

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73	Superconducting current-phase relation of Nb/Au/(λ) YBaCuO heterojunctions. Physica C: Superconductivity and Its Applications, 2002, 368, 271-275.	0.6	1
74	Supercurrent-phase relation of a Nb/InAs(2DEG)/Nb Josephson junction. Physica C: Superconductivity and Its Applications, 2002, 372-376, 27-30.	0.6	10
75	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.	0.9	18
76	Photoinduced insulator-metal transition in La _{0.81} MnO ₃ /Al ₂ O ₃ /Nb tunnel junctions. Applied Physics Letters, 2001, 78, 1712-1714.	1.5	14
77	Asymmetric double-barrier λ - λ Josephson heterojunctions: experiment and theory. Physica C: Superconductivity and Its Applications, 2001, 350, 187-192.	0.6	7
78	Charge transport across a mesoscopic superconductor-normal metal junction: coherence and decoherence effects. Physica C: Superconductivity and Its Applications, 2001, 357-360, 1592-1595.	0.6	3
79	Current-phase relation in Nb-Al based SINIS-type Josephson junctions. IEEE Transactions on Applied Superconductivity, 2001, 11, 1142-1145.	1.1	0
80	Degenerate Ground State in a Mesoscopic YBa ₂ Cu ₃ O _{7-x} Grain Boundary Josephson Junction. Physical Review Letters, 2001, 86, 5369-5372.	2.9	163
81	Screw dislocation-induced enhancement of the c-axis critical current in anisotropic superconductors. Physica C: Superconductivity and Its Applications, 2000, 329, 5-11.	0.6	1
82	Supercurrent-phase relation of an Nb/AlO _x /Al/AlO _x /Nb-based Josephson junction at the superconducting transition of the Al Interlayer. Physical Review B, 2000, 62, R14645-R14648.	1.1	5
83	Temperature-dependent transport characteristics of quasiballistic normal-metal-superconductor junctions. Physical Review B, 2000, 61, 3259-3262.	1.1	5
84	Anomalous periodicity of the current-phase relationship of grain-boundary Josephson junctions in high-T _c superconductors. Physical Review B, 1999, 60, 3096-3099.	1.1	72
85	Influence of illumination on the properties of Bi ₂ Sr ₂ CaCu ₂ O _{8+y} bicrystal grain boundary junction. Applied Physics Letters, 1999, 74, 3869-3871.	1.5	4
86	Phase-coherent charge transport in superconducting heterocontacts. Physical Review B, 1999, 59, 9617-9626.	1.1	30
87	Influence of bias voltage history on conductance properties of YBaCuO/normal metal junctions. Physica C: Superconductivity and Its Applications, 1998, 301, 234-242.	0.6	20
88	Influence of degraded surface layer of HTS on differential conductance of HTS/metal junctions. , 1998, 3480, 67.		1
89	Tunneling and Point Contact Spectroscopy of High-T _c Superconducting Thin Films. Acta Physica Polonica A, 1998, 93, 355-363.	0.2	1
90	Asymmetry and quasilinear background of differential conductance characteristics of high-T _c -superconductor/metal tunnel junctions. Physical Review B, 1997, 55, 11738-11744.	1.1	12

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91	The influence of bias voltage on YBa ₂ Cu ₃ O _{7-x} /metal point contact interface. Journal of Alloys and Compounds, 1997, 251, 129-133.	2.8	0
92	The influence of external bias voltage on electrical properties of YBa ₂ Cu ₃ O _{7-x} /metal point contact interface. Journal of Low Temperature Physics, 1997, 106, 277-283.	0.6	1
93	Peculiarities of $\tilde{\text{tunneling}}^{\text{TM}}$ characteristics observed in HTS/metal point contact junctions. Physica C: Superconductivity and Its Applications, 1997, 282-287, 1481-1482.	0.6	2
94	Origin of linear background measured on YBaCuO-Au point contact junctions. European Physical Journal D, 1996, 46, 1333-1334.	0.4	1
95	Bias voltage asymmetry of inelastic differential conductivity of HTS/metal tunnel junctions. European Physical Journal D, 1996, 46, 1017-1018.	0.4	1
96	Modification of YBa ₂ Cu ₃ O _{7-x} -Au point contact interface properties by applied electric voltage. Physica B: Condensed Matter, 1996, 218, 209-212.	1.3	10
97	Superconducting parameters of YBCO and BSCCO from $\tilde{\text{tunneling}}^{\text{TM}}$ spectroscopy. Physica B: Condensed Matter, 1996, 218, 224-227.	1.3	7
98	Point contact investigation on Bi ₂ Sr ₂ CaCu ₂ O _{8+y} thin films. Journal of Superconductivity and Novel Magnetism, 1995, 8, 643-644.	0.5	0
99	Influence of inelastic effects on differential conductance of a high-T _c superconductor/metal junction. Physical Review B, 1995, 51, 16185-16189.	1.1	18
100	Finite-quasiparticle-lifetime effects in the differential conductance of Bi ₂ Sr ₂ CaCu ₂ O _y /Au junctions. Physical Review B, 1994, 49, 10016-10019.	1.1	192
101	Study of point contacts with Au-tip on YBa ₂ Cu ₃ O _x and Bi ₂ Sr ₂ CaCu ₂ O _y thin films. Physica B: Condensed Matter, 1994, 194-196, 2415-2416.	1.3	2
102	Time evolution of point contact resistances of high-T _c superconductors. Physica C: Superconductivity and Its Applications, 1993, 218, 82-86.	0.6	15
103	Surface degradation of YBa ₂ Cu ₃ O _{7-x} observed by means of contact resistance measurement. Solid State Communications, 1992, 81, 191-194.	0.9	16
104	The energy gap depression in YBa ₂ Cu ₃ O _{7-x} /metal contacts. Solid State Communications, 1991, 78, 809-813.	0.9	20