

Maxim G Vavilov

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.

76
papers

2,548
citations

28
h-index

49
g-index

80
ext. papers

2,902
ext. citations

4.2
avg, IF

5.26
L-index

#	Paper	IF	Citations
76	Fast Logic with Slow Qubits: Microwave-Activated Controlled-Z Gate on Low-Frequency Fluxoniums. <i>Physical Review X</i> , 2021 , 11,	9.1	3
75	Proposal for Entangling Gates on Fluxonium Qubits via a Two-Photon Transition. <i>PRX Quantum</i> , 2021 , 2,	6.1	2
74	Impacts of random filling on spin squeezing via Rydberg dressing in optical clocks. <i>Physical Review A</i> , 2021 , 103,	2.6	1
73	Majorana bound states in nanowire-superconductor hybrid systems in periodic magnetic fields. <i>Physical Review B</i> , 2020 , 101,	3.3	3
72	Response of a quantum disordered spin system to a local periodic drive. <i>Physical Review B</i> , 2020 , 101,	3.3	1
71	Multiterminal Josephson Effect. <i>Physical Review X</i> , 2020 , 10,	9.1	12
70	A tunable quantum dissipator for active resonator reset in circuit QED. <i>Quantum Science and Technology</i> , 2019 , 4, 025001	5.5	8
69	Hardware-Efficient Qubit Control with Single-Flux-Quantum Pulse Sequences. <i>Physical Review Applied</i> , 2019 , 12,	4.3	13
68	Evanescent-wave Johnson noise in small devices. <i>Quantum Science and Technology</i> , 2018 , 3, 015001	5.5	2
67	Weyl nodes in Andreev spectra of multiterminal Josephson junctions: Chern numbers, conductances, and supercurrents. <i>Physical Review B</i> , 2018 , 97,	3.3	19
66	Quantum-classical interface based on single flux quantum digital logic. <i>Quantum Science and Technology</i> , 2018 , 3, 024004	5.5	55
65	Optimizing microwave photodetection: input-output theory. <i>Quantum Science and Technology</i> , 2018 , 3, 024009	5.5	8
64	Josephson currents in chaotic quantum dots. <i>Physical Review B</i> , 2018 , 97,	3.3	2
63	Phonon-induced decoherence of a charge quadrupole qubit. <i>New Journal of Physics</i> , 2018 , 20, 103048	2.9	5
62	Steering random spin systems to speed up the quantum adiabatic algorithm. <i>Physical Review A</i> , 2018 , 98,	2.6	10
61	Microwave-activated controlled-Z gate for fixed-frequency fluxonium qubits. <i>Physical Review A</i> , 2018 , 98,	2.6	7
60	Measurement of a superconducting qubit with a microwave photon counter. <i>Science</i> , 2018 , 361, 1239-1242,	39.3	36

59	Controlled-Z gate for transmon qubits coupled by semiconductor junctions. <i>Physical Review B</i> , 2018 , 97,	3.3	8
58	Quantum efficiency of a single microwave photon detector based on a semiconductor double quantum dot. <i>Physical Review A</i> , 2017 , 95,	2.6	17
57	Response to a local quench of a system near the many-body localization transition. <i>Physical Review B</i> , 2017 , 95,	3.3	2
56	Effects of charge noise on a pulse-gated singlet-triplet S \square qubit. <i>Physical Review B</i> , 2017 , 96,	3.3	7
55	Topological Andreev bands in three-terminal Josephson junctions. <i>Physical Review B</i> , 2017 , 96,	3.3	28
54	Phonon-mediated quasiparticle poisoning of superconducting microwave resonators. <i>Physical Review B</i> , 2017 , 96,	3.3	29
53	Scalable two- and four-qubit parity measurement with a threshold photon counter. <i>Physical Review A</i> , 2015 , 92,	2.6	10
52	Magnetic penetration depth in disordered iron-based superconductors. <i>Physical Review B</i> , 2015 , 92,	3.3	7
51	Nonuniversal weak antilocalization effect in cubic topological Kondo insulators. <i>Physical Review B</i> , 2015 , 92,	3.3	5
50	Nonadiabatic dynamics of a slowly driven dissipative two-level system. <i>Physical Review A</i> , 2014 , 89,	2.6	26
49	Electromagnetic fluctuations near thin metallic films. <i>Physical Review B</i> , 2014 , 89,	3.3	9
48	High-fidelity qubit measurement with a microwave-photon counter. <i>Physical Review A</i> , 2014 , 90,	2.6	26
47	Effect of spin-density wave fluctuations on the specific heat jump in iron pnictides at the superconducting transition. <i>Physical Review B</i> , 2014 , 89,	3.3	6
46	Enhancement of the London penetration depth in pnictides at the onset of spin-density-wave order under superconducting dome. <i>Physical Review Letters</i> , 2013 , 110, 177003	7.4	38
45	Relaxation in quantum dots due to evanescent-wave Johnson noise. <i>Physical Review B</i> , 2013 , 87,	3.3	13
44	Full counting statistics of photons emitted by a double quantum dot. <i>Physical Review B</i> , 2013 , 88,	3.3	25
43	Quantum photovoltaic effect in double quantum dots. <i>Physical Review B</i> , 2013 , 87,	3.3	20
42	Magnetic penetration depth in the presence of a spin-density wave in multiband superconductors at zero temperature. <i>Superconductor Science and Technology</i> , 2012 , 25, 084001	3.1	8

41	Enhancement of T_c by disorder in underdoped iron pnictide superconductors. <i>Physical Review B</i> , 2012 , 85,	3.3	60
40	Quantum efficiency of a microwave photon detector based on a current-biased Josephson junction. <i>Physical Review B</i> , 2012 , 86,	3.3	32
39	Qubit relaxation from evanescent-wave Johnson noise. <i>Physical Review A</i> , 2012 , 86,	2.6	19
38	Jump in specific heat in the presence of a spin-density wave at the superconducting transition in iron pnictides. <i>Physical Review B</i> , 2011 , 84,	3.3	18
37	Phase diagram of iron pnictides if doping acts as a source of disorder. <i>Physical Review B</i> , 2011 , 84,	3.3	46
36	Coexistence between superconducting and spin density wave states in iron-based superconductors: Ginzburg-Landau analysis. <i>Superconductor Science and Technology</i> , 2010 , 23, 054011	3.1	28
35	Reduced effect of impurities on the universal pairing scale in the cuprates. <i>Physical Review B</i> , 2010 , 81,	3.3	7
34	Superconductivity and spin-density waves in multiband metals. <i>Physical Review B</i> , 2010 , 81,	3.3	118
33	Phonon-induced resistance oscillations of two-dimensional electron systems drifting with supersonic velocities. <i>Physical Review B</i> , 2010 , 82,	3.3	17
32	Nonlinear magnetoresistance oscillations in intensely irradiated two-dimensional electron systems induced by multiphoton processes. <i>Physical Review Letters</i> , 2010 , 104, 206801	7.4	37
31	Effect of an Ohmic environment on an optimally controlled flux-biased phase qubit. <i>Physical Review B</i> , 2010 , 82,	3.3	4
30	Coexistence of superconductivity and a spin-density wave in pnictide superconductors: Gap symmetry and nodal lines. <i>Physical Review B</i> , 2009 , 80,	3.3	56
29	Stochastic dynamics of magnetization in a ferromagnetic nanoparticle out of equilibrium. <i>Physical Review B</i> , 2009 , 79,	3.3	16
28	Momentum dependence and nodes of the superconducting gap in the iron pnictides. <i>Physical Review B</i> , 2009 , 80,	3.3	125
27	Mechanisms of the microwave photoconductivity in two-dimensional electron systems with mixed disorder. <i>Physical Review B</i> , 2009 , 80,	3.3	77
26	Superfluid density and penetration depth in the iron pnictides. <i>Physical Review B</i> , 2009 , 79,	3.3	96
25	DIFFERENTIAL RESISTANCE OF TWO DIMENSIONAL ELECTRON SYSTEMS SUBJECT TO MICROWAVE RADIATION. <i>International Journal of Modern Physics B</i> , 2009 , 23, 2693-2697	1.1	2
24	Interplay between magnetism and superconductivity in the iron pnictides. <i>Physical Review B</i> , 2009 , 79,	3.3	106

23	Decreasing excitation gap in Andreev billiards by disorder scattering. <i>Europhysics Letters</i> , 2008 , 82, 47006.6	3
22	Effect of microwave radiation on the nonlinear resistivity of a two-dimensional electron gas at large filling factors. <i>Physical Review B</i> , 2008 , 78,	3-3 56
21	Spin relaxation in quantum dots due to electron exchange with leads. <i>Physical Review Letters</i> , 2008 , 101, 226805	7-4 18
20	Effect of Coulomb interaction on current noise in open quantum dots. <i>Physical Review B</i> , 2007 , 76,	3-3 3
19	Nonlinear resistivity of a two-dimensional electron gas in a magnetic field. <i>Physical Review B</i> , 2007 , 76,	3-3 91
18	Photovoltaic current response of mesoscopic conductors to quantized cavity modes. <i>Physical Review Letters</i> , 2006 , 97, 216801	7-4 4
17	Transport spectroscopy of Kondo quantum dots coupled by RKKY interaction. <i>Physical Review Letters</i> , 2005 , 94, 086805	7-4 64
16	Giant magneto-oscillations of electric-field-induced spin polarization in a two-dimensional electron gas. <i>Physical Review B</i> , 2005 , 72,	3-3 2
15	Theory of microwave-induced oscillations in the magnetoconductivity of a two-dimensional electron gas. <i>Physical Review B</i> , 2005 , 71,	3-3 283
14	Photovoltaic and rectification currents in quantum dots. <i>Physical Review B</i> , 2005 , 71,	3-3 39
13	Failure of the Wiedemann-Franz law in mesoscopic conductors. <i>Physical Review B</i> , 2005 , 72,	3-3 41
12	Aharonov-Bohm effect as a probe of interaction between magnetic impurities. <i>Physical Review Letters</i> , 2005 , 94, 096602	7-4 3
11	Quantum chaotic scattering in time-dependent external fields: random matrix approach. <i>Journal of Physics A</i> , 2005 , 38, 10587-10611	11
10	Compressibility of a two-dimensional electron gas under microwave radiation. <i>Physical Review B</i> , 2004 , 70,	3-3 31
9	Magnetotransport in a two-dimensional electron gas at large filling factors. <i>Physical Review B</i> , 2004 , 69,	3-3 225
8	Quantum disorder and quantum chaos in Andreev billiards. <i>Physical Review B</i> , 2003 , 67,	3-3 49
7	Conductance of mesoscopic systems with magnetic impurities. <i>Physical Review B</i> , 2003 , 67,	3-3 32
6	Absence of Zero-Temperature Dephasing by Electron-Electron Interaction. <i>Journal of Low Temperature Physics</i> , 2002 , 126, 1377-1384	1-3 11

- 5 Noise through quantum pumps. *Physical Review B*, **2002**, 65, 3-3 40
- 4 Conductance fluctuations of open quantum dots under microwave radiation. *Physical Review B*, **2001**, 64, 3-3 19
- 3 Charge pumping and photovoltaic effect in open quantum dots. *Physical Review B*, **2001**, 63, 3-3 112
- 2 Universal gap fluctuations in the superconductor proximity effect. *Physical Review Letters*, **2001**, 86, 874-74 48
- 1 Theory of dephasing by external perturbation in open quantum dots. *Physical Review B*, **1999**, 60, R16311-R16314