

Alexandre M Zagoskin

List of Publications by Year in descending order

Source: <https://exaly.com/author-pdf/2964471/publications.pdf>

Version: 2024-02-01

114
papers

4,033
citations

159358

30
h-index

118652

62
g-index

115
all docs

115
docs citations

115
times ranked

2480
citing authors

#	ARTICLE	IF	CITATIONS
1	Efficient Criteria of Quantumness for a Large System of Qubits. <i>Frontiers in Physics</i> , 2022, 9, .	1.0	2
2	Emergence and control of complex behaviors in driven systems of interacting qubits with dissipation. <i>Npj Quantum Information</i> , 2021, 7, .	2.8	92
3	Towards the Heisenberg limit in microwave photon detection by a qubit array. <i>Physical Review B</i> , 2021, 103, .	1.1	5
4	Chaos and hyperchaos in the chain of quantum coherent elements. , 2020, , .		0
5	An exactly solvable quantum-metamaterial type model. <i>Journal of Physics A: Mathematical and Theoretical</i> , 2019, 52, 395304.	0.7	2
6	A Brief Subjective Perspective on the Development of Quantum Technologies 2.0. <i>Journal of the Physical Society of Japan</i> , 2019, 88, 061001.	0.7	1
7	Time-dependent real-space renormalization-group approach: application to an adiabatic random quantum Ising model. <i>Journal of Physics A: Mathematical and Theoretical</i> , 2019, 52, 045004.	0.7	0
8	Quasi-superradiant soliton state of matter in quantum metamaterials. <i>European Physical Journal B</i> , 2018, 91, 1.	0.6	5
9	Pechukas-Yukawa approach to the evolution of the quantum state of a parametrically perturbed system. <i>Physical Review A</i> , 2018, 97, .	1.0	2
10	Pechukas-Yukawa formalism for Landau-Zener transitions in the presence of external noise. <i>Physical Review A</i> , 2018, 98, .	1.0	1
11	Renninger's Gedankenexperiment, the collapse of the wave function in a rigid quantum metamaterial and the reality of the quantum state vector. <i>Scientific Reports</i> , 2018, 8, 9608.	1.6	1
12	Propagation of fluctuations in the quantum Ising model. <i>Physical Review B</i> , 2017, 95, .	1.1	5
13	Quantum engineering of superconducting structures: Principles, promise and problems. <i>Low Temperature Physics</i> , 2017, 43, 751-755.	0.2	1
14	Bogoliubov-Born-Green-Kirkwood-Yvon chain and kinetic equations for the level dynamics in an externally perturbed quantum system. <i>Physical Review A</i> , 2017, 95, .	1.0	3
15	Illustrative bias. <i>Physics World</i> , 2017, 30, 19-19.	0.0	0
16	Some implications of superconducting quantum interference to the application of master equations in engineering quantum technologies. <i>Physical Review B</i> , 2016, 94, .	1.1	3
17	Quantum metamaterials in the microwave and optical ranges. <i>EPJ Quantum Technology</i> , 2016, 3, .	2.9	29
18	Effects of lasing in a one-dimensional quantum metamaterial. <i>Physical Review B</i> , 2015, 91, .	1.1	15

#	ARTICLE	IF	CITATIONS
19	Toroidal qubits: naturally-decoupled quiet artificial atoms. <i>Scientific Reports</i> , 2015, 5, 16934.	1.6	18
20	Superconducting Quantum Metamaterials. <i>Springer Series in Materials Science</i> , 2015, , 255-279.	0.4	2
21	Recursive simulation of quantum annealing. <i>Journal of Physics A: Mathematical and Theoretical</i> , 2015, 48, 415301.	0.7	1
22	How to test the “quantumness” of a quantum computer?. <i>Frontiers in Physics</i> , 2014, 2, .	1.0	18
23	Engineering Dissipative Channels for Realizing Schrödinger Cats in SQUIDs. <i>Frontiers in ICT</i> , 2014, 1, .	3.6	18
24	The Grand Challenge of Quantum Computing: Bridging the Capacity Gap. <i>Frontiers in ICT</i> , 2014, 1, .	3.6	2
25	Studies of permittivity and permeability of dielectric matrix with cuboid metallic inclusions in different orientations. <i>Journal of Advanced Dielectrics</i> , 2014, 04, 1450032.	1.5	11
26	Tunable refraction in a two-dimensional quantum-state metamaterial. <i>Physical Review A</i> , 2014, 90, .	1.0	2
27	State-dependent photon blockade via quantum-reservoir engineering. <i>Physical Review A</i> , 2014, 90, .	1.0	65
28	Many-Body Theory in One Dimension. <i>Graduate Texts in Physics</i> , 2014, , 227-261.	0.1	0
29	Quantum metamaterial without local control. <i>Physical Review B</i> , 2013, 87, .	1.1	12
30	The influence of dissipation in a 1D quantum metamaterial. <i>Superconductor Science and Technology</i> , 2013, 26, 084005.	1.8	3
31	Transmission through a two dimensional quantum metamaterial. <i>Proceedings of SPIE</i> , 2013, , .	0.8	0
32	Wigner function description of a qubit-oscillator system. <i>Low Temperature Physics</i> , 2013, 39, 289-293.	0.2	0
33	Spatially resolved single photon detection with a quantum sensor array. <i>Scientific Reports</i> , 2013, 3, 3464.	1.6	11
34	Relationship between minimum gap and success probability in adiabatic quantum computing. <i>Journal of Physics A: Mathematical and Theoretical</i> , 2012, 45, 505305.	0.7	6
35	Squeezing as the source of inefficiency in the quantum Otto cycle. <i>Physical Review B</i> , 2012, 86, .	1.1	28
36	Harmonic mixing in two coupled qubits: Quantum synchronization via ac drives. <i>Physical Review A</i> , 2012, 86, .	1.0	7

#	ARTICLE	IF	CITATIONS
37	Feedback-controlled adiabatic quantum computation. Physical Review A, 2012, 86, .	1.0	12
38	Two-qubit parametric amplifier: Large amplification of weak signals. Physical Review A, 2012, 85, .	1.0	14
39	Superconducting quantum metamaterials in 3D: possible realizations. Journal of Optics (United Tj ETQq1 1 0.784314 rgBT /Overlock 16	1.0	16
40	Heat cost of parametric generation of microwave squeezed states. Physical Review A, 2012, 85, .	1.0	13
41	Why quantum engineering?. Low Temperature Physics, 2010, 36, 911-914.	0.2	0
42	Noise-enhanced performance of adiabatic quantum computing by lifting degeneracies. Physical Review A, 2010, 82, .	1.0	5
43	Engineering silicon-based photonic crystal cavities for NV-center quantum information processing. Optics and Spectroscopy (English Translation of Optika I Spektroskopiya), 2010, 108, 225-229.	0.2	3
44	Ultimate On-Chip Quantum Amplifier. Physical Review Letters, 2010, 104, 183603.	2.9	100
45	Electromagnetically Induced Transparency on a Single Artificial Atom. Physical Review Letters, 2010, 104, 193601.	2.9	282
46	Resonance Fluorescence of a Single Artificial Atom. Science, 2010, 327, 840-843.	6.0	574
47	Single-artificial-atom lasing using a voltage-biased superconducting charge qubit. New Journal of Physics, 2009, 11, 023030.	1.2	51
48	Quantum metamaterials: Electromagnetic waves in Josephson qubit lines. Physica Status Solidi (B): Basic Research, 2009, 246, 955-960.	0.7	22
49	Noise-induced quantum coherence and persistent Rabi oscillations in a Josephson flux qubit. Physical Review B, 2009, 80, .	1.1	13
50	SINGLE-ARTIFICIAL-ATOM LASING AND ITS SUPPRESSION BY STRONG PUMPING. , 2009, , .		0
51	Quantum metamaterials: Electromagnetic waves in a Josephson qubit line. Physical Review B, 2008, 77, .	1.1	131
52	Distinguishing quantum from classical oscillations in a driven phase qubit. New Journal of Physics, 2008, 10, 073026.	1.2	19
53	Controlled Generation of Squeezed States of Microwave Radiation in a Superconducting Resonant Circuit. Physical Review Letters, 2008, 101, 253602.	2.9	64
54	Pseudo-Rabi oscillations in superconducting flux qubits in the classical regime. Physical Review B, 2008, 78, .	1.1	11

#	ARTICLE	IF	CITATIONS
55	NONLINEAR RESPONSE AND OBSERVABLE SIGNATURES OF EQUILIBRIUM ENTANGLEMENT. , 2008, , .		0
56	Instantaneous frequency shift of a high Q planar photonic crystal microcavity mode. , 2007, , .		0
57	Controllable Coupling of Superconducting Flux Qubits. Physical Review Letters, 2007, 98, 057004.	2.9	170
58	Modeling an Adiabatic Quantum Computer via an Exact Map to a Gas of Particles. Physical Review Letters, 2007, 98, 120503.	2.9	23
59	Two-level systems driven by large-amplitude fields. Physical Review A, 2007, 75, .	1.0	203
60	Adiabatic Quantum Computation With Flux Qubits, First Experimental Results. IEEE Transactions on Applied Superconductivity, 2007, 17, 113-119.	1.1	12
61	Quantum information processing using frequency control of impurity spins in diamond. Physical Review B, 2007, 76, .	1.1	17
62	A Characterization of Global Entanglement. Quantum Information Processing, 2007, 6, 187-195.	1.0	72
63	Nonlinear Response and Observable Signatures of Equilibrium Entanglement. Quantum Information Processing, 2007, 6, 381-399.	1.0	1
64	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.	0.7	16
65	Switchable resonant coupling of flux qubits. Physical Review B, 2006, 74, .	1.1	61
66	Quantum Two-Level Systems in Josephson Junctions as Naturally Formed Qubits. Physical Review Letters, 2006, 97, 077001.	2.9	102
67	Four-Qubit Device with Mixed Couplings. Physical Review Letters, 2006, 96, 047006.	2.9	70
68	Direct Josephson coupling between superconducting flux qubits. Physical Review B, 2005, 72, .	1.1	50
69	Silent phase qubit based on d-wave Josephson junctions. Physical Review B, 2005, 71, .	1.1	58
70	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
71	Selective amplification of a quantum state. Physical Review A, 2004, 70, .	1.0	15
72	Observation of macroscopic Landau-Zener transitions in a superconducting device. Europhysics Letters, 2004, 65, 844-849.	0.7	60

#	ARTICLE	IF	CITATIONS
73	Evidence for Entangled States of Two Coupled Flux Qubits. Physical Review Letters, 2004, 93, 037003.	2.9	142
74	Spontaneous currents in Josephson junctions between unconventional superconductors and d-wave qubits (Review). Low Temperature Physics, 2004, 30, 535-553.	0.2	11
75	Tunable Coupling of Superconducting Qubits. Physical Review Letters, 2003, 90, 127901.	2.9	171
76	Feasibility studies of ultra-small Josephson junctions for qubits. IEEE Transactions on Applied Superconductivity, 2003, 13, 948-951.	1.1	4
77	Theory of anomalous magnetic interference pattern in mesoscopic superconducting/normal/superconducting Josephson junctions. Physical Review B, 2003, 68, .	1.1	9
78	Continuous Monitoring of Rabi Oscillations in a Josephson Flux Qubit. Physical Review Letters, 2003, 91, 097906.	2.9	136
79	Dynamical Effects of an Unconventional Current-Phase Relation in YBCO dc SQUIDS. Physical Review Letters, 2003, 90, 117002.	2.9	49
80	Mesoscopic josephson junctions of high-Tc superconductors. Physical Review B, 2003, 68, .	1.1	37
81	QUASICLASSICAL CALCULATION OF SPONTANEOUS CURRENT IN RESTRICTED GEOMETRIES. , 2003, , .		0
82	Characterization of superconducting structures designed for qubit realizations. Applied Physics Letters, 2002, 80, 4184-4186.	1.5	33
83	Polarization switching in optical microsphere resonator. Applied Physics Letters, 2002, 80, 3503-3505.	1.5	19
84	Quasiclassical theory of spontaneous currents at surfaces and interfaces of d-wave superconductors. Physica B: Condensed Matter, 2002, 318, 162-179.	1.3	35
85	d-Wave superconductors and quantum computers. Physica C: Superconductivity and Its Applications, 2002, 368, 305-309.	0.6	6
86	Multi-terminal superconducting phase qubit. Physica C: Superconductivity and Its Applications, 2002, 368, 310-314.	0.6	15
87	DC SQUID based on the mesoscopic multiterminal Josephson junction. Physica C: Superconductivity and Its Applications, 2002, 372-376, 178-180.	0.6	11
88	d+isversusd+idâ€²time reversal symmetry breaking states in finite size systems. Physical Review B, 2002, 66, .	1.1	20
89	Mesoscopic multiterminal Josephson structures. I. Effects of nonlocal weak coupling. Low Temperature Physics, 2001, 27, 616-623.	0.2	19
90	Degenerate Ground State in a Mesoscopic YBa ₂ Cu ₃ O ₇ Grain Boundary Josephson Junction. Physical Review Letters, 2001, 86, 5369-5372.	2.9	163

#	ARTICLE	IF	CITATIONS
91	Mechanisms of spontaneous current generation in an inhomogeneous d-wave superconductor. Physical Review B, 2001, 63, .	1.1	38
92	Operation of universal gates in a solid-state quantum computer based on clean Josephson junctions between d-wave superconductors. Physical Review A, 2000, 61, .	1.0	86
93	Andreev scattering and Josephson current in a one-dimensional electron liquid. Physical Review B, 2000, 62, 1433-1445.	1.1	105
94	Coherent transport and nonlocality in mesoscopic SNS junctions: anomalous magnetic interference patterns. Superlattices and Microstructures, 1999, 25, 797-807.	1.4	46
95	Voltage fluctuations on a superconductor grain attached to a quantum wire. Superlattices and Microstructures, 1999, 25, 1177-1183.	1.4	2
96	Spontaneous magnetic flux and quantum noise in an annular mesoscopic SND junction. Journal of Physics Condensed Matter, 1998, 10, L105-L111.	0.7	6
97	Driving-voltage-induced mechanical force oscillations in metal quantum-point contacts. Physical Review B, 1998, 58, 15827-15831.	1.1	7
98	Dissipative electron transport through Andreev interferometers. Physical Review B, 1998, 57, 9995-10016.	1.1	25
99	Fermi edge singularities: Bound states and finite-size effects. Journal of Physics A, 1997, 30, 5743-5765.	1.6	14
100	The half-periodic Josephson effect in an s-wave superconductor - normal-metal - d-wave superconductor junction. Journal of Physics Condensed Matter, 1997, 9, L419-L426.	0.7	19
101	Magnetic Interference Pattern in a Clean s-Wave-Normal Metal-d-Wave Superconductor Junction. Physica Status Solidi (B): Basic Research, 1997, 202, R9-R10.	0.7	1
102	Soft disorder effects in the conductance quantization in quantum point contacts: Indirect backscattering statistics. Solid State Communications, 1996, 97, 279-283.	0.9	2
103	Conductance and persistent current in one-dimensional mesoscopic rings: Configuration-dependent effects of weak impurity scattering. Solid State Communications, 1995, 95, 647-654.	0.9	2
104	Giant conductance oscillations controlled by supercurrent flow through a ballistic mesoscopic conductor. Physical Review B, 1995, 52, R8662-R8665.	1.1	30
105	Noise in a quantum point contact due to a fluctuating impurity configuration. Journal of Physics Condensed Matter, 1995, 7, 7239-7252.	0.7	6
106	Breakdown of conductance quantization in quantum point contacts with realistic impurity potentials. Journal of Physics Condensed Matter, 1995, 7, 6253-6270.	0.7	15
107	Nonlinear transport in a quantum point contact due to soft-disorder-induced coherent mode mixing. Physical Review B, 1994, 50, 4909-4912.	1.1	12
108	Spectroscopy of the potential profile in a ballistic quantum constriction. Physical Review B, 1994, 50, 4590-4593.	1.1	5

#	ARTICLE	IF	CITATIONS
109	Oxygen diffusion and dynamical disorder in high-T _c superconductors: low frequency noise in superconducting tunnel junctions. <i>European Physical Journal B</i> , 1993, 91, 277-284.	0.6	2
110	Oxygen diffusion and dynamical disorder in high-T _c superconductors: Low frequency noise in superconducting tunnel junctions. <i>Applied Superconductivity</i> , 1993, 1, 1123-1132.	0.5	0
111	Magnetic field dependence of cyclotron masses in heavy-fermion conductors in a two-band hybridization model. <i>Physica Scripta</i> , 1993, 48, 382-384.	1.2	0
112	On the temperature dependence of the Hall constant in some heavy-fermion compounds: a qualitative theory. <i>Journal of Physics Condensed Matter</i> , 1992, 4, 7115-7120.	0.7	0
113	Effect of the pressure and magnetic field on the temperature-dependent resistivity of heavy-fermion systems. <i>Physical Review B</i> , 1992, 46, 14903-14905.	1.1	1
114	On the possibility of direct observation of the difference between cyclic and zero boundary conditions. <i>Journal of Physics Condensed Matter</i> , 1990, 2, 5271-5275.	0.7	0