

Shiro Kawabata

List of Publications by Year in descending order

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94
papers

1,120
citations

516215

16
h-index

433756

31
g-index

95
all docs

95
docs citations

95
times ranked

695
citing authors

#	ARTICLE	IF	CITATIONS
1	Variational secure cloud quantum computing. Physical Review A, 2022, 105, .	1.0	0
2	Experimental Demonstrations of Native Implementation of Boolean Logic Hamiltonian in a Superconducting Quantum Annealer. IEEE Transactions on Quantum Engineering, 2021, 2, 1-8.	2.9	2
3	Thermal management of a 3D packaging structure for superconducting quantum annealing machines. Applied Physics Letters, 2021, 118, 174004.	1.5	3
4	Investigation of Heat Transfer in 3D Packaging for Practical-Scale Quantum Annealing Machines. , 2021, , .		0
5	Boltzmann machine learning with a variational quantum algorithm. Physical Review A, 2021, 104, .	1.0	10
6	Characterization of a Weyl semimetal using a unique feature of surface plasmon polaritons. Physical Review B, 2020, 102, .	1.1	14
7	Anomalous current-voltage characteristics of SFIS Josephson junctions with weak ferromagnetic interlayers. Beilstein Journal of Nanotechnology, 2020, 11, 252-262.	1.5	6
8	Enhancing quantum annealing performance by a degenerate two-level system. Scientific Reports, 2020, 10, 146.	1.6	5
9	Pulsed Quantum Annealing. Journal of the Physical Society of Japan, 2020, 89, 094003.	0.7	5
10	Surface plasmon polaritons in thin-film Weyl semimetals. Journal of Physics Condensed Matter, 2019, 31, 305001.	0.7	27
11	Quantum Phase Transition in Fully Connected Quantum Wajnflasz-Pick Model. Journal of the Physical Society of Japan, 2019, 88, 054006.	0.7	2
12	Toward Practical-Scale Quantum Annealing Machine for Prime Factoring. Journal of the Physical Society of Japan, 2019, 88, 061012.	0.7	41
13	Design, Manufacturing, and Packaging Technology for Superconducting Quantum Annealing Machines. Journal of Japan Institute of Electronics Packaging, 2019, 22, 535-541.	0.0	0
14	Universal Quantum Computer and Ising Machine : Recent Developments. Journal of the Japan Society for Precision Engineering, 2019, 85, 1040-1043.	0.0	0
15	Quasi-superradiant soliton state of matter in quantum metamaterials. European Physical Journal B, 2018, 91, 1.	0.6	5
16	Detuning dependence of high-order harmonic generation in monolayer transition metal dichalcogenides. Japanese Journal of Applied Physics, 2018, 57, 04FP11.	0.8	0
17	Control of circularly polarized THz wave from intrinsic Josephson junctions by local heating. Applied Physics Letters, 2017, 110, .	1.5	12
18	Interplay of the Inverse Proximity Effect and Magnetic Field in Out-of-Equilibrium Single-Electron Devices. Physical Review Applied, 2017, 7, .	1.5	6

#	ARTICLE	IF	CITATIONS
19	Thermoelectric properties of bilayer phosphorene under tensile strain. <i>Surface and Interface Analysis</i> , 2016, 48, 1231-1234.	0.8	5
20	Emission of Circularly Polarized Terahertz Wave From Inhomogeneous Intrinsic Josephson Junctions. <i>IEEE Transactions on Applied Superconductivity</i> , 2016, 26, 1-4.	1.1	6
21	Effects of lasing in a one-dimensional quantum metamaterial. <i>Physical Review B</i> , 2015, 91, .	1.1	15
22	Heat transport and electron cooling in ballistic normal-metal/spin-filter/superconductor junctions. <i>Journal of Magnetism and Magnetic Materials</i> , 2015, 383, 157-161.	1.0	7
23	Detection of small exchange fields in S/F structures. <i>Journal of Magnetism and Magnetic Materials</i> , 2015, 383, 175-179.	1.0	10
24	Two-dimensional macroscopic quantum tunneling in multi-gap superconductor Josephson junctions. <i>Journal of Physics: Conference Series</i> , 2014, 568, 022006.	0.3	1
25	Possibility to enhance terahertz emission from intrinsic Josephson junction by external local heating. <i>Journal of Physics: Conference Series</i> , 2014, 507, 042002.	0.3	0
26	Intense terahertz emission from intrinsic Josephson junctions by external heat control. <i>Applied Physics Letters</i> , 2014, 104, .	1.5	35
27	Inter-band phase fluctuations in macroscopic quantum tunneling of multi-gap superconducting Josephson junctions. <i>Physica C: Superconductivity and Its Applications</i> , 2014, 504, 81-83.	0.6	1
28	Theory of macroscopic quantum tunneling with Josephson-Leggett collective excitations in multiband superconducting Josephson junctions. <i>Physical Review B</i> , 2014, 89, .	1.1	10
29	Efficient electron refrigeration using superconductor/spin-filter devices. <i>Applied Physics Letters</i> , 2013, 103, .	1.5	36
30	An effect of temperature distribution on terahertz phase dynamics in intrinsic Josephson junctions. <i>Physica C: Superconductivity and Its Applications</i> , 2013, 494, 121-123.	0.6	3
31	Robustness of Spin-Triplet Pairing and Singlet-Triplet Pairing Crossover in Superconductor/Ferromagnet Hybrids. <i>Journal of the Physical Society of Japan</i> , 2013, 82, 124702.	0.7	28
32	Spectrum of Andreev bound states in Josephson junctions with a ferromagnetic insulator. <i>Journal of Magnetism and Magnetic Materials</i> , 2012, 324, 3467-3470.	1.0	8
33	Theory of finite temperature Josephson transport through a ferromagnetic insulator. <i>Physics Procedia</i> , 2012, 27, 308-311.	1.2	0
34	Current-voltage characteristics of tunnel Josephson junctions with a ferromagnetic interlayer. <i>Physical Review B</i> , 2011, 84, .	1.1	22
35	Macroscopic quantum tunneling induced by a spontaneous field in intrinsic Josephson junctions. <i>Physica C: Superconductivity and Its Applications</i> , 2011, 471, 758-759.	0.6	1
36	Tunneling Hamiltonian description of the atomic-scale σ - π transition in superconductor/ferromagnetic-insulator junctions. <i>Physica C: Superconductivity and Its Applications</i> , 2011, 471, 1199-1201.	0.6	0

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37	Atomic scale π -transition in a high-T superconductor/ferromagnetic-insulator/high-T superconductor Josephson junction. Physica E: Low-Dimensional Systems and Nanostructures, 2011, 43, 722-725.	1.3	3
38	Josephson effect through an anisotropic magnetic molecule. Physical Review B, 2011, 84, . Semiclassical interpretation of the spin interference effect observed in square loop arrays of	1.1	9
39	$\text{Ga}_{0.53}\text{In}_{0.47}\text{As}/\text{InAs}/\text{In}_{0.47}\text{Ga}_{0.53}\text{As}$ Multi-Junction Switching in	1.1	2
40	$\text{Bi}_2\text{Sr}_{1.6}\text{La}_{0.4}\text{CuO}_{6+\delta}$ Intrinsic Josephson Junctions. Applied Physics Express, 2010, 3, 043101.	1.1	6
41	Theory of quantum transport in Josephson junctions with a ferromagnetic insulator. Low Temperature Physics, 2010, 36, 915-919.	0.2	7
42	Dissipative current in SIFS Josephson junctions. Physica C: Superconductivity and Its Applications, 2010, 470, 863-866.	0.6	1
43	Effect of strong coupling on collective macroscopic quantum tunneling in intrinsic Josephson junctions. Physica C: Superconductivity and Its Applications, 2010, 470, S848-S850.	0.6	4
44	Thermally induced π -phase transition in Josephson junctions through a ferromagnetic oxide film. Physica C: Superconductivity and Its Applications, 2010, 470, 1496-1498.	0.6	3
45	Theory of Josephson transport through spintronics nano-structures. Physica E: Low-Dimensional Systems and Nanostructures, 2010, 42, 1010-1013.	1.3	9
46	Josephson State in a Ferromagnetic Insulator. Physical Review Letters, 2010, 104, 117002.	2.9	45
47	A tunneling Hamiltonian theory of $0-\pi$ transition ind-wave superconductor/ferromagnetic-insulator heterostructures. Journal of Physics: Conference Series, 2010, 248, 012039.	0.3	0
48	Theory of two-dimensional macroscopic quantum tunneling in $\text{YBa}_2\text{Cu}_3\text{O}_{7-x}$ junctions coupled to an LC circuit. Physical Review B, 2009, 80, .	1.1	10
49	NUMERICAL STUDY OF π -JUNCTION USING SPIN FILTERING BARRIERS. International Journal of Modern Physics B, 2009, 23, 4320-4328.	1.0	3
50	TWO-DIMENSIONAL MACROSCOPIC QUANTUM DYNAMICS IN YBCO JOSEPHSON JUNCTIONS. International Journal of Modern Physics B, 2009, 23, 4329-4337.	1.0	6
51	Effect of hybridization on the Josephson current through Eu-chalcogenides. Physica C: Superconductivity and Its Applications, 2009, 469, 1621-1623.	0.6	4
52	Switching dynamics and MQT in $\text{Bi}_2\text{201}$ intrinsic Josephson junctions. Physica C: Superconductivity and Its Applications, 2009, 469, 1593-1595.	0.6	1
53	Theory of two-dimensional macroscopic quantum tunneling in a Josephson junction coupled with an LC circuit. Journal of Physics: Conference Series, 2009, 150, 052105.	0.3	1
54	TWO-DIMENSIONAL MACROSCOPIC QUANTUM DYNAMICS IN YBCO JOSEPHSON JUNCTIONS. , 2009, , .		0

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55	NUMERICAL STUDY OF $\tilde{\epsilon}$ -JUNCTION USING SPIN FILTERING BARRIERS. , 2009, , .		0
56	Cooper pair transport and macroscopic quantum dynamics in Josephson junctions through ferromagnetic insulators. Physica C: Superconductivity and Its Applications, 2008, 468, 701-704.	0.6	9
57	Possible observation of energy level quantization in an intrinsic Josephson junction. Physica C: Superconductivity and Its Applications, 2008, 468, 1919-1921.	0.6	5
58	Switching Dynamics of Bi ₂ Sr ₂ CaCu ₂ O ₈ + $\hat{\Gamma}$ Intrinsic Josephson Junctions: Macroscopic Quantum Tunneling and Self-Heating Effect. Journal of the Physical Society of Japan, 2008, 77, 104708.	0.7	45
59	Experimental study of macroscopic quantum tunnelling in Bi ₂ 212 intrinsic Josephson junctions. Superconductor Science and Technology, 2007, 20, S10-S13.	1.8	15
60	Theory of macroscopic quantum tunnelling and dissipation in high-T _c Josephson junctions. Superconductor Science and Technology, 2007, 20, S6-S9.	1.8	13
61	Theory of macroscopic quantum tunnelling in high-T_c Josephson junctions. Physical Review B, 2007, 76, 044504. $T_c < T_c^c$ Macroscopic quantum tunneling and quasiparticle-tunneling blockade effect in c -axis Josephson junctions. Physical Review B, 2007, 76, 044504.	1.1	31
62	s -wave/ d -wave hybrid junctions. Physical Review B, 2007, 76, 044504.	1.1	16
63	Quantum dissipative dynamics in nanostructure d -wave Josephson junctions. Physica C: Superconductivity and Its Applications, 2007, 460-462, 1479-1480.	0.6	0
64	Theory of macroscopic quantum coherence in d -wave superconductor junctions. Physica C: Superconductivity and Its Applications, 2007, 463-465, 157-160.	0.6	6
65	Theory of macroscopic quantum tunneling in Nb/Au/YBCO Josephson junctions. Physica C: Superconductivity and Its Applications, 2007, 463-465, 80-83.	0.6	1
66	Macroscopic quantum tunneling in Josephson junctions with insulating ferromagnets and its application to phase qubits. Physica E: Low-Dimensional Systems and Nanostructures, 2007, 40, 386-389.	1.3	11
67	MQT observation in Bi ₂ 212 intrinsic Josephson junctions. Physica C: Superconductivity and Its Applications, 2007, 460-462, 1432-1433.	0.6	0
68	Theory of superconducting $\tilde{\epsilon}$ -qubit with a ferromagnetic insulator. Physica C: Superconductivity and Its Applications, 2006, 437-438, 136-139.	0.6	15
69	Theory of macroscopic quantum tunneling in high-T _c cuprate. Physica C: Superconductivity and Its Applications, 2006, 437-438, 140-144.	0.6	2
70	Macroscopic quantum tunneling and dissipation in c -axis twist Josephson junctions. Journal of Physics and Chemistry of Solids, 2006, 67, 120-122.	1.9	3
71	Macroscopic quantum dynamics of $\tilde{\epsilon}$ -junctions with ferromagnetic insulators. Physical Review B, 2006, 74, .	1.1	44
72	Quasiparticle dissipation in the measurement process of phase qubit using high-T _c superconductors. Physica E: Low-Dimensional Systems and Nanostructures, 2005, 29, 669-673.	1.3	10

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73	Effect of zero-energy bound states on macroscopic quantum tunneling in high-Tc superconductor junctions. Physical Review B, 2005, 72, .	1.1	47
74	Macroscopic Quantum Tunneling in ad-Wave High-TC Bi ₂ Sr ₂ CaCu ₂ O ₈ +Î Superconductor. Physical Review Letters, 2005, 95, 107005.	2.9	172
75	MACROSCOPIC QUANTUM TUNNELING IN D-WAVE SUPERCONDUCTOR JOSEPHSON. , 2005, , .		0
76	Macroscopic quantum tunneling and quasiparticle dissipation in d-wave superconductor Josephson junctions. Physical Review B, 2004, 70, .	1.1	69
77	Quasi-particle Dissipation in d-wave Superconductor Phase Qubit. AIP Conference Proceedings, 2004, , .	0.3	0
78	Quantum information processing and entanglement in solid state devices. Science and Technology of Advanced Materials, 2004, 5, 295-299.	2.8	6
79	Information-theoretical approach to control of quantum-mechanical systems. Physical Review A, 2003, 68, .	1.0	3
80	Information Theoretical Limits on Quantum Control. Journal of the Physical Society of Japan, 2003, 72, 189-192.	0.7	0
81	Quantum Error-Correcting Code for Burst Error. , 2002, , 231-234.		0
82	Test of Bell's Inequality using the Spin Filter Effect in Ferromagnetic Semiconductor Microstructures. Journal of the Physical Society of Japan, 2001, 70, 1210-1213.	0.7	87
83	Quantum Interleaver: Quantum Error Correction for Burst Error. Journal of the Physical Society of Japan, 2000, 69, 3540-3543.	0.7	14
84	Berry phase induced persistent current in mesoscopic systems. AIP Conference Proceedings, 2000, , .	0.3	0
85	Persistent currents in quantum chaotic systems. Physical Review B, 1999, 59, 12256-12259.	1.1	7
86	Berry phase and persistent current in disordered mesoscopic rings. Physical Review B, 1999, 60, R8457-R8460.	1.1	2
87	Chaos and quantum interference effect in semiconductor ballistic micro-structures. , 1999, , 265-268.		0
88	h/2e Oscillations and negative magneto-resistance in ballistic chaotic Aharonov-Bohm billiards. Solid-State Electronics, 1998, 42, 1131-1134.	0.8	1
89	Semiclassical theory of h/e Aharonov-Bohm oscillation for doubly connected ballistic cavities. Physical Review B, 1998, 58, 6704-6707.	1.1	4
90	h/2e oscillations and quantum chaos in ballistic Aharonov-Bohm billiards. Physical Review B, 1998, 57, 6282-6285.	1.1	9

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91	Ballistic Conductance Fluctuation and Quantum Chaos in Sinai Billiard. Journal of the Physical Society of Japan, 1997, 66, 712-716.	0.7	4
92	Quantum chaotic transport in ballistic Aharonov-Bohm billiards. Chaos, Solitons and Fractals, 1997, 8, 1085-1098.	2.5	6
93	Al'tshuler-Aronov-Spivak Effect in Ballistic Chaotic Aharonov-Bohm Billiards. Journal of the Physical Society of Japan, 1996, 65, 3708-3711.	0.7	19
94	Calculation of Gibbs partition function with imaginary time evolution on near-term quantum computers. Japanese Journal of Applied Physics, 0, , .	0.8	3