

Shi-Liang Zhu

List of Publications by Citations

Source: <https://exaly.com/author-pdf/6660962/shi-liang-zhu-publications-by-citations.pdf>

Version: 2024-04-24

This document has been generated based on the publications and citations recorded by exaly.com. For the latest version of this publication list, visit the link given above.

The third column is the impact factor (IF) of the journal, and the fourth column is the number of citations of the article.

143
papers

4,231
citations

37
h-index

61
g-index

151
ext. papers

5,083
ext. citations

4
avg, IF

5.85
L-index

#	Paper	IF	Citations
143	Simulation and detection of dirac fermions with cold atoms in an optical lattice. <i>Physical Review Letters</i> , 2007 , 98, 260402	7.4	249
142	Implementation of universal quantum gates based on nonadiabatic geometric phases. <i>Physical Review Letters</i> , 2002 , 89, 097902	7.4	228
141	Scaling of geometric phases close to the quantum phase transition in the XY spin chain. <i>Physical Review Letters</i> , 2006 , 96, 077206	7.4	206
140	Unconventional geometric quantum computation. <i>Physical Review Letters</i> , 2003 , 91, 187902	7.4	196
139	Spin Hall effects for cold atoms in a light-induced gauge potential. <i>Physical Review Letters</i> , 2006 , 97, 240401	7.4	193
138	Experimental realization of stimulated Raman shortcut-to-adiabatic passage with cold atoms. <i>Nature Communications</i> , 2016 , 7, 12479	17.4	136
137	Geometric quantum computation and multiqubit entanglement with superconducting qubits inside a cavity. <i>Physical Review Letters</i> , 2005 , 94, 100502	7.4	123
136	Geometric quantum gates that are robust against stochastic control errors. <i>Physical Review A</i> , 2005 , 72,	2.6	119
135	Trapped ion quantum computation with transverse phonon modes. <i>Physical Review Letters</i> , 2006 , 97, 050505	7.4	113
134	Probing non-abelian statistics of Majorana fermions in ultracold atomic superfluid. <i>Physical Review Letters</i> , 2011 , 106, 100404	7.4	108
133	Realizing and detecting the quantum Hall effect without landau levels by using ultracold atoms. <i>Physical Review Letters</i> , 2008 , 101, 246810	7.4	108
132	Efficient quantum memory for single-photon polarization qubits. <i>Nature Photonics</i> , 2019 , 13, 346-351	33.9	99
131	Topological quantum matter with cold atoms. <i>Advances in Physics</i> , 2018 , 67, 253-402	18.4	99
130	Interplay of non-Hermitian skin effects and Anderson localization in nonreciprocal quasiperiodic lattices. <i>Physical Review B</i> , 2019 , 100,	3.3	84
129	Simulating Z2 topological insulators with cold atoms in a one-dimensional optical lattice. <i>Physical Review A</i> , 2012 , 85,	2.6	77
128	Topological Bose-Mott insulators in a one-dimensional optical superlattice. <i>Physical Review Letters</i> , 2013 , 110, 075303	7.4	76
127	Arbitrary-speed quantum gates within large ion crystals through minimum control of laser beams. <i>Europhysics Letters</i> , 2006 , 73, 485-491	1.6	72

126	Universal quantum gates based on a pair of orthogonal cyclic states: Application to NMR systems. <i>Physical Review A</i> , 2003 , 67,	2.6	67
125	Relativistic quantum effects of Dirac particles simulated by ultracold atoms. <i>Frontiers of Physics</i> , 2012 , 7, 31-53	3.7	54
124	Topological Maxwell Metal Bands in a Superconducting Qutrit. <i>Physical Review Letters</i> , 2018 , 120, 130503.	3.4	53
123	Delocalization of relativistic dirac particles in disordered one-dimensional systems and its implementation with cold atoms. <i>Physical Review Letters</i> , 2009 , 102, 210403	7.4	52
122	Josephson dynamics of a spin-orbit-coupled Bose-Einstein condensate in a double-well potential. <i>Physical Review A</i> , 2012 , 85,	2.6	51
121	Topological insulator and particle pumping in a one-dimensional shaken optical lattice. <i>Physical Review A</i> , 2014 , 90,	2.6	48
120	Geometric phase shift in quantum computation using superconducting nanocircuits: Nonadiabatic effects. <i>Physical Review A</i> , 2002 , 66,	2.6	46
119	Direct Observation of Topology from Single-Photon Dynamics. <i>Physical Review Letters</i> , 2019 , 122, 193903.	3.4	45
118	Robust quantum state transfer via topological edge states in superconducting qubit chains. <i>Physical Review A</i> , 2018 , 98,	2.6	44
117	Proposal for implementing universal superadiabatic geometric quantum gates in nitrogen-vacancy centers. <i>Physical Review A</i> , 2016 , 93,	2.6	43
116	Nonadiabatic noncyclic geometric phase and ensemble average spectrum of conductance in disordered mesoscopic rings with spin-orbit coupling. <i>Physical Review Letters</i> , 2000 , 85, 1076-9	7.4	41
115	Quantum simulation of exotic PT-invariant topological nodal loop bands with ultracold atoms in an optical lattice. <i>Physical Review A</i> , 2016 , 93,	2.6	40
114	Simulating and exploring Weyl semimetal physics with cold atoms in a two-dimensional optical lattice. <i>Physical Review A</i> , 2015 , 92,	2.6	40
113	Simulating and detecting the quantum spin Hall effect in the kagome optical lattice. <i>Physical Review A</i> , 2010 , 82,	2.6	40
112	Quantum-information processing using Josephson junctions coupled through cavities. <i>Physical Review A</i> , 2003 , 68,	2.6	40
111	Demonstration of geometric Landau-Zener interferometry in a superconducting qubit. <i>Physical Review Letters</i> , 2014 , 112, 027001	7.4	39
110	Sudden death of distillability in qutrit-qutrit systems. <i>Physical Review A</i> , 2009 , 80,	2.6	39
109	Experimental Measurement of the Quantum Metric Tensor and Related Topological Phase Transition with a Superconducting Qubit. <i>Physical Review Letters</i> , 2019 , 122, 210401	7.4	38

108	Macroscopic Klein tunneling in spin-orbit-coupled Bose-Einstein condensates. <i>Physical Review A</i> , 2012 , 85,	2.6	38
107	Nonadiabatic noncyclic geometric phase of a spin-1/2 particle subject to an arbitrary magnetic field. <i>Physical Review B</i> , 2000 , 61, 1142-1148	3.3	38
106	Subnatural-linewidth polarization-entangled photon pairs with controllable temporal length. <i>Physical Review Letters</i> , 2014 , 112, 243602	7.4	36
105	GEOMETRIC PHASES AND QUANTUM PHASE TRANSITIONS. <i>International Journal of Modern Physics B</i> , 2008 , 22, 561-581	1.1	34
104	Charge pumping in a quantum wire driven by a series of local time-periodic potentials. <i>Physical Review B</i> , 2002 , 65,	3.3	34
103	Emergent pseudospin-1 Maxwell fermions with a threefold degeneracy in optical lattices. <i>Physical Review A</i> , 2017 , 96,	2.6	33
102	Nonadiabatic geometric quantum computation using a single-loop scenario. <i>Physical Review A</i> , 2005 , 71,	2.6	33
101	Non-Hermitian topological Anderson insulators. <i>Science China: Physics, Mechanics and Astronomy</i> , 2020 , 63, 1	3.6	31
100	Quantum jumps between macroscopic quantum states of a superconducting qubit coupled to a microscopic two-level system. <i>Physical Review Letters</i> , 2008 , 101, 157001	7.4	30
99	Simulation and detection of photonic Chern insulators in a one-dimensional circuit-QED lattice. <i>Physical Review A</i> , 2015 , 92,	2.6	29
98	Topological superfluid transition induced by a periodically driven optical lattice. <i>Physical Review A</i> , 2012 , 86,	2.6	28
97	Experimental test of the no-go theorem for continuous epistemic models. <i>Scientific Reports</i> , 2016 , 6, 26519	4.9	28
96	High fidelity quantum state transfer in electromechanical systems with intermediate coupling. <i>Scientific Reports</i> , 2014 , 4, 6237	4.9	25
95	Superfluid and magnetic states of an ultracold Bose gas with synthetic three-dimensional spin-orbit coupling in an optical lattice. <i>Physical Review A</i> , 2013 , 88,	2.6	25
94	Skin superfluid, topological Mott insulators, and asymmetric dynamics in an interacting non-Hermitian Aubry-Andr�Harper model. <i>Physical Review B</i> , 2020 , 101,	3.3	24
93	Simulating the Kibble-Zurek mechanism of the Ising model with a superconducting qubit system. <i>Scientific Reports</i> , 2016 , 6, 22667	4.9	22
92	Physical implementation of topologically decoherence-protected superconducting qubits. <i>Physical Review A</i> , 2008 , 77,	2.6	22
91	Experimental observation of double coherent stimulated Raman adiabatic passages in three-level Λ systems in a cold atomic ensemble. <i>Physical Review A</i> , 2014 , 90,	2.6	21

90	Tunable interfaces for realizing universal quantum computation with topological qubits. <i>Physical Review A</i> , 2013 , 88,	2.6	21
89	Robust interface between flying and topological qubits. <i>Scientific Reports</i> , 2015 , 5, 12233	4.9	20
88	Conductance of a quantum point contact in the presence of a scanning probe microscope tip. <i>Physical Review B</i> , 2002 , 65,	3.3	20
87	Microwave electrometry via electromagnetically induced absorption in cold Rydberg atoms. <i>Physical Review A</i> , 2020 , 101,	2.6	18
86	Exploring topological double-Weyl semimetals with cold atoms in optical lattices. <i>Physical Review A</i> , 2017 , 95,	2.6	18
85	Simulation and measurement of the fractional particle number in one-dimensional optical lattices. <i>Physical Review A</i> , 2015 , 92,	2.6	18
84	Implementing topological quantum manipulation with superconducting circuits. <i>Physical Review A</i> , 2009 , 79,	2.6	18
83	Dynamics of Weyl quasiparticles in an optical lattice. <i>Physical Review A</i> , 2016 , 94,	2.6	17
82	Witnessing topological Weyl semimetal phase in a minimal circuit-QED lattice. <i>Quantum Science and Technology</i> , 2016 , 1, 015006	5.5	16
81	Observation of coherent oscillation in single-passage Landau-Zener transitions. <i>Scientific Reports</i> , 2015 , 5, 8463	4.9	14
80	Testing Bell's inequality and measuring the entanglement using superconducting nanocircuits. <i>Physical Review A</i> , 2003 , 68,	2.6	14
79	Complex quantum network model of energy transfer in photosynthetic complexes. <i>Physical Review E</i> , 2012 , 86, 061917	2.4	13
78	Experimental Observation of Tensor Monopoles with a Superconducting Qudit. <i>Physical Review Letters</i> , 2021 , 126, 017702	7.4	13
77	Experimental observation of simultaneous wave and particle behavior in a narrowband single-photon wave packet. <i>Physical Review A</i> , 2015 , 91,	2.6	12
76	Quantum computation in a decoherence-free subspace with superconducting devices. <i>European Physical Journal D</i> , 2009 , 55, 223-228	1.3	12
75	Particle-number fractionalization of a one-dimensional atomic Fermi gas with synthetic spin-orbit coupling. <i>Physical Review A</i> , 2012 , 86,	2.6	12
74	Detecting unambiguously non-Abelian geometric phases with trapped ions. <i>New Journal of Physics</i> , 2008 , 10, 043031	2.9	12
73	Bichromatic electromagnetically induced transparency in hot atomic vapors. <i>Physical Review A</i> , 2013 , 87,	2.6	11

72	Three-dimensional Dirac-like fermions in an optical lattice. <i>Physical Review A</i> , 2010 , 82,	2.6	11
71	Circuit QED with qutrits: Coupling three or more atoms via virtual-photon exchange. <i>Physical Review A</i> , 2017 , 96,	2.6	10
70	Conductance of a quantum point contact in the presence of spin-orbit interaction. <i>Journal of Applied Physics</i> , 2002 , 91, 6545	2.5	10
69	Realizing quantum linear regression with auxiliary qumodes. <i>Physical Review A</i> , 2019 , 99,	2.6	9
68	Generalized Hofstadter model on a cubic optical lattice: From nodal bands to the three-dimensional quantum Hall effect. <i>Physical Review A</i> , 2017 , 95,	2.6	9
67	Simulation of the spin-boson model with superconducting phase qubit coupled to a transmission line. <i>Science China: Physics, Mechanics and Astronomy</i> , 2012 , 55, 1557-1561	3.6	9
66	Topology-dependent quantum dynamics and entanglement-dependent topological pumping in superconducting qubit chains. <i>Physical Review A</i> , 2018 , 98,	2.6	9
65	Protocol for Implementing Quantum Nonparametric Learning with Trapped Ions. <i>Physical Review Letters</i> , 2020 , 124, 010506	7.4	8
64	Optimal conventional measurements for quantum-enhanced interferometry. <i>Physical Review A</i> , 2017 , 95,	2.6	8
63	Graphene-like physics in optical lattices. <i>Chinese Physics B</i> , 2013 , 22, 116106	1.2	8
62	Probing a half-odd topological number sequence with cold atoms in a non-Abelian optical lattice. <i>Physical Review A</i> , 2011 , 84,	2.6	8
61	Efficient Phase-Encoding Quantum Key Generation with Narrow-Band Single Photons. <i>Chinese Physics Letters</i> , 2011 , 28, 070307	1.8	8
60	Implementation of local and high-fidelity quantum conditional phase gates in a scalable two-dimensional ion trap. <i>Physics Letters, Section A: General, Atomic and Solid State Physics</i> , 2010 , 374, 1425-1430	2.3	8
59	Persistent currents induced by spin-orbit coupling in one-dimensional mesoscopic rings. <i>Physical Review B</i> , 1995 , 52, 7814-7817	3.3	8
58	Simulating the dynamical quantum Hall effect with superconducting qubits. <i>Physical Review A</i> , 2015 , 91,	2.6	7
57	Inelastic transport detection of spin quantum tunneling and spin relaxation in single-molecule magnets in the absence of a magnetic field. <i>Physical Review B</i> , 2012 , 85,	3.3	7
56	Simulating bosonic Chern insulators in one-dimensional optical superlattices. <i>Physical Review A</i> , 2020 , 101,	2.6	6
55	Geometric atom interferometry with shortcuts to adiabaticity. <i>Physical Review A</i> , 2017 , 95,	2.6	6

54	Degenerate eigensubspace in a triangle-level system and its geometric quantum control. <i>Physical Review A</i> , 2017 , 96,	2.6	6
53	Anti-Kibble-Zurek behavior of a noisy transverse-field XY chain and its quantum simulation with two-level systems. <i>Physical Review B</i> , 2017 , 95,	3.3	6
52	Realization of dark state in a three-dimensional transmon superconducting qutrit. <i>Applied Physics Letters</i> , 2015 , 107, 202601	3.4	6
51	Proposal for a rotation-sensing interferometer with spin-orbit-coupled atoms. <i>Physical Review A</i> , 2012 , 85,	2.6	6
50	Nonadiabatic noncyclic geometric phase and persistent current in one-dimensional rings. <i>Physical Review B</i> , 1999 , 60, 10668-10671	3.3	6
49	Rydberg-atom-based electrometry. <i>Wuli Xuebao/Acta Physica Sinica</i> , 2015 , 64, 160702	0.6	6
48	Digital Simulation of Topological Matter on Programmable Quantum Processors. <i>Physical Review Letters</i> , 2020 , 125, 160503	7.4	6
47	Quench Measurement of a Pure Quantum-State Wave Function. <i>Physical Review Letters</i> , 2019 , 123, 190402	7.4	5
46	Topological phases of the kicked Harper-Kitaev model with ultracold atoms. <i>Journal of Physics Condensed Matter</i> , 2017 , 29, 035601	1.8	5
45	Valley-dependent gauge fields for ultracold atoms in square optical superlattices. <i>Physical Review A</i> , 2014 , 89,	2.6	5
44	Implementing multi-qubit entanglement of two-level systems inside a superconducting phase qubit. <i>European Physical Journal D</i> , 2011 , 61, 499-505	1.3	5
43	Persistent currents in a mesoscopic ring in an inhomogeneous magnetic field. <i>Physics Letters, Section A: General, Atomic and Solid State Physics</i> , 1994 , 187, 74-78	2.3	5
42	Chiral magnetic effect in three-dimensional optical lattices. <i>Physical Review Research</i> , 2019 , 1,	3.9	5
41	Topological quantum memory interfacing atomic and superconducting qubits. <i>Science China: Physics, Mechanics and Astronomy</i> , 2016 , 59, 1	3.6	5
40	Topological metal bands with double-triple-point fermions in optical lattices. <i>Physical Review A</i> , 2018 , 98,	2.6	5
39	Some topological states in one-dimensional cold atomic systems. <i>Annals of Physics</i> , 2015 , 358, 58-82	2.5	4
38	Einstein-Podolsky-Rosen Energy-Time Entanglement of Narrow-Band Biphotons. <i>Physical Review Letters</i> , 2020 , 124, 010509	7.4	4
37	Simultaneously exciting two atoms with photon-mediated Raman interactions. <i>Physical Review A</i> , 2017 , 95,	2.6	4

36	Measurement of the topological Chern number by continuous probing of a qubit subject to a slowly varying Hamiltonian. <i>Physical Review A</i> , 2017 , 96,	2.6	4
35	Dark periods in Rabi oscillations of a superconducting phase qubit coupled to a microscopic two-level system. <i>Physical Review B</i> , 2009 , 80,	3.3	4
34	Emulating topological currents arising from a dipolar parity anomaly in two-dimensional optical lattices. <i>Physical Review A</i> , 2019 , 99,	2.6	3
33	Directly probing the Chern number of the Haldane model in optical lattices. <i>Journal of the Optical Society of America B: Optical Physics</i> , 2015 , 32, 2500	1.7	3
32	The periodic orbit magnetic ordering transition on mesoscopic tubes. <i>Solid State Communications</i> , 1995 , 95, 765-769	1.6	3
31	Simulating the Majorana dynamics with ultracold atomic gases in a bilayer honeycomb lattice. <i>Physical Review Research</i> , 2020 , 2,	3.9	3
30	Double exceptional links in a three-dimensional dissipative cold atomic gas. <i>Physical Review A</i> , 2020 , 102,	2.6	3
29	Statistically related many-body localization in the one-dimensional anyon Hubbard model. <i>Physical Review B</i> , 2020 , 102,	3.3	3
28	Coherent Coupling between Microwave and Optical Fields via Cold Atoms*. <i>Chinese Physics Letters</i> , 2019 , 36, 080301	1.8	2
27	Generation of Gaussian-Shape Single Photons for High Efficiency Quantum Storage. <i>Chinese Physics Letters</i> , 2019 , 36, 074202	1.8	2
26	Energy levels of a spin-orbit-coupled Bose-Einstein condensate in a double-well potential. <i>Laser Physics</i> , 2015 , 25, 025501	1.2	2
25	Experimental Generation of Narrow-Band Paired Photons: from Damped Rabi Oscillation to Group Delay. <i>Chinese Physics Letters</i> , 2014 , 31, 034205	1.8	2
24	An experimental proposal to test dynamic quantum non-locality with single-atom interferometry. <i>Europhysics Letters</i> , 2011 , 94, 50006	1.6	2
23	Localization and mesoscopic persistent current in a disordered metal ring. <i>Physical Review B</i> , 1996 , 53, 12597-12600	3.3	2
22	Continuous-Variable Assisted Thermal Quantum Simulation. <i>Physical Review Letters</i> , 2021 , 127, 020502	7.4	2
21	Terahertz electrometry Based On Rydberg Atoms. <i>Wuli Xuebao/Acta Physica Sinica</i> , 2021 , 0-0	0.6	2
20	Simulating the Klein tunneling of pseudospin-one Maxwell particles with trapped ions. <i>Physics Letters, Section A: General, Atomic and Solid State Physics</i> , 2019 , 383, 2462-2466	2.3	1
19	Production of ⁸⁷ Rb Bose-Einstein Condensate with a Simple Evaporative Cooling Method. <i>Chinese Physics Letters</i> , 2020 , 37, 036701	1.8	1

18	Efficient generation of hyperentangled photon pairs with controllable waveforms from cold atoms. <i>Journal of the Optical Society of America B: Optical Physics</i> , 2013 , 30, 362	1.7	1
17	Geometric quantum computation using superconducting nanocircuits. <i>Physica C: Superconductivity and Its Applications</i> , 2001 , 364-365, 213-215	1.3	1
16	Berry phase and Aharonov-Bohm effect in one-dimensional mesoscopic ring with an adiabatic rotating potential. <i>Solid State Communications</i> , 1999 , 113, 233-237	1.6	1
15	Extracting non-Abelian quantum metric tensor and its related Chern numbers. <i>Physical Review A</i> , 2022 , 105,	2.6	1
14	Band topology of pseudo-Hermitian phases through tensor Berry connections and quantum metric. <i>Physical Review B</i> , 2021 , 104,	3.3	1
13	Simulating Dirac, Weyl and Maxwell equations with cold atoms in optical lattices. <i>Wuli Xuebao/Acta Physica Sinica</i> , 2019 , 68, 046701	0.6	1
12	Connecting topological Anderson and Mott insulators in disordered interacting fermionic systems. <i>Physical Review B</i> , 2021 , 104,	3.3	1
11	Efficient microwave-to-optical single-photon conversion with a single flying circular Rydberg atom. <i>Optics Express</i> , 2021 , 29, 9942-9959	3.3	1
10	Geometry and superfluidity of the flat band in a non-Hermitian optical lattice. <i>Physical Review A</i> , 2021 , 103,	2.6	1
9	Selected topics of quantum computing for nuclear physics*. <i>Chinese Physics B</i> , 2021 , 30, 020306	1.2	1
8	Non-Hermitian topological end breathers. <i>Physical Review B</i> , 2021 , 104,	3.3	1
7	Measurement of Spin Chern Numbers in Quantum Simulated Topological Insulators. <i>Physical Review Letters</i> , 2021 , 127, 136802	7.4	1
6	High-efficiency coherent microwave-to-optics conversion via off-resonant scattering. <i>Nature Photonics</i> , 2022 , 16, 291-296	33.9	1
5	Anomalous Temperature Effects of the Entanglement of Two Coupled Qubits in Independent Environments. <i>Chinese Physics Letters</i> , 2012 , 29, 040301	1.8	0
4	Synchronization and Phase Shaping of Single Photons with High-Efficiency Quantum Memory. <i>Chinese Physics Letters</i> , 2021 , 38, 094202	1.8	0
3	Remote interfacing between superconducting qubits and Rydberg-atom qubits via thermal coupled cavities. <i>Science China: Physics, Mechanics and Astronomy</i> , 2022 , 65, 1	3.6	0
2	Quantum scattering model of energy transfer in photosynthetic complexes. <i>Laser Physics Letters</i> , 2015 , 12, 125201	1.5	
1	Topological Transition Enabled by Surface Modification of Photonic Crystals. <i>ACS Photonics</i> , 2021 , 8, 1385-1392	6.3	

