Shi-Liang Zhu

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.

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	Extracting non-Abelian quantum metric tensor and its related Chern numbers. *Physical Review A*, **2022**, 105,	2.6	1
142	High-efficiency coherent microwave-to-optics conversion via off-resonant scattering. *Nature Photonics*, **2022**, 16, 291-296	33.9	1
141	Remote interfacing between superconducting qubits and Rydberg-atom qubits via thermal coupled cavities. *Science China: Physics, Mechanics and Astronomy*, **2022**, 65, 1	3.6	0
140	Band topology of pseudo-Hermitian phases through tensor Berry connections and quantum metric. *Physical Review B*, **2021**, 104,	3.3	1
139	Synchronization and Phase Shaping of Single Photons with High-Efficiency Quantum Memory. *Chinese Physics Letters*, **2021**, 38, 094202	1.8	0
138	Connecting topological Anderson and Mott insulators in disordered interacting fermionic systems. *Physical Review B*, **2021**, 104,	3.3	1
137	Efficient microwave-to-optical single-photon conversion with a single flying circular Rydberg atom. *Optics Express*, **2021**, 29, 9942-9959	3.3	1
136	Geometry and superfluidity of the flat band in a non-Hermitian optical lattice. *Physical Review A*, **2021**, 103,	2.6	1
135	Topological Transition Enabled by Surface Modification of Photonic Crystals. *ACS Photonics*, **2021**, 8, 1385-1392	6.3	
134	Continuous-Variable Assisted Thermal Quantum Simulation. *Physical Review Letters*, **2021**, 127, 020502	7.4	2
133	Experimental Observation of Tensor Monopoles with a Superconducting Qudit. *Physical Review Letters*, **2021**, 126, 017702	7.4	13
132	Terahertz electrometry Based On Rydberg Atoms. *Wuli Xuebao/Acta Physica Sinica*, **2021**, 0-0	0.6	2
131	Selected topics of quantum computing for nuclear physics*. *Chinese Physics B*, **2021**, 30, 020306	1.2	1
130	Non-Hermitian topological end breathers. *Physical Review B*, **2021**, 104,	3.3	1
129	Measurement of Spin Chern Numbers in Quantum Simulated Topological Insulators. *Physical Review Letters*, **2021**, 127, 136802	7.4	1
128	Microwave electrometry via electromagnetically induced absorption in cold Rydberg atoms. *Physical Review A*, **2020**, 101,	2.6	18
127	Skin superfluid, topological Mott insulators, and asymmetric dynamics in an interacting non-Hermitian Aubry-Andr□Harper model. *Physical Review B*, **2020**, 101,	3.3	24

126	Protocol for Implementing Quantum Nonparametric Learning with Trapped Ions. *Physical Review Letters*, **2020**, 124, 010506	7.4	8
125	Production of 87Rb Bose-Einstein Condensate with a Simple Evaporative Cooling Method. *Chinese Physics Letters*, **2020**, 37, 036701	1.8	1
124	Simulating bosonic Chern insulators in one-dimensional optical superlattices. *Physical Review A*, **2020**, 101,	2.6	6
123	Einstein-Podolsky-Rosen Energy-Time Entanglement of Narrow-Band Biphotons. *Physical Review Letters*, **2020**, 124, 010509	7.4	4
122	Non-Hermitian topological Anderson insulators. *Science China: Physics, Mechanics and Astronomy*, **2020**, 63, 1	3.6	31
121	Simulating the Majorana dynamics with ultracold atomic gases in a bilayer honeycomb lattice. *Physical Review Research*, **2020**, 2,	3.9	3
120	Digital Simulation of Topological Matter on Programmable Quantum Processors. *Physical Review Letters*, **2020**, 125, 160503	7.4	6
119	Double exceptional links in a three-dimensional dissipative cold atomic gas. *Physical Review A*, **2020** , 102,	2.6	3
118	Statistically related many-body localization in the one-dimensional anyon Hubbard model. *Physical Review B*, **2020**, 102,	3.3	3
117	Realizing quantum linear regression with auxiliary qumodes. *Physical Review A*, **2019**, 99,	2.6	9
116	Simulating the Klein tunneling of pseudospin-one Maxwell particles with trapped ions. *Physics Letters, Section A: General, Atomic and Solid State Physics*, **2019**, 383, 2462-2466	2.3	1
115	Experimental Measurement of the Quantum Metric Tensor and Related Topological Phase Transition with a Superconducting Qubit. *Physical Review Letters*, **2019**, 122, 210401	7.4	38
114	Emulating topological currents arising from a dipolar parity anomaly in two-dimensional optical lattices. *Physical Review A*, **2019**, 99,	2.6	3
113	Direct Observation of Topology from Single-Photon Dynamics. *Physical Review Letters*, **2019**, 122, 193903	7.4	45
112	Efficient quantum memory for single-photon polarization qubits. *Nature Photonics*, **2019**, 13, 346-351	33.9	99
111	Coherent Coupling between Microwave and Optical Fields via Cold Atoms*. *Chinese Physics Letters*, **2019**, 36, 080301	1.8	2
110	Generation of Gaussian-Shape Single Photons for High Efficiency Quantum Storage. *Chinese Physics Letters*, **2019**, 36, 074202	1.8	2
109	Interplay of non-Hermitian skin effects and Anderson localization in nonreciprocal quasiperiodic lattices. *Physical Review B*, **2019**, 100,	3.3	84

108	Quench Measurement of a Pure Quantum-State Wave Function. *Physical Review Letters*, **2019**, 123, 190402	7.4	5
107	Chiral magnetic effect in three-dimensional optical lattices. *Physical Review Research*, **2019**, 1,	3.9	5
106	Simulating Dirac, Weyl and Maxwell equations with cold atoms in optical lattices. *Wuli Xuebao/Acta Physica Sinica*, **2019**, 68, 046701	0.6	1
105	Topological Maxwell Metal Bands in a Superconducting Qutrit. *Physical Review Letters*, **2018**, 120, 130503	7.4	53
104	Robust quantum state transfer via topological edge states in superconducting qubit chains. *Physical Review A*, **2018**, 98,	2.6	44
103	Topological quantum matter with cold atoms. *Advances in Physics*, **2018**, 67, 253-402	18.4	99
102	Topological metal bands with double-triple-point fermions in optical lattices. *Physical Review A*, **2018**, 98,	2.6	5
101	Topology-dependent quantum dynamics and entanglement-dependent topological pumping in superconducting qubit chains. *Physical Review A*, **2018**, 98,	2.6	9
100	Emergent pseudospin-1 Maxwell fermions with a threefold degeneracy in optical lattices. *Physical Review A*, **2017**, 96,	2.6	33
99	Circuit QED with qutrits: Coupling three or more atoms via virtual-photon exchange. *Physical Review A*, **2017**, 96,	2.6	10
98	Optimal conventional measurements for quantum-enhanced interferometry. *Physical Review A*, **2017**, 95,	2.6	8
97	Geometric atom interferometry with shortcuts to adiabaticity. *Physical Review A*, **2017**, 95,	2.6	6
96	Degenerate eigensubspace in a triangle-level system and its geometric quantum control. *Physical Review A*, **2017**, 96,	2.6	6
95	Generalized Hofstadter model on a cubic optical lattice: From nodal bands to the three-dimensional quantum Hall effect. *Physical Review A*, **2017**, 95,	2.6	9
94	Simultaneously exciting two atoms with photon-mediated Raman interactions. *Physical Review A*, **2017**, 95,	2.6	4
93	Measurement of the topological Chern number by continuous probing of a qubit subject to a slowly varying Hamiltonian. *Physical Review A*, **2017**, 96,	2.6	4
92	Anti-Kibble-Zurek behavior of a noisy transverse-field XY chain and its quantum simulation with two-level systems. *Physical Review B*, **2017**, 95,	3.3	6
91	Exploring topological double-Weyl semimetals with cold atoms in optical lattices. *Physical Review A*, **2017**, 95,	2.6	18

90	Topological phases of the kicked Harper-Kitaev model with ultracold atoms. *Journal of Physics Condensed Matter*, **2017**, 29, 035601	1.8	5
89	Proposal for implementing universal superadiabatic geometric quantum gates in nitrogen-vacancy centers. *Physical Review A*, **2016**, 93,	2.6	43
88	Quantum simulation of exotic PT-invariant topological nodal loop bands with ultracold atoms in an optical lattice. *Physical Review A*, **2016**, 93,	2.6	40
87	Experimental realization of stimulated Raman shortcut-to-adiabatic passage with cold atoms. *Nature Communications*, **2016**, 7, 12479	17.4	136
86	Simulating the Kibble-Zurek mechanism of the Ising model with a superconducting qubit system. *Scientific Reports*, **2016**, 6, 22667	4.9	22
85	Experimental test of the no-go theorem for continuous □epistemic models. *Scientific Reports*, **2016**, 6, 26519	4.9	28
84	Witnessing topological Weyl semimetal phase in a minimal circuit-QED lattice. *Quantum Science and Technology*, **2016**, 1, 015006	5.5	16
83	Topological quantum memory interfacing atomic and superconducting qubits. *Science China: Physics, Mechanics and Astronomy*, **2016**, 59, 1	3.6	5
82	Dynamics of Weyl quasiparticles in an optical lattice. *Physical Review A*, **2016**, 94,	2.6	17
81	Some topological states in one-dimensional cold atomic systems. *Annals of Physics*, **2015**, 358, 58-82	2.5	4
80	Robust interface between flying and topological qubits. *Scientific Reports*, **2015**, 5, 12233	4.9	20
79	Simulating the dynamical quantum Hall effect with superconducting qubits. *Physical Review A*, **2015** , 91,	2.6	7
78	Experimental observation of simultaneous wave and particle behavior in a narrowband single-photon wave packet. *Physical Review A*, **2015**, 91,	2.6	12
77	Simulation and measurement of the fractional particle number in one-dimensional optical lattices. *Physical Review A*, **2015**, 92,	2.6	18
76	Simulating and exploring Weyl semimetal physics with cold atoms in a two-dimensional optical lattice. *Physical Review A*, **2015**, 92,	2.6	40
75	Simulation and detection of photonic Chern insulators in a one-dimensional circuit-QED lattice. *Physical Review A*, **2015**, 92,	2.6	29
74	Quantum scattering model of energy transfer in photosynthetic complexes. *Laser Physics Letters*, **2015**, 12, 125201	1.5	
73	Realization of dark state in a three-dimensional transmon superconducting qutrit. *Applied Physics Letters*, **2015**, 107, 202601	3.4	6

72	Directly probing the Chern number of the Haldane model in optical lattices. *Journal of the Optical Society of America B: Optical Physics*, **2015**, 32, 2500	1.7	3
71	Energy levels of a spin□orbit-coupled Bose□Einstein condensate in a double-well potential. *Laser Physics*, **2015**, 25, 025501	1.2	2
70	Observation of coherent oscillation in single-passage Landau-Zener transitions. *Scientific Reports*, **2015**, 5, 8463	4.9	14
69	Rydberg-atom-based electrometry. *Wuli Xuebao/Acta Physica Sinica*, **2015**, 64, 160702	0.6	6
68	High fidelity quantum state transfer in electromechanical systems with intermediate coupling. *Scientific Reports*, **2014**, 4, 6237	4.9	25
67	Demonstration of geometric Landau-Zener interferometry in a superconducting qubit. *Physical Review Letters*, **2014**, 112, 027001	7.4	39
66	Subnatural-linewidth polarization-entangled photon pairs with controllable temporal length. *Physical Review Letters*, **2014**, 112, 243602	7.4	36
65	Experimental Generation of Narrow-Band Paired Photons: from Damped Rabi Oscillation to Group Delay. *Chinese Physics Letters*, **2014**, 31, 034205	1.8	2
64	Topological insulator and particle pumping in a one-dimensional shaken optical lattice. *Physical Review A*, **2014**, 90,	2.6	48
63	Valley-dependent gauge fields for ultracold atoms in square optical superlattices. *Physical Review A* , **2014**, 89,	2.6	5
62	Experimental observation of double coherent stimulated Raman adiabatic passages in three-level □ systems in a cold atomic ensemble. *Physical Review A*, **2014**, 90,	2.6	21
61	Efficient generation of hyperentangled photon pairs with controllable waveforms from cold atoms. *Journal of the Optical Society of America B: Optical Physics*, **2013**, 30, 362	1.7	1
60	Superfluid and magnetic states of an ultracold Bose gas with synthetic three-dimensional spin-orbit coupling in an optical lattice. *Physical Review A*, **2013**, 88,	2.6	25
59	Tunable interfaces for realizing universal quantum computation with topological qubits. *Physical Review A*, **2013**, 88,	2.6	21
58	Topological Bose-Mott insulators in a one-dimensional optical superlattice. *Physical Review Letters*, **2013**, 110, 075303	7.4	76
57	Bichromatic electromagnetically induced transparency in hot atomic vapors. *Physical Review A*, **2013**, 87,	2.6	11
56	Graphene-like physics in optical lattices. *Chinese Physics B*, **2013**, 22, 116106	1.2	8
55	Relativistic quantum effects of Dirac particles simulated by ultracold atoms. *Frontiers of Physics*, **2012**, 7, 31-53	3.7	54

54	Simulating Z2 topological insulators with cold atoms in a one-dimensional optical lattice. *Physical Review A*, **2012**, 85,	2.6	77
53	Complex quantum network model of energy transfer in photosynthetic complexes. *Physical Review E*, **2012**, 86, 061917	2.4	13
52	Simulation of the spin-boson model with superconducting phase qubit coupled to a transmission line. *Science China: Physics, Mechanics and Astronomy*, **2012**, 55, 1557-1561	3.6	9
51	Anomalous Temperature Effects of the Entanglement of Two Coupled Qubits in Independent Environments. *Chinese Physics Letters*, **2012**, 29, 040301	1.8	0
50	Particle-number fractionalization of a one-dimensional atomic Fermi gas with synthetic spin-orbit coupling. *Physical Review A*, **2012**, 86,	2.6	12
49	Topological superfluid transition induced by a periodically driven optical lattice. *Physical Review A*, **2012**, 86,	2.6	28
48	Proposal for a rotation-sensing interferometer with spin-orbit-coupled atoms. *Physical Review A*, **2012**, 85,	2.6	6
47	Josephson dynamics of a spin-orbit-coupled Bose-Einstein condensate in a double-well potential. *Physical Review A*, **2012**, 85,	2.6	51
46	Macroscopic Klein tunneling in spin-orbit-coupled Bose-Einstein condensates. *Physical Review A*, **2012**, 85,	2.6	38
45	Inelastic transport detection of spin quantum tunneling and spin relaxation in single-molecule magnets in the absence of a magnetic field. *Physical Review B*, **2012**, 85,	3.3	7
44	An experimental proposal to test dynamic quantum non-locality with single-atom interferometry. *Europhysics Letters*, **2011**, 94, 50006	1.6	2
43	Implementing multi-qubit entanglement of two-level systems inside a superconducting phase qubit. *European Physical Journal D*, **2011**, 61, 499-505	1.3	5
42	Probing a half-odd topological number sequence with cold atoms in a non-Abelian optical lattice. *Physical Review A*, **2011**, 84,	2.6	8
41	Probing non-abelian statistics of Majorana fermions in ultracold atomic superfluid. *Physical Review Letters*, **2011**, 106, 100404	7.4	108
40	Efficient Phase-Encoding Quantum Key Generation with Narrow-Band Single Photons. *Chinese Physics Letters*, **2011**, 28, 070307	1.8	8
39	Three-dimensional Dirac-like fermions in an optical lattice. *Physical Review A*, **2010**, 82,	2.6	11
38	Simulating and detecting the quantum spin Hall effect in the kagome optical lattice. *Physical Review A*, **2010**, 82,	2.6	40
37	Implementation of local and high-fidelity quantum conditional phase gates in a scalable two-dimensional ion trap. *Physics Letters, Section A: General, Atomic and Solid State Physics*, **2010**, 374, 1425-1430	2.3	8

36	Dark periods in Rabi oscillations of a superconducting phase qubit coupled to a microscopic two-level system. *Physical Review B*, **2009**, 80,	3.3	4
35	Implementing topological quantum manipulation with superconducting circuits. *Physical Review A*, **2009**, 79,	2.6	18
34	Quantum computation in a decoherence-free subspace with superconducting devices. *European Physical Journal D*, **2009**, 55, 223-228	1.3	12
33	Delocalization of relativistic dirac particles in disordered one-dimensional systems and its implementation with cold atoms. *Physical Review Letters*, **2009**, 102, 210403	7.4	52
32	Sudden death of distillability in qutrit-qutrit systems. *Physical Review A*, **2009**, 80,	2.6	39
31	Physical implementation of topologically decoherence-protected superconducting qubits. *Physical Review A*, **2008**, 77,	2.6	22
30	GEOMETRIC PHASES AND QUANTUM PHASE TRANSITIONS. *International Journal of Modern Physics B*, **2008**, 22, 561-581	1.1	34
29	Detecting unambiguously non-Abelian geometric phases with trapped ions. *New Journal of Physics*, **2008**, 10, 043031	2.9	12
28	Realizing and detecting the quantum Hall effect without landau levels by using ultracold atoms. *Physical Review Letters*, **2008**, 101, 246810	7.4	108
27	Quantum jumps between macroscopic quantum states of a superconducting qubit coupled to a microscopic two-level system. *Physical Review Letters*, **2008**, 101, 157001	7.4	30
26	Simulation and detection of dirac fermions with cold atoms in an optical lattice. *Physical Review Letters*, **2007**, 98, 260402	7.4	249
25	Arbitrary-speed quantum gates within large ion crystals through minimum control of laser beams. *Europhysics Letters*, **2006**, 73, 485-491	1.6	72
24	Trapped ion quantum computation with transverse phonon modes. *Physical Review Letters*, **2006**, 97, 050505	7.4	113
23	Scaling of geometric phases close to the quantum phase transition in the XY spin chain. *Physical Review Letters*, **2006**, 96, 077206	7.4	206
22	Spin Hall effects for cold atoms in a light-induced gauge potential. *Physical Review Letters*, **2006**, 97, 240401	7.4	193
21	Nonadiabatic geometric quantum computation using a single-loop scenario. *Physical Review A*, **2005**, 71,	2.6	33
20	Geometric quantum computation and multiqubit entanglement with superconducting qubits inside a cavity. *Physical Review Letters*, **2005**, 94, 100502	7.4	123
19	Geometric quantum gates that are robust against stochastic control errors. *Physical Review A*, **2005**, 72,	2.6	119

18	Unconventional geometric quantum computation. *Physical Review Letters*, **2003**, 91, 187902	7.4	196
17	Universal quantum gates based on a pair of orthogonal cyclic states: Application to NMR systems. *Physical Review A*, **2003**, 67,	2.6	67
16	Quantum-information processing using Josephson junctions coupled through cavities. *Physical Review A*, **2003**, 68,	2.6	40
15	Testing Bell's inequality and measuring the entanglement using superconducting nanocircuits. *Physical Review A*, **2003**, 68,	2.6	14
14	Geometric phase shift in quantum computation using superconducting nanocircuits: Nonadiabatic effects. *Physical Review A*, **2002**, 66,	2.6	46
13	Conductance of a quantum point contact in the presence of spin–orbit interaction. *Journal of Applied Physics*, **2002**, 91, 6545	2.5	10
12	Charge pumping in a quantum wire driven by a series of local time-periodic potentials. *Physical Review B*, **2002**, 65,	3.3	34
11	Implementation of universal quantum gates based on nonadiabatic geometric phases. *Physical Review Letters*, **2002**, 89, 097902	7.4	228
10	Conductance of a quantum point contact in the presence of a scanning probe microscope tip. *Physical Review B*, **2002**, 65,	3.3	20
9	Geometric quantum computation using superconducting nanocircuits. *Physica C: Superconductivity and Its Applications*, **2001**, 364-365, 213-215	1.3	1
8	Nonadiabatic noncyclic geometric phase of a spin-12 particle subject to an arbitrary magnetic field. *Physical Review B*, **2000**, 61, 1142-1148	3.3	38
7	Nonadiabatic noncyclic geometric phase and ensemble average spectrum of conductance in disordered mesoscopic rings with spin-orbit coupling. *Physical Review Letters*, **2000**, 85, 1076-9	7.4	41
6	Nonadiabatic noncyclic geometric phase and persistent current in one-dimensional rings. *Physical Review B*, **1999**, 60, 10668-10671	3.3	6
5	Berry phase and Aharonov–Bohm effect in one-dimensional mesoscopic ring with an adiabatic rotating potential. *Solid State Communications*, **1999**, 113, 233-237	1.6	1
4	Localization and mesoscopic persistent current in a disordered metal ring. *Physical Review B*, **1996**, 53, 12597-12600	3.3	2
3	The periodic orbit magnetic ordering transition on mesoscopic tubes. *Solid State Communications*, **1995**, 95, 765-769	1.6	3
2	Persistent currents induced by spin-orbit coupling in one-dimensional mesoscopic rings. *Physical Review B*, **1995**, 52, 7814-7817	3.3	8
1	Persistent currents in a mesoscopic ring in an inhomogeneous magnetic field. *Physics Letters, Section A: General, Atomic and Solid State Physics*, **1994**, 187, 74-78	2.3	5