

# Zheng-Xin Liu

## List of Publications by Year in descending order

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48  
papers

2,686  
citations

279487

23  
h-index

214527

47  
g-index

48  
all docs

48  
docs citations

48  
times ranked

1850  
citing authors

#	ARTICLE	IF	CITATIONS
1	Magnon condensation in dimerized antiferromagnets with spin-orbit coupling. Physical Review B, 2022, 105, .	1.1	4
2	Fractionalizing global symmetry on looplike topological excitations. Physical Review B, 2022, 105, .	1.1	4
3	A Hamiltonian approach for obtaining irreducible projective representations and the $k \rightarrow p$ perturbation for anti-unitary symmetry groups. Journal of Physics A: Mathematical and Theoretical, 2021, 54, 265202.	0.7	2
4	Identification of magnetic interactions and high-field quantum spin liquid in $\hat{\mu}$ -RuCl <sub>3</sub> . Nature Communications, 2021, 12, 4007.	5.8	28
5	Symmetry-protected nodal points and nodal lines in magnetic materials. Physical Review B, 2021, 103, .	1.1	13
6	Effective model for rare-earth Kitaev materials and its classical Monte Carlo simulation*. Chinese Physics B, 2021, 30, 087503.	0.7	3
7	Thermal Properties and Instability of a U(1) Spin Liquid on the Triangular Lattice. Physical Review Letters, 2021, 127, 127205.	2.9	4
8	Phase diagram for hole-doped Kitaev systems on the honeycomb lattice. Physical Review B, 2021, 104, .	1.1	2
9	Field-induced quantum spin disordered state in spin-1/2 honeycomb magnet Na <sub>2</sub> Co <sub>2</sub> TeO <sub>6</sub> . Nature Communications, 2021, 12, 5559.	5.8	57
10	Eightfold Degenerate Fermions in Two Dimensions. Physical Review Letters, 2021, 127, 176401.	2.9	11
11	Multinode quantum spin liquids on the honeycomb lattice. Physical Review B, 2020, 102, .	1.1	8
12	Symmetry-protected gapless spin liquids on the strained honeycomb lattice. Physical Review B, 2020, 102, .	1.1	9
13	Topological superconductivity by doping symmetry-protected topological states. Physical Review Research, 2020, 2, .	1.3	1
14	One Proximate Kitaev Spin Liquid in the $K\hat{a}^{\wedge}J\hat{a}^{\wedge}$ Model on the Honeycomb Lattice. Physical Review Letters, 2019, 123, 197201.	2.9	52
15	Dirac and Chiral Quantum Spin Liquids on the Honeycomb Lattice in a Magnetic Field. Physical Review Letters, 2018, 120, 187201.	2.9	44
16	Irreducible projective representations and their physical applications. Journal of Physics A: Mathematical and Theoretical, 2018, 51, 025207.	0.7	7
17	Non-Abelian $S_3$ chiral spin liquid on the kagome lattice. Physical Review B, 2018, 97, .	1.1	14
18	Physical origins of ruled surfaces on the reduced density matrices geometry. Science China: Physics, Mechanics and Astronomy, 2017, 60, 1.	2.0	6

#	ARTICLE	IF	CITATIONS
19	Fermionic symmetry-protected topological state in strained graphene. Physical Review B, 2017, 96, .	1.1	4
20	Gapless Spin Excitations in the Field-Induced Quantum Spin Liquid Phase of $\text{RuCl}_2$ . Physical Review Letters, 2017, 119, 227208.	2.9	171
21	High-pressure magnetization and NMR studies of $\text{RuCl}_2$ . Physical Review B, 2017, 96, .	1.1	4
22	Symmetry-Protected Topological States for Interacting Fermions in Alkaline-Earth-Like Atoms. Physical Review Letters, 2017, 119, 185701.	2.9	24
23	Chiral topological orders in an optical Raman lattice. New Journal of Physics, 2016, 18, 035004.	1.2	13
24	Symmetry enrichment in three-dimensional topological phases. Physical Review B, 2016, 94, .	1.1	23
25	Geometry of reduced density matrices for symmetry-protected topological phases. Physical Review A, 2016, 93, .	1.0	12
26	Fermionic symmetry-protected topological phase induced by interactions. Physical Review B, 2015, 91, .	1.1	6
27	Symmetry protected topological phases in spin-1 ladders and their phase transitions. Annals of Physics, 2015, 362, 551-567.	1.0	5
28	Topological order in Gutzwiller wave functions. Physical Review B, 2014, 90, .	1.1	29
29	Microscopic Realization of Two-Dimensional Bosonic Topological Insulators. Physical Review Letters, 2014, 113, 267206.	2.9	30
30	Gutzwiller approach for elementary excitations in $S=1$ antiferromagnetic chains. New Journal of Physics, 2014, 16, 083031.	1.2	8
31	Topology and criticality in the resonating Affleck-Kennedy-Lieb-Tasaki loop spin liquid states. Physical Review B, 2014, 89, .	1.1	32
32	Symmetry protected topological orders and the group cohomology of their symmetry group. Physical Review B, 2013, 87, .	1.1	832
33	Manipulating Topological Edge Spins in a One-Dimensional Optical Lattice. Physical Review Letters, 2013, 110, 076401.	2.9	109
34	Symmetry-Protected Quantum Spin Hall Phases in Two Dimensions. Physical Review Letters, 2013, 110, 067205.	2.9	69
35	Symmetry-Protected Topological Orders in Interacting Bosonic Systems. Science, 2012, 338, 1604-1606.	6.0	477
36	Symmetry-protected topological phases in spin ladders with two-body interactions. Physical Review B, 2012, 86, .	1.1	26

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37	Gutzwiller projected wave functions in the fermionic theory of $S=1$ spin chains. Physical Review B, 2012, 85, .	1.1	23
38	Symmetry-protected topological orders of one-dimensional spin systems with $\langle \mathbf{m}_i \cdot \mathbf{m}_{i+1} \rangle = D$ . Physical Review B, 2011, 84, .	1.1	19
39	Two-dimensional symmetry-protected topological orders and their protected gapless edge excitations. Physical Review B, 2011, 84, .	1.1	262
40	Gapped quantum phases for the $S=1$ spin chain with $\langle \mathbf{m}_i \cdot \mathbf{m}_{i+1} \rangle = D$ . Physical Review B, 2011, 84, .	1.1	20
41	Raman signature of the $U(1)$ Dirac spin-liquid state in the spin- $1$ Kagome system. Physical Review B, 2010, 81, .	1.1	47
42	Anomalous Hall effect in Fe/Gd bilayers. Europhysics Letters, 2010, 90, 27004.	0.7	31
43	Possibility of $S=1$ spin liquids with fermionic spinons on triangular lattices. Physical Review B, 2010, 81, .	1.1	31
44	Fermionic theory for quantum antiferromagnets with spin- $1$ kagome. Physical Review B, 2010, 82, .	1.1	29
45	Topologically distinct classes of valence-bond solid states with their parent Hamiltonians. Physical Review B, 2009, 80, .	1.1	34
46	Topological structures of adiabatic phase for multi-level quantum systems. Journal of Physics A: Mathematical and Theoretical, 2007, 40, 1661-1676.	0.7	0
47	Tightly localized stationary pulses in a multilevel atomic system. Physical Review A, 2007, 75, .	1.0	6
48	Possibility of inhomogeneous coupling leading to decoherence in an electromagnetically-induced-transparency quantum-memory process. Physical Review A, 2006, 73, .	1.0	7