

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	Symmetry protected topological orders and the group cohomology of their symmetry group. Physical Review B, 2013, 87, .	1.1	832
2	Symmetry-Protected Topological Orders in Interacting Bosonic Systems. Science, 2012, 338, 1604-1606.	6.0	477
3	Two-dimensional symmetry-protected topological orders and their protected gapless edge excitations. Physical Review B, 2011, 84, .	1.1	262
4	Gapless Spin Excitations in the Field-Induced Quantum Spin Liquid Phase of RuCl_2 . Physical Review Letters, 2017, 119, 227208.	2.9	171
5	Manipulating Topological Edge Spins in a One-Dimensional Optical Lattice. Physical Review Letters, 2013, 110, 076401.	2.9	109
6	Symmetry-Protected Quantum Spin Hall Phases in Two Dimensions. Physical Review Letters, 2013, 110, 067205.	2.9	69
7	Field-induced quantum spin disordered state in spin-1/2 honeycomb magnet $\text{Na}_2\text{Co}_2\text{TeO}_6$. Nature Communications, 2021, 12, 5559.	5.8	57
8	One Proximate Kitaev Spin Liquid in the $\text{KJ}\hat{\alpha}$ Model on the Honeycomb Lattice. Physical Review Letters, 2019, 123, 197201.	2.9	52
9	Raman signature of the $U(1)$ Dirac spin-liquid state in the spin- 1 Kagome system. Physical Review B, 2010, 81, .	1.1	47
10	Dirac and Chiral Quantum Spin Liquids on the Honeycomb Lattice in a Magnetic Field. Physical Review Letters, 2018, 120, 187201.	2.9	44
11	High-pressure magnetization and NMR studies of $\text{KJ}\hat{\alpha}$. Physical Review B, 2017, 96, .	1.1	47
12	Topologically distinct classes of valence-bond solid states with their parent Hamiltonians. Physical Review B, 2009, 80, .	1.1	34
13	Topology and criticality in the resonating Affleck-Kennedy-Lieb-Tasaki loop spin liquid states. Physical Review B, 2014, 89, .	1.1	32
14	Anomalous Hall effect in Fe/Gd bilayers. Europhysics Letters, 2010, 90, 27004.	0.7	31
15	Possibility of S_1 spin liquids with fermionic spinons on triangular lattices. Physical Review B, 2010, 81, .	1.1	31
16	Microscopic Realization of Two-Dimensional Bosonic Topological Insulators. Physical Review Letters, 2014, 113, 267206.	2.9	30
17	Fermionic theory for quantum antiferromagnets with spin S . Physical Review B, 2010, 82, .	1.1	29
18	Microscopic realization of a topological order in Gutzwiller wave functions. Physical Review B, 2014, 90, .	1.1	29

#	ARTICLE	IF	CITATIONS
19	Identification of magnetic interactions and high-field quantum spin liquid in $\hat{I}\pm\text{-RuCl}_3$. Nature Communications, 2021, 12, 4007.	5.8	28
20	Symmetry-protected topological phases in spin ladders with two-body interactions. Physical Review B, 2012, 86, .	1.1	26
21	Symmetry-Protected Topological States for Interacting Fermions in Alkaline-Earth-Like Atoms. Physical Review Letters, 2017, 119, 185701.	2.9	24
22	Gutzwiller projected wave functions in the fermionic theory of $S=1$ spin chains. Physical Review B, 2012, 85, .	1.1	23
23	Symmetry enrichment in three-dimensional topological phases. Physical Review B, 2016, 94, .	1.1	23
24	Gapped quantum phases for the $S=1$ spin chain with $D=2$ and h . Physical Review B, 2011, 84, .	1.1	20
25	Symmetry-protected topological orders of one-dimensional spin systems with $D=2$ and h . Physical Review B, 2011, 84, .	1.1	19
26	Chiral topological orders in an optical Raman lattice. New Journal of Physics, 2016, 18, 035004.	1.2	13
27	Non-Abelian $S=1$ chiral spin liquid on the kagome lattice. Physical Review B, 2018, 97, .	1.1	13
28	Symmetry-protected nodal points and nodal lines in magnetic materials. Physical Review B, 2021, 103, .	1.1	13
29	Geometry of reduced density matrices for symmetry-protected topological phases. Physical Review A, 2016, 93, .	1.0	12
30	Eightfold Degenerate Fermions in Two Dimensions. Physical Review Letters, 2021, 127, 176401.	2.9	11
31	Symmetry-protected gapless spin liquids on the strained honeycomb lattice. Physical Review B, 2020, 102, .	1.1	9
32	Gutzwiller approach for elementary excitations in $S=1$ antiferromagnetic chains. New Journal of Physics, 2014, 16, 083031.	1.2	8
33	Multinode quantum spin liquids on the honeycomb lattice. Physical Review B, 2020, 102, .	1.1	8
34	Possibility of inhomogeneous coupling leading to decoherence in an electromagnetically-induced-transparency quantum-memory process. Physical Review A, 2006, 73, .	1.0	7
35	Irreducible projective representations and their physical applications. Journal of Physics A: Mathematical and Theoretical, 2018, 51, 025207.	0.7	7
36	Tightly localized stationary pulses in a multilevel atomic system. Physical Review A, 2007, 75, .	1.0	6

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37	Fermionic symmetry-protected topological phase induced by interactions. <i>Physical Review B</i> , 2015, 91, .	1.1	6
38	Physical origins of ruled surfaces on the reduced density matrices geometry. <i>Science China: Physics, Mechanics and Astronomy</i> , 2017, 60, 1.	2.0	6
39	Symmetry protected topological phases in spin-1 ladders and their phase transitions. <i>Annals of Physics</i> , 2015, 362, 551-567.	1.0	5
40	Fermionic symmetry-protected topological state in strained graphene. <i>Physical Review B</i> , 2017, 96, .	1.1	4
41	Thermal Properties and Instability of a U(1) Spin Liquid on the Triangular Lattice. <i>Physical Review Letters</i> , 2021, 127, 127205.	2.9	4
42	Magnon condensation in dimerized antiferromagnets with spin-orbit coupling. <i>Physical Review B</i> , 2022, 105, .	1.1	4
43	Fractionalizing global symmetry on looplike topological excitations. <i>Physical Review B</i> , 2022, 105, .	1.1	4
44	Effective model for rare-earth Kitaev materials and its classical Monte Carlo simulation*. <i>Chinese Physics B</i> , 2021, 30, 087503.	0.7	3
45	A Hamiltonian approach for obtaining irreducible projective representations and the $k \rightarrow p$ perturbation for anti-unitary symmetry groups. <i>Journal of Physics A: Mathematical and Theoretical</i> , 2021, 54, 265202.	0.7	2
46	Phase diagram for hole-doped Kitaev systems on the honeycomb lattice. <i>Physical Review B</i> , 2021, 104, .	1.1	2
47	Topological superconductivity by doping symmetry-protected topological states. <i>Physical Review Research</i> , 2020, 2, .	1.3	1
48	Topological structures of adiabatic phase for multi-level quantum systems. <i>Journal of Physics A: Mathematical and Theoretical</i> , 2007, 40, 1661-1676.	0.7	0