Erhai Zhao

List of Publications by Year
in descending order

61 papers	1,772 citations	257450 24 h-index	265206 42 g-index
63 all docs	63 docs citations	63 times ranked	1467 citing authors

#	Article	IF	Citations
1	Topological states in a ladder-like optical lattice containing ultracold atoms in higher orbital bands. Nature Communications, 2013, 4, 1523.	12.8	138
2	BCS-BEC Crossover on the Two-Dimensional Honeycomb Lattice. Physical Review Letters, 2006, 97, 230404.	7.8	118
3	Counter-propagating Edge Modes and Topological Phases of a Kicked Quantum Hall System. Physical Review Letters, 2014, 112, 026805.	7.8	90
4	Dynamical Singularities of Floquet Higher-Order Topological Insulators. Physical Review Letters, 2020, 124, 057001.	7.8	90
5	Orbital Order in Mott Insulators of Spinless<mml:math xmlns:mml="http://www.w3.org/1998/Math/MathML" display="inline"><mml:mi>p</mml:mi></mml:math>-Band Fermions. Physical Review Letters, 2008, 100, 160403.	7.8	80
6	Nonequilibrium superconductivity near spin-active interfaces. Physical Review B, 2004, 70, .	3.2	77
7	Knots and Non-Hermitian Bloch Bands. Physical Review Letters, 2021, 126, 010401.	7.8	77
8	Theory of quasi-one-dimensional imbalanced Fermi gases. Physical Review A, 2008, 78, .	2.5	74
9	Topological Insulator Bi2Se3 Nanowire High Performance Field-Effect Transistors. Scientific Reports, 2013, 3, .	3.3	73
10	Chern numbers hiding in time-of-flight images. Physical Review A, 2011, 84, .	2.5	61
11	Topological circuits of inductors and capacitors. Annals of Physics, 2018, 399, 289-313.	2.8	55
12	Phase Modulated Thermal Conductance of Josephson Weak Links. Physical Review Letters, 2003, 91, 077003.	7.8	53
13	Self-consistent slave rotor mean-field theory for strongly correlated systems. Physical Review B, 2007, 76, .	3.2	53
14	Heat transport through Josephson point contacts. Physical Review B, 2004, 69, .	3.2	49
15	Floquet edge states in a harmonically driven integer quantum Hall system. Physical Review B, 2014, 90, .	3.2	44
16	Topological Invariants for Quantum Quench Dynamics from Unitary Evolution. Physical Review Letters, 2020, 124, 160402.	7.8	44
17	Analytic Thermodynamics and Thermometry of Gaudin-Yang Fermi Gases. Physical Review Letters, 2009, 103, 140404.	7.8	43
18	Bond Order Solid of Two-Dimensional Dipolar Fermions. Physical Review Letters, 2012, 108, 145301.	7.8	43

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19	Theory of nonequilibrium spin transport and spin-transfer torque in superconducting-ferromagnetic nanostructures. Physical Review B, 2008, 78, .	3.2	38
20	Current-phase relation for Josephson effect through helical metal. Physical Review B, 2012, 86, .	3.2	38
21	Liquid crystal phases of ultracold dipolar fermions on a lattice. Physical Review B, 2010, 81, .	3.2	35
22	Microscopic simulation of superconductor/topological insulator proximity structures. Physical Review B, 2011, 83, .	3.2	30
23	Absence of Long-Range Order in a Triangular Spin System with Dipolar Interactions. Physical Review Letters, 2018, 120, 187202.	7.8	30
24	Quantum Phases of Quadrupolar Fermi Gases in Optical Lattices. Physical Review Letters, 2013, 110, 155301.	7.8	28
25	Modulated pair condensate ofp-orbital ultracold fermions. Physical Review A, 2010, 82, .	2.5	24
26	Effective action approach to thep-band Mott insulator and superfluid transition. Physical Review A, 2011, 83, .	2.5	22
27	Dynamics of Spin Transport in Voltage-Biased Josephson Junctions. Physical Review Letters, 2007, 98, 206601.	7.8	20
28	Mott scattering at the interface between a metal and a topological insulator. Physical Review B, 2010, 82, .	3.2	17
29	Temperature dependent Fermi arcs in the normal state of the underdoped cuprate superconductors. Physical Review B, 2007, 75, .	3.2	15
30	Unconventional spin-density waves in dipolar Fermi gases. Physical Review A, 2013, 87, .	2.5	15
31	Frustrated Magnetism of Dipolar Molecules on a Square Optical Lattice: Prediction of a Quantum Paramagnetic Ground State. Physical Review Letters, 2017, 119, 050401.	7.8	14
32	Renormalization group analysis of dipolar Heisenberg model on square lattice. Physical Review B, 2018, 97, .	3.2	14
33	Illuminating the bulk-boundary correspondence of a non-Hermitian stub lattice with Majorana stars. Physical Review B, 2021, 104, .	3.2	14
34	Orbital order of spinless fermions near an optical Feshbach resonance. Physical Review A, 2011, 84, .	2.5	13
35	Exactly Solvable Points and Symmetry Protected Topological Phases of Quantum Spins on a Zig-Zag Lattice. Physical Review Letters, 2019, 122, 180401.	7.8	13
36	Rise and fall of plaquette order in the Shastry-Sutherland magnet revealed by pseudofermion functional renormalization group. Physical Review B, 2022, 105, .	3.2	12

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37	Scrambling dynamics and many-body chaos in a random dipolar spin model. Physical Review A, 2019, 99, .	2.5	11
38	Excitations in Correlated Superfluids near a Continuous Transition into a Supersolid. Physical Review Letters, 2006, 96, 105303.	7.8	10
39	<mml:math xmlns:mml="http://www.w3.org/1998/Math/MathML"><mml:mi>f</mml:mi></mml:math> -wave superfluidity from repulsive interaction in Rydberg-dressed Fermi gas. Physical Review A, 2020, 101, .	2.5	10
40	Spin-Orbital Exchange of Strongly Interacting Fermions in thepBand of a Two-Dimensional Optical Lattice. Physical Review Letters, 2015, 114, 100406.	7.8	9
41	Nearly flat Andreev bound states in superconductor-topological insulator hybrid structures. Physical Review B, 2012, 86, .	3.2	8
42	A continuum of compass spin models on the honeycomb lattice. New Journal of Physics, 2016, 18, 053040.	2.9	8
43	An Effective Field Theory for One-dimensional Polarized Fermi Gases. Journal of Low Temperature Physics, 2010, 158, 36-42.	1.4	7
44	Anatomy of a Periodically Driven p-Wave Superconductor. Zeitschrift Fur Naturforschung - Section A Journal of Physical Sciences, 2016, 71, 883-895.	1.5	7
45	Effective theory of interacting fermions in shaken square optical lattices. Physical Review A, 2017, 95, .	2.5	7
46	Topological Phases of Dipolar Particles in Elongated Wannier Orbitals. Physical Review Letters, 2010, 104, 165303.	7.8	6
47	SnTe field effect transistors and the anomalous electrical response of structural phase transition. Applied Physics Letters, 2014, 105, .	3.3	6
48	Competing many-body instabilities in two-dimensional dipolar Fermi gases. Physical Review A, 2016, 94, .	2.5	5
49	Chiral and counter-propagating Majorana fermions in a p-wave superconductor. New Journal of Physics, 2019, 21, 123014.	2.9	5
50	Quench dynamics of Hopf insulators. Physical Review B, 2020, 101, .	3.2	4
51	Differential conductance anomaly in superconducting quantum point contacts. Physical Review B, 2009, 80, .	3.2	3
52	Cosine edge modes in a periodically driven quantum system. Physical Review B, 2016, 94, .	3.2	3
53	High performance topological insulator nanowire field-effect transistors. , 2013, , .		2
54	Dynamical Process of Excitation Fusion in Polymers. Journal of Chemical Information and Computer Sciences, 2000, 40, 542-544.	2.8	0

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55	Nonequilibrium Spin-transfer Torque in SFNFS Junctions. AIP Conference Proceedings, 2006, , .	0.4	0
56	Temperature scaling of Fermi arcs in the normal state of the underdoped cuprate superconductors. Physica B: Condensed Matter, 2008, 403, 1104-1106.	2.7	0
57	High performance Bi<inf>2</inf>Se<inf>3</inf> nanowire field-effect transistors. , 2013, , .		0
58	Weyl nodes in periodic structures of superconductors and spin-active materials. Philosophical Transactions Series A, Mathematical, Physical, and Engineering Sciences, 2018, 376, 20150151.	3.4	0
59	Topological Insulators with Ultracold Atoms. Springer Series on Atomic, Optical, and Plasma Physics, 2013, , 201-215.	0.2	0
60	Tuning the topology of p -wave superconductivity in an analytically solvable two-band model. Physical Review B, 2020, 102, .	3.2	0
61	Learning a compass spin model with neural network quantum states. Journal of Physics Condensed Matter, 2022, 34, 125802.	1.8	0