

Cenke Xu

List of Publications by Year in descending order

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74
papers

3,357
citations

136885

32
h-index

143943

57
g-index

75
all docs

75
docs citations

75
times ranked

2268
citing authors

#	ARTICLE	IF	CITATIONS
1	Stability of the quantum spin Hall effect: Effects of interactions, disorder, and Z_2 topology. Physical Review B, 2006, 73, .	1.1	502
2	Topological Superconductivity in Twisted Multilayer Graphene. Physical Review Letters, 2018, 121, 087001.	2.9	353
3	Deconfined Quantum Critical Points: Symmetries and Dualities. Physical Review X, 2017, 7, .	2.8	221
4	Symmetry-protected topological states of interacting fermions and bosons. Physical Review B, 2014, 90, .	1.1	94
5	Classification and description of bosonic symmetry protected topological phases with semiclassical nonlinear sigma models. Physical Review B, 2015, 91, .	1.1	84
6	Instability of the non-Fermi-liquid state of the Sachdev-Ye-Kitaev model. Physical Review B, 2017, 95, .	1.1	84
7	Duality between the Deconfined Quantum-Critical Point and the Bosonic Topological Transition. Physical Review X, 2017, 7, .	2.8	82
8	Wave functions of bosonic symmetry protected topological phases. Physical Review B, 2013, 87, .	1.1	80
9	Strong-Weak Coupling Self-Duality in the Two-Dimensional Quantum Phase Transition of p+ip Superconducting Arrays. Physical Review Letters, 2004, 93, 047003.	2.9	76
10	Self-dual quantum electrodynamics as boundary state of the three-dimensional bosonic topological insulator. Physical Review B, 2015, 92, .	1.1	68
11	Fluctuating spin density waves in metals. Physical Review B, 2009, 80, .	1.1	66
12	Dynamical signature of fractionalization at a deconfined quantum critical point. Physical Review B, 2018, 98, .	1.1	65
13	Resonating plaquette phases in SU(4) Heisenberg antiferromagnet. Physical Review B, 2008, 77, .	1.1	58
14	Plaquette order and deconfined quantum critical point in the spin-1 bilinear-biquadratic Heisenberg model on the honeycomb lattice. Physical Review B, 2012, 85, .	1.1	58
15	Wave Function and Strange Correlator of Short-Range Entangled States. Physical Review Letters, 2014, 112, 247202.	2.9	56
16	Duality between $\langle \mathcal{O} \rangle$ and $\langle \mathcal{O}^2 \rangle$ quantum critical points. Physics Reports, 2019, 827, 1-48.	10.3	55
17	Bond algebraic liquid phase in strongly correlated multicolor cold atom systems. Physical Review B, 2007, 75, .	1.1	54
18	Monte Carlo Study of Lattice Compact Quantum Electrodynamics with Fermionic Matter: The Parent State of Quantum Phases. Physical Review X, 2019, 9, .	2.8	54

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19	Entanglement holographic mapping of many-body localized system by spectrum bifurcation renormalization group. Physical Review B, 2016, 93, .	1.1	51
20	Spin Liquid Phases for Spin-1 Systems on the Triangular Lattice. Physical Review Letters, 2012, 108, 087204.	2.9	49
21	Fractionalization in Josephson junction arrays hinged by quantum spin Hall edges. Physical Review B, 2010, 81, .	1.1	48
22	Coupled-wire description of the correlated physics in twisted bilayer graphene. Physical Review B, 2019, 99, .	1.1	46
23	Duality and bosonization of $2+1$ -dimensional Majorana fermions. Physical Review B, 2017, 95, .		
24	Lieb-Schultz-Mattis theorem and its generalizations from the perspective of the symmetry-protected topological phase. Physical Review B, 2018, 97, .	1.1	44
25	Bona fide interaction-driven topological phase transition in correlated symmetry-protected topological states. Physical Review B, 2016, 93, .	1.1	42
26	Model for continuous thermal metal to insulator transition. Physical Review B, 2017, 96, .	1.1	42
27	Symmetric Fermion Mass Generation as Deconfined Quantum Criticality. Physical Review X, 2018, 8, .	2.8	42
28	From bosonic topological transition to symmetric fermion mass generation. Physical Review B, 2018, 97, .	1.1	36
29	Quantum phase transitions around the staggered valence-bond solid. Physical Review B, 2011, 84, .	1.1	35
30	Out-of-time-order correlation in marginal many-body localized systems. Physical Review B, 2017, 95, .	1.1	35
31	Three-dimensional symmetry-protected topological phase close to antiferromagnetic Néel order. Physical Review B, 2013, 87, .	1.1	34
32	Quantum simulation of the non-fermi-liquid state of Sachdev-Ye-Kitaev model. Npj Quantum Information, 2019, 5, .	2.8	34
33	Dynamical models and the phase ordering kinetics of the $1+1$ spinor condensate. Physical Review B, 2007, 76, .	1.1	32
34	Majorana Liquids: The Complete Fractionalization of the Electron. Physical Review Letters, 2010, 105, 057201.	2.9	32
35	Enhanced thermal Hall effect in the square-lattice Néel state. Nature Physics, 2019, 15, 1290-1294.	6.5	32
36	Nonperturbative Effects of a Topological Theta Term on Principal Chiral Nonlinear Sigma Models in $2+1$ Dimensions. Physical Review Letters, 2013, 110, 200405.	2.9	29

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37	Bridging fermionic and bosonic short range entangled states. <i>New Journal of Physics</i> , 2015, 17, 075010.	1.2	28
38	Ferromagnetism and spin-valley liquid states in moiré correlated insulators. <i>Physical Review B</i> , 2019, 100, .	1.1	28
39	UNCONVENTIONAL QUANTUM CRITICAL POINTS. <i>International Journal of Modern Physics B</i> , 2012, 26, 1230007.	1.0	27
40	Quantum phase transitions between bosonic symmetry-protected topological states without sign problem: Nonlinear sigma model with a topological term. <i>Physical Review B</i> , 2016, 93, .	1.1	27
41	Continuous N ^e -VBS quantum phase transition in non-local one-dimensional systems with SO(3) symmetry. <i>SciPost Physics</i> , 2021, 10, .	1.5	24
42	Quantum critical point of Dirac fermion mass generation without spontaneous symmetry breaking. <i>Physical Review B</i> , 2016, 94, .	1.1	23
43	Candidate theory for the strange metal phase at a finite-energy window. <i>Physical Review B</i> , 2018, 98, .	1.1	22
44	The new iron age. <i>Nature Physics</i> , 2008, 4, 898-900.	6.5	21
45	Square-Lattice Algebraic Spin Liquid with SO(5) Symmetry. <i>Physical Review Letters</i> , 2008, 100, 137201.	2.9	21
46	Topological number and fermion Green's function for strongly interacting topological superconductors. <i>Physical Review B</i> , 2014, 90, .	1.1	21
47	Deconfined quantum critical point on the triangular lattice. <i>Physical Review B</i> , 2018, 97, .	1.1	21
48	Two-dimensional symmetry-protected topological phases with PSU(N) and time-reversal symmetry. <i>Physical Review B</i> , 2013, 88, .	1.1	19
49	Series of (2+1)-dimensional stable self-dual interacting conformal field theories. <i>Physical Review B</i> , 2016, 94, .	1.1	19
50	Quantum Monte Carlo study of strange correlator in interacting topological insulators. <i>Physical Review B</i> , 2015, 92, .	1.1	18
51	Emergent Fermi Surface in a Triangular-Lattice SU(4) Quantum Antiferromagnet. <i>Physical Review Letters</i> , 2020, 125, 117202.	2.9	17
52	Universal features of higher-form symmetries at phase transitions. <i>SciPost Physics</i> , 2021, 11, .	1.5	16
53	Construction of Fractal Order and Phase Transition with Rydberg Atoms. <i>Physical Review Letters</i> , 2022, 128, 017601.	2.9	15
54	Global phase diagram for the spin-1 antiferromagnet with uniaxial anisotropy on the kagome lattice. <i>Physical Review B</i> , 2007, 76, .	1.1	14

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55	Visualizing a bosonic symmetry protected topological phase in an interacting fermion model. Physical Review B, 2016, 94, .	1.1	14
56	Topological nematic phase in Dirac semimetals. Physical Review B, 2016, 93, .	1.1	13
57	Bilayer Graphene as a Platform for Bosonic Symmetry-Protected Topological States. Physical Review Letters, 2017, 118, 126801.	2.9	13
58	Geometric criticality for transitions between plaquette phases in integer-spin kagome XXZ antiferromagnets. Physical Review B, 2005, 72, .	1.1	11
59	Self-duality protected multicriticality in deconfined quantum phase transitions. Physical Review B, 2021, 104, .	1.1	11
60	Bosonic short-range entangled states beyond group cohomology classification. Physical Review B, 2015, 91, .	1.1	10
61	Topological Quantum Liquids with Quaternion Non-Abelian Statistics. Physical Review Letters, 2012, 108, 047202.	2.9	9
62	Interacting Topological Insulators with Synthetic Dimensions. Physical Review X, 2018, 8, .	2.8	9
63	Magic continuum in a twisted bilayer square lattice with staggered flux. Physical Review B, 2021, 104, .	1.1	9
64	Lattice models for non-Fermi liquids with tunable transport scalings. Physical Review B, 2019, 100, .	1.1	8
65	Orbital order and possible non-Fermi liquid in moiré systems. Physical Review B, 2020, 101, .	1.1	8
66	Interaction-Driven Metal-Insulator Transition with Charge Fractionalization. Physical Review X, 2022, 12, .	2.8	8
67	Physics of symmetry protected topological phases involving higher symmetries and its applications. Physical Review B, 2021, 103, .	1.1	7
68	Pascal's Triangle Fractal Symmetries. Physical Review Letters, 2022, 128, 115301.	2.9	7
69	Topological edge and interface states at bulk disorder-to-order quantum critical points. Physical Review B, 2020, 101, .	1.1	6
70	Interacting valley Chern insulator and its topological imprint on moiré superconductors. Physical Review B, 2019, 100, .	1.1	5
71	Interacting topological phases in thin films of topological mirror Kondo insulators. Physical Review B, 2016, 94, .	1.1	4
72	Generic "unnecessary" quantum critical points with minimal degrees of freedom. Physical Review B, 2020, 101, .	1.1	3

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73	Boundary criticality of topological quantum phase transitions in two-dimensional systems. Physical Review B, 2020, 101, .	1.1	2
74	Non-Landau quantum phase transitions and nearly-marginal non-Fermi liquid. Journal of Statistical Mechanics: Theory and Experiment, 2020, 2020, 073102.	0.9	1