

William Witczak-Krempa

List of Publications by Year in descending order

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Version: 2024-02-01

47
papers

2,618
citations

304743

22
h-index

214800

47
g-index

49
all docs

49
docs citations

49
times ranked

2529
citing authors

#	ARTICLE	IF	CITATIONS
1	Cornering the universal shape of fluctuations. Nature Communications, 2022, 13, 287.	12.8	14
2	Entanglement of Skeletal Regions. Physical Review Letters, 2022, 128, .	7.8	6
3	Excitations and ergodicity of critical quantum spin chains from non-equilibrium classical dynamics. SciPost Physics Core, 2022, 5, .	2.8	1
4	Geometric entanglement in integer quantum Hall states. Physical Review B, 2021, 103, .	3.2	9
5	Modeling multiorbital effects in Sr^{2+} under strain and a Zeeman field. Physical Review B, 2021, 103, .	3.2	1
6	Monopole hierarchy in transitions out of a Dirac spin liquid. Annals of Physics, 2021, 435, 168496.	2.8	8
7	Fractionalized conductivity and emergent self-duality near topological phase transitions. Nature Communications, 2021, 12, 5347.	12.8	14
8	Interplay of Coulomb Repulsion and Spin-Orbit Coupling in Superconducting 3D Quadratic Band Touching Luttinger Semimetals. , 2021, , 359-367.		0
9	Geometric entanglement in the integer quantum Hall state at $\nu=1$ with boundaries. Physical Review B, 2020, 102, .	3.2	3
10	Impurities in three-dimensional quadratic band-touching Luttinger semimetals: Friedel and RKKY oscillations. Physical Review B, 2020, 102, .	3.2	1
11	Superconductivity from Coulomb repulsion in three-dimensional quadratic band touching Luttinger semimetals. Physical Review Research, 2020, 2, .	3.6	11
12	Dielectric and electronic properties of three-dimensional Luttinger semimetals with a quadratic band touching. Physical Review B, 2019, 100, .	3.2	14
13	Generalizing the entanglement entropy of singular regions in conformal field theories. Journal of High Energy Physics, 2019, 2019, 1.	4.7	21
14	Transition from a Dirac spin liquid to an antiferromagnet: Monopoles in a QED $_3$ -Gross-Neveu theory. Physical Review B, 2019, 100, .	3.2	1
15	Entanglement susceptibilities and universal geometric entanglement entropy. Physical Review B, 2019, 99, .	3.2	8
16	Relating bulk to boundary entanglement. Physical Review B, 2019, 100, .	3.2	13
17	Entanglement signatures of emergent Dirac fermions: Kagome spin liquid and quantum criticality. Science Advances, 2018, 4, eaat5535.	10.3	30
18	Cornering Gapless Quantum States via Their Torus Entanglement. Physical Review Letters, 2017, 118, 077202.	7.8	14

#	ARTICLE	IF	CITATIONS
19	Holographic torus entanglement and its renormalization group flow. <i>Physical Review D</i> , 2017, 95, .	4.7	8
20	Entanglement entropy of large- N Wilson-Fisher conformal field theory. <i>Physical Review B</i> , 2017, 95, .	3.2	39
21	Gapless quantum spin chains: multiple dynamics and conformal wavefunctions. <i>Journal of Physics A: Mathematical and Theoretical</i> , 2017, 50, 464002.	2.1	30
22	Dynamical Response near Quantum Critical Points. <i>Physical Review Letters</i> , 2017, 118, 056601.	7.8	14
23	Two-cylinder entanglement entropy under a twist. <i>Journal of Statistical Mechanics: Theory and Experiment</i> , 2017, 2017, 043104.	2.3	20
24	Quantum spin chains with multiple dynamics. <i>Physical Review B</i> , 2017, 96, .	3.2	23
25	Quantum critical response: from conformal perturbation theory to holography. <i>Journal of High Energy Physics</i> , 2017, 2017, 1.	4.7	19
26	Addendum to: A holographic model for quantum critical responses. <i>Journal of High Energy Physics</i> , 2016, 2016, 1.	4.7	12
27	Universal entanglement of singular surfaces. <i>Fortschritte Der Physik</i> , 2016, 64, 345-348.	4.4	1
28	A holographic model for quantum critical responses. <i>Journal of High Energy Physics</i> , 2016, 2016, 1.	4.7	18
29	Universal corner entanglement of Dirac fermions and gapless bosons from the continuum to the lattice. <i>Physical Review B</i> , 2016, 94, .	3.2	25
30	Bounds on corner entanglement in quantum critical states. <i>Physical Review B</i> , 2016, 93, .	3.2	31
31	Optical Conductivity of Topological Surface States with Emergent Supersymmetry. <i>Physical Review Letters</i> , 2016, 116, 100402.	7.8	41
32	Universality of Corner Entanglement in Conformal Field Theories. <i>Physical Review Letters</i> , 2015, 115, 021602.	7.8	128
33	Universal corner entanglement from twist operators. <i>Journal of High Energy Physics</i> , 2015, 2015, 1.	4.7	63
34	Constraining Quantum Critical Dynamics: $(2+1)$ D Ising Model and Beyond. <i>Physical Review Letters</i> , 2015, 114, 177201.	7.8	15
35	Conformal field theories at nonzero temperature: Operator product expansions, Monte Carlo, and holography. <i>Physical Review B</i> , 2014, 90, .	3.2	63
36	The dynamics of quantum criticality revealed by quantum Monte Carlo and holography. <i>Nature Physics</i> , 2014, 10, 361-366.	16.7	83

#	ARTICLE	IF	CITATIONS
37	Quantum critical charge response from higher derivatives in holography. Physical Review B, 2014, 89, .	3.2	32
38	Correlated Quantum Phenomena in the Strong Spin-Orbit Regime. Annual Review of Condensed Matter Physics, 2014, 5, 57-82.	14.5	1,020
39	Interacting Weyl Semimetals: Characterization via the Topological Hamiltonian and its Breakdown. Physical Review Letters, 2014, 113, 136402.	7.8	57
40	Dispersing quasinormal modes in (2+1)-dimensional conformal field theories. Physical Review B, 2013, 87, .	3.2	28
41	Pyrochlore electrons under pressure, heat, and field: Shedding light on the iridates. Physical Review B, 2013, 87, .	3.2	81
42	Universal transport near a quantum critical Mott transition in two dimensions. Physical Review B, 2012, 86, .	3.2	37
43	Quasinormal modes of quantum criticality. Physical Review B, 2012, 86, .	3.2	47
44	Topological and magnetic phases of interacting electrons in the pyrochlore iridates. Physical Review B, 2012, 85, .	3.2	324
45	Correlation Effects on 3D Topological Phases: From Bulk to Boundary. Physical Review Letters, 2012, 109, 066401.	7.8	111
46	Nonequilibrium quantum criticality in bilayer itinerant ferromagnets. Physical Review B, 2010, 81, .	3.2	10
47	Gauge field fluctuations in three-dimensional topological Mott insulators. Physical Review B, 2010, 82, .	3.2	37