

Erez Berg

List of Publications by Year in descending order

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Version: 2024-02-01

98
papers

8,327
citations

76326

40
h-index

43889

91
g-index

100
all docs

100
docs citations

100
times ranked

4828
citing authors

#	ARTICLE	IF	CITATIONS
1	Low-frequency Raman response near the Ising-nematic quantum critical point: A memory-matrix approach. Physical Review B, 2022, 105, .	3.2	4
2	Gapping Fragile Topological Bands by Interactions. Physical Review Letters, 2022, 128, 056801.	7.8	4
3	Fermionic MonteCarlo Study of a Realistic Model of Twisted Bilayer Graphene. Physical Review X, 2022, 12, .	8.9	31
4	In-plane orbital magnetization as a probe for symmetry breaking in strained twisted bilayer graphene. Physical Review B, 2022, 105, .	3.2	4
5	Breakdown of the Wiedemann-Franz law at the Lifshitz point of strained Sr_2RuO_4 . Physical Review B, 2022, 105, .	3.2	4
6	Stability of Floquet Majorana Box Qubits. Physical Review Letters, 2022, 128, 127702.	7.8	6
7	Prethermalization and entanglement dynamics in interacting topological pumps. Physical Review B, 2022, 105, .	3.2	5
8	Chern mosaic and Berry-curvature magnetism in magic-angle graphene. Nature Physics, 2022, 18, 885-892.	16.7	37
9	Spin-polarized superconductivity: Order parameter topology, current dissipation, and multiple-period Josephson effect. Physical Review Research, 2021, 3, .	3.6	11
10	Scrambling and Lyapunov exponent in spatially extended systems. Physical Review B, 2021, 103, .	3.2	14
11	Entropic evidence for a Pomeranchuk effect in magic-angle graphene. Nature, 2021, 592, 214-219.	27.8	118
12	Isospin Pomeranchuk effect in twisted bilayer graphene. Nature, 2021, 592, 220-224.	27.8	125
13	Strong-coupling expansion of multi-band interacting models: Mapping onto the transverse-field J_1 - J_2 spin chain. Annals of Physics, 2021, 435, 168522.	2.8	2
14	Specific Heat of a Quantum Critical Metal. Physical Review Letters, 2021, 127, 017601.	7.8	6
15	Theory of multi-orbital topological superconductivity in transition metal dichalcogenides. Annals of Physics, 2021, 435, 168561.	2.8	6
16	Bulk anyons as edge symmetries: Boundary phase diagrams of topologically ordered states. Physical Review B, 2021, 104, .	3.2	16
17	Strain-induced time reversal breaking and half quantum vortices near a putative superconducting tetracritical point in Sr_2RuO_4 . Physical Review B, 2021, 104, .	3.2	13
18	Electronic Floquet gyro-liquid crystal. Nature Communications, 2021, 12, 5299.	12.8	5

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19	Half- and quarter-metals in rhombohedral trilayer graphene. <i>Nature</i> , 2021, 598, 429-433.	27.8	119
20	Unconventional Superconductivity in Systems with Annular Fermi Surfaces: Application to Rhombohedral Trilayer Graphene. <i>Physical Review Letters</i> , 2021, 127, 247001.	7.8	48
21	Theory of Correlated Insulators and Superconductivity in Twisted Bilayer Graphene. <i>Physical Review Letters</i> , 2021, 127, 247703.	7.8	24
22	Converting electrons into emergent fermions at a superconductor-Kitaev spin liquid interface. <i>Physical Review B</i> , 2021, 104, .	3.2	5
23	Superconductivity, pseudogap, and phase separation in topological flat bands. <i>Physical Review B</i> , 2020, 102, .	3.2	44
24	Normal State Properties of Quantum Critical Metals at Finite Temperature. <i>Physical Review X</i> , 2020, 10, .	8.9	24
25	Modeling Unconventional Superconductivity at the Crossover between Strong and Weak Electronic Interactions. <i>Physical Review Letters</i> , 2020, 125, 247001.	7.8	7
26	Quantized large-bias current in the anomalous Floquet-Anderson insulator. <i>Physical Review B</i> , 2020, 101, .	3.2	16
27	The unreasonable effectiveness of Eliashberg theory for pairing of non-Fermi liquids. <i>Annals of Physics</i> , 2020, 417, 168125.	2.8	18
28	Theory of the strange metal $\text{Sr}_3\text{Ru}_2\text{O}_7$. <i>Proceedings of the National Academy of Sciences of the United States of America</i> , 2020, 117, 2852-2857.	7.1	25
29	Intrinsic superconducting instabilities of a solvable model for an incoherent metal. <i>Physical Review Research</i> , 2020, 2, .	3.6	30
30	Hierarchy of energy scales in an $O(3)$ symmetric antiferromagnetic quantum critical metal: A Monte Carlo study. <i>Physical Review Research</i> , 2020, 2, .	3.6	13
31	Scattering mechanisms and electrical transport near an Ising nematic quantum critical point. <i>Physical Review B</i> , 2019, 99, .	3.2	30
32	Topologically protected braiding in a single wire using Floquet Majorana modes. <i>Physical Review B</i> , 2019, 100, .	3.2	33
33	Topological superconductivity in planar Josephson junctions: Narrowing down to the nanowire limit. <i>Physical Review B</i> , 2019, 99, .	3.2	31
34	Anomalous Floquet insulators. <i>Physical Review B</i> , 2019, 99, .	3.2	47
35	Evidence of topological superconductivity in planar Josephson junctions. <i>Nature</i> , 2019, 569, 89-92.	27.8	261
36	Fractional Josephson Vortices and Braiding of Majorana Zero Modes in Planar Superconductor-Semiconductor Heterostructures. <i>Physical Review Letters</i> , 2019, 122, 107701.	7.8	30

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37	Monte Carlo Studies of Quantum Critical Metals. Annual Review of Condensed Matter Physics, 2019, 10, 63-84.	14.5	65
38	Dynamical susceptibility near a long-wavelength critical point with a nonconserved order parameter. Physical Review B, 2018, 97, .	3.2	19
39	Signatures of Fractionalization in Spin Liquids from Interlayer Thermal Transport. Physical Review X, 2018, 8, .	8.9	12
40	Translationally Invariant Non-Fermi-Liquid Metals with Critical Fermi Surfaces: Solvable Models. Physical Review X, 2018, 8, .	8.9	96
41	Dynamical susceptibility of a near-critical nonconserved order parameter and quadrupole Raman response in Fe-based superconductors. Physical Review B, 2018, 98, .	3.2	11
42	Fragility of Charge Order Near an Antiferromagnetic Quantum Critical Point. Physical Review Letters, 2018, 120, 247002.	7.8	20
43	Universal Chiral Quasisteady States in Periodically Driven Many-Body Systems. Physical Review X, 2017, 7, .	8.9	37
44	Superconductivity and non-Fermi liquid behavior near a nematic quantum critical point. Proceedings of the National Academy of Sciences of the United States of America, 2017, 114, 4905-4910.	7.1	150
45	Topological Transitions and Fractional Charges Induced by Strain and a Magnetic Field in Carbon Nanotubes. Physical Review Letters, 2017, 119, 147704.	7.8	11
46	Fate of the one-dimensional Ising quantum critical point coupled to a gapless boson. Physical Review B, 2017, 95, .	3.2	12
47	Superconductivity mediated by quantum critical antiferromagnetic fluctuations: The rise and fall of hot spots. Physical Review B, 2017, 95, .	3.2	35
48	Non-Fermi Liquid at $T = 0$ in a Quantum Critical Point. Physical Review X, 2017, 7, .	8.9	42
49	Quantum critical properties of a metallic spin-density-wave transition. Physical Review B, 2017, 95, .	3.2	47
50	Edge-entanglement correspondence for a gapped topological phase with symmetry. Physical Review B, 2017, 95, .	3.2	5
51	Non-quasiparticle transport and resistivity saturation: a view from the large-N limit. Npj Quantum Materials, 2017, 2, .	5.2	27
52	Transverse fields to tune an Ising-nematic quantum phase transition. Proceedings of the National Academy of Sciences of the United States of America, 2017, 114, 13430-13434.	7.1	24
53	Quantized Magnetization Density in Periodically Driven Systems. Physical Review Letters, 2017, 119, 186801.	7.8	48
54	Topological Superconductivity in a Planar Josephson Junction. Physical Review X, 2017, 7, .	8.9	149

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55	Fractional chiral superconductors. Physical Review B, 2017, 96, .	3.2	16
56	Interaction-driven topological superconductivity in one dimension. Physical Review B, 2016, 94, .	3.2	26
57	No-go theorem for a time-reversal invariant topological phase in noninteracting systems coupled to conventional superconductors. Physical Review B, 2016, 94, .	3.2	25
58	Signatures of topological Josephson junctions. Physical Review B, 2016, 94, .	3.2	62
59	Competing Orders in a Nearly Antiferromagnetic Metal. Physical Review Letters, 2016, 117, 097002.	7.8	63
60	Effects of order parameter self-consistency in a \mathbb{Z}_2 Anomalous Floquet-Anderson Insulator. Physical Review B, 2016, 93, .	8.9	204
61	Anomalous Floquet-Anderson Insulator as a Nonadiabatic Quantized Charge Pump. Physical Review X, 2016, 6, .	8.9	105
62	Ising Nematic Quantum Critical Point in a Metal: A Monte Carlo Study. Physical Review X, 2016, 6, .	3.2	20
63	Spin density wave order, topological order, and Fermi surface reconstruction. Physical Review B, 2016, 94, .	3.2	31
64	Current correlations in a Majorana beam splitter. Physical Review B, 2015, 92, .	3.2	12
65	Spontaneous layer polarization and conducting domain walls in the quantum Hall regime of bilayer graphene. Physical Review B, 2015, 91, .	8.9	58
66	Current at a Distance and Resonant Transparency in Weyl Semimetals. Physical Review X, 2015, 5, .	7.8	52
67	Topological States in a One-Dimensional Fermi Gas with Attractive Interaction. Physical Review Letters, 2015, 114, 100401.	7.8	32
68	Emergent Supersymmetry at the Ising-Berezinskii-Kosterlitz-Thouless Multicritical Point. Physical Review Letters, 2015, 114, 090404.	7.8	84
69	Signatures of Majorana Zero Modes in Spin-Resolved Current Correlations. Physical Review Letters, 2015, 114, 166406.	3.2	9
70	Sign reversal of the Hall response in a crystalline superconductor. Physical Review B, 2015, 91, .	3.2	17
71	Ferromagnetic and nematic non-Fermi liquids in spin-orbit-coupled two-dimensional Fermi gases. Physical Review B, 2014, 90, .	12.6	42
72	Coherent transmutation of electrons into fractionalized anyons. Science, 2014, 346, 722-725.		

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73	Universal Topological Quantum Computation from a Superconductor-Abelian Quantum Hall Heterostructure. <i>Physical Review X</i> , 2014, 4, .	8.9	240
74	Topological phases in gapped edges of fractionalized systems. <i>Physical Review B</i> , 2013, 88, .	3.2	47
75	Anomalous Edge States and the Bulk-Edge Correspondence for Periodically Driven Two-Dimensional Systems. <i>Physical Review X</i> , 2013, 3, .	8.9	690
76	Inducing Time-Reversal-Invariant Topological Superconductivity and Fermion Parity Pumping in Quantum Wires. <i>Physical Review Letters</i> , 2013, 111, 116402.	7.8	133
77	Singularity of the London Penetration Depth at Quantum Critical Points in Superconductors. <i>Physical Review Letters</i> , 2013, 111, 157004.	7.8	38
78	Supersymmetric multicritical point in a model of lattice fermions. <i>Physical Review B</i> , 2013, 87, .	3.2	25
79	Frustrated quantum Ising spins simulated by spinless bosons in a tilted lattice: From a quantum liquid to antiferromagnetic order. <i>Physical Review B</i> , 2012, 86, .	3.2	10
80	Clustered Wigner-crystal phases of cold polar molecules in arrays of one-dimensional tubes. <i>Physical Review B</i> , 2012, 86, .	3.2	32
81	Phases of the Infinite U Hubbard Model on Square Lattices. <i>Physical Review Letters</i> , 2012, 108, 126406.	7.8	55
82	Sign-Problem-Free Quantum Monte Carlo of the Onset of Antiferromagnetism in Metals. <i>Science</i> , 2012, 338, 1606-1609.	12.6	140
83	Fractionalizing Majorana Fermions: Non-Abelian Statistics on the Edges of Abelian Quantum Hall States. <i>Physical Review X</i> , 2012, 2, .	8.9	223
84	Symmetry protection of topological phases in one-dimensional quantum spin systems. <i>Physical Review B</i> , 2012, 85, .	3.2	550
85	Electronic liquid crystalline phases in a spin-orbit coupled two-dimensional electron gas. <i>Physical Review B</i> , 2012, 85, .	3.2	45
86	Topological phases of one-dimensional fermions: An entanglement point of view. <i>Physical Review B</i> , 2011, 83, .	3.2	409
87	Enhanced pairing in the checkerboard Hubbard ladder. <i>Physical Review B</i> , 2011, 83, .	3.2	23
88	Quantized Pumping and Topology of the Phase Diagram for a System of Interacting Bosons. <i>Physical Review Letters</i> , 2011, 106, 110405.	7.8	37
89	Observation of topologically protected bound states in photonic quantum walks. , 2011, , .		1
90	Superfluidity and Dimerization in a Multilayered System of Fermionic Polar Molecules. <i>Physical Review Letters</i> , 2010, 105, 220406.	7.8	70

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91	Pair-Density-Wave Correlations in the Kondo-Heisenberg Model. Physical Review Letters, 2010, 105, 146403.	7.8	72
92	Topological characterization of periodically driven quantum systems. Physical Review B, 2010, 82, .	3.2	932
93	Entanglement spectrum of a topological phase in one dimension. Physical Review B, 2010, 81, .	3.2	902
94	Striped superconductors: how spin, charge and superconducting orders intertwine in the cuprates. New Journal of Physics, 2009, 11, 115004.	2.9	244
95	Charge-4e superconductivity from pair-density-wave order in certain high-temperature superconductors. Nature Physics, 2009, 5, 830-833.	16.7	186
96	Evolution of the Fermi Surface of d -Wave Superconductors in the Presence of Thermal Phase Fluctuations. Physical Review Letters, 2007, 99, 247001.	7.8	37
97	Hidden Order in 1D Bose Insulators. Physical Review Letters, 2006, 97, 260401.	7.8	194
98	Singlet Excitations in Pyrochlore: A Study of Quantum Frustration. Physical Review Letters, 2003, 90, 147204.	7.8	105