

Erez Berg

List of Publications by Year in descending order

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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	Topological characterization of periodically driven quantum systems. <i>Physical Review B</i> , 2010, 82, .	3.2	932
2	Entanglement spectrum of a topological phase in one dimension. <i>Physical Review B</i> , 2010, 81, .	3.2	902
3	Anomalous Edge States and the Bulk-Edge Correspondence for Periodically Driven Two-Dimensional Systems. <i>Physical Review X</i> , 2013, 3, .	8.9	690
4	Symmetry protection of topological phases in one-dimensional quantum spin systems. <i>Physical Review B</i> , 2012, 85, .	3.2	550
5	Topological phases of one-dimensional fermions: An entanglement point of view. <i>Physical Review B</i> , 2011, 83, .	3.2	409
6	Evidence of topological superconductivity in planar Josephson junctions. <i>Nature</i> , 2019, 569, 89-92.	27.8	261
7	Striped superconductors: how spin, charge and superconducting orders intertwine in the cuprates. <i>New Journal of Physics</i> , 2009, 11, 115004.	2.9	244
8	Universal Topological Quantum Computation from a Superconductor-Abelian Quantum Hall Heterostructure. <i>Physical Review X</i> , 2014, 4, .	8.9	240
9	Fractionalizing Majorana Fermions: Non-Abelian Statistics on the Edges of Abelian Quantum Hall States. <i>Physical Review X</i> , 2012, 2, .	8.9	223
10	Anomalous Floquet-Anderson Insulator as a Nonadiabatic Quantized Charge Pump. <i>Physical Review X</i> , 2016, 6, .	8.9	204
11	Hidden Order in 1D Bose Insulators. <i>Physical Review Letters</i> , 2006, 97, 260401.	7.8	194
12	Charge-4e superconductivity from pair-density-wave order in certain high-temperature superconductors. <i>Nature Physics</i> , 2009, 5, 830-833.	16.7	186
13	Superconductivity and non-Fermi liquid behavior near a nematic quantum critical point. <i>Proceedings of the National Academy of Sciences of the United States of America</i> , 2017, 114, 4905-4910.	7.1	150
14	Topological Superconductivity in a Planar Josephson Junction. <i>Physical Review X</i> , 2017, 7, .	8.9	149
15	Sign-Problem-Free Quantum Monte Carlo of the Onset of Antiferromagnetism in Metals. <i>Science</i> , 2012, 338, 1606-1609.	12.6	140
16	Inducing Time-Reversal-Invariant Topological Superconductivity and Fermion Parity Pumping in Quantum Wires. <i>Physical Review Letters</i> , 2013, 111, 116402.	7.8	133
17	Isospin Pomeranchuk effect in twisted bilayer graphene. <i>Nature</i> , 2021, 592, 220-224.	27.8	125
18	Half- and quarter-metals in rhombohedral trilayer graphene. <i>Nature</i> , 2021, 598, 429-433.	27.8	119

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19	Entropic evidence for a Pomeranchuk effect in magic-angle graphene. <i>Nature</i> , 2021, 592, 214-219.	27.8	118
20	Singlet Excitations in Pyrochlore: A Study of Quantum Frustration. <i>Physical Review Letters</i> , 2003, 90, 147204.	7.8	105
21	Ising Nematic Quantum Critical Point in a Metal: A Monte Carlo Study. <i>Physical Review X</i> , 2016, 6, .	8.9	105
22	Translationally Invariant Non-Fermi-Liquid Metals with Critical Fermi Surfaces: Solvable Models. <i>Physical Review X</i> , 2018, 8, .	8.9	96
23	Signatures of Majorana Zero Modes in Spin-Resolved Current Correlations. <i>Physical Review Letters</i> , 2015, 114, 166406.	7.8	84
24	Pair-Density-Wave Correlations in the Kondo-Heisenberg Model. <i>Physical Review Letters</i> , 2010, 105, 146403.	7.8	72
25	Superfluidity and Dimerization in a Multilayered System of Fermionic Polar Molecules. <i>Physical Review Letters</i> , 2010, 105, 220406.	7.8	70
26	Monte Carlo Studies of Quantum Critical Metals. <i>Annual Review of Condensed Matter Physics</i> , 2019, 10, 63-84.	14.5	65
27	Competing Orders in a Nearly Antiferromagnetic Metal. <i>Physical Review Letters</i> , 2016, 117, 097002.	7.8	63
28	Signatures of topological Josephson junctions. <i>Physical Review B</i> , 2016, 94, .	3.2	62
29	Current at a Distance and Resonant Transparency in Weyl Semimetals. <i>Physical Review X</i> , 2015, 5, .	8.9	58
30	Phases of the Infinite U Hubbard Model on Square Lattices. <i>Physical Review Letters</i> , 2012, 108, 126406.	7.8	55
31	Topological States in a One-Dimensional Fermi Gas with Attractive Interaction. <i>Physical Review Letters</i> , 2015, 114, 100401.	7.8	52
32	Quantized Magnetization Density in Periodically Driven Systems. <i>Physical Review Letters</i> , 2017, 119, 186801.	7.8	48
33	Unconventional Superconductivity in Systems with Annular Fermi Surfaces: Application to Rhombohedral Trilayer Graphene. <i>Physical Review Letters</i> , 2021, 127, 247001.	7.8	48
34	Topological phases in gapped edges of fractionalized systems. <i>Physical Review B</i> , 2013, 88, .	3.2	47
35	Quantum critical properties of a metallic spin-density-wave transition. <i>Physical Review B</i> , 2017, 95, .	3.2	47
36	Anomalous Floquet insulators. <i>Physical Review B</i> , 2019, 99, .	3.2	47

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37	Electronic liquid crystalline phases in a spin-orbit coupled two-dimensional electron gas. <i>Physical Review B</i> , 2012, 85, .	3.2	45
38	Superconductivity, pseudogap, and phase separation in topological flat bands. <i>Physical Review B</i> , 2020, 102, .	3.2	44
39	Coherent transmutation of electrons into fractionalized anyons. <i>Science</i> , 2014, 346, 722-725.	12.6	42
40	Non-Fermi Liquid at $\langle \mathbf{d} \rangle$ Tj ETQq0 0 0 rgBT /Overlock 10 Tf 50 637 Td (d display="inline"> <mml:mrow><mml:mi mathvariant="normal">D</mml:mi></mml:mrow></mml:math> Ferromagnetic Quantum Critical Point. <i>Physical Review X</i> , 2017, 7, .	8.9	42
41	Singularity of the London Penetration Depth at Quantum Critical Points in Superconductors. <i>Physical Review Letters</i> , 2013, 111, 157004.	7.8	38
42	Evolution of the Fermi Surface of $\langle \mathbf{d} \rangle$ -Wave Superconductors in the Presence of Thermal Phase Fluctuations. <i>Physical Review Letters</i> , 2007, 99, 247001.	7.8	37
43	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
44	Universal Chiral Quasisteady States in Periodically Driven Many-Body Systems. <i>Physical Review X</i> , 2017, 7, .	8.9	37
45	Chern mosaic and Berry-curvature magnetism in magic-angle graphene. <i>Nature Physics</i> , 2022, 18, 885-892.	16.7	37
46	Superconductivity mediated by quantum critical antiferromagnetic fluctuations: The rise and fall of hot spots. <i>Physical Review B</i> , 2017, 95, .	3.2	35
47	Topologically protected braiding in a single wire using Floquet Majorana modes. <i>Physical Review B</i> , 2019, 100, .	3.2	33
48	Clustered Wigner-crystal phases of cold polar molecules in arrays of one-dimensional tubes. <i>Physical Review B</i> , 2012, 86, .	3.2	32
49	Emergent Supersymmetry at the Ising-Berezinskii-Kosterlitz-Thouless Multicritical Point. <i>Physical Review Letters</i> , 2015, 114, 090404.	7.8	32
50	Current correlations in a Majorana beam splitter. <i>Physical Review B</i> , 2015, 92, .	3.2	31
51	Topological superconductivity in planar Josephson junctions: Narrowing down to the nanowire limit. <i>Physical Review B</i> , 2019, 99, .	3.2	31
52	Fermionic Monte-Carlo Study of a Realistic Model of Twisted Bilayer Graphene. <i>Physical Review X</i> , 2022, 12, .	8.9	31
53	Scattering mechanisms and electrical transport near an Ising nematic quantum critical point. <i>Physical Review B</i> , 2019, 99, .	3.2	30
54	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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55	Intrinsic superconducting instabilities of a solvable model for an incoherent metal. <i>Physical Review Research</i> , 2020, 2, .	3.6	30
56	Non-quasiparticle transport and resistivity saturation: a view from the large-N limit. <i>Npj Quantum Materials</i> , 2017, 2, .	5.2	27
57	Interaction-driven topological superconductivity in one dimension. <i>Physical Review B</i> , 2016, 94, .	3.2	26
58	Supersymmetric multicritical point in a model of lattice fermions. <i>Physical Review B</i> , 2013, 87, .	3.2	25
59	No-go theorem for a time-reversal invariant topological phase in noninteracting systems coupled to conventional superconductors. <i>Physical Review B</i> , 2016, 94, .	3.2	25
60	Theory of the strange metal SrRuO_7 . <i>Proceedings of the National Academy of Sciences of the United States of America</i> , 2020, 117, 2852-2857.	7.1	25
61	Transverse fields to tune an Ising-nematic quantum phase transition. <i>Proceedings of the National Academy of Sciences of the United States of America</i> , 2017, 114, 13430-13434.	7.1	24
62	Normal State Properties of Quantum Critical Metals at Finite Temperature. <i>Physical Review X</i> , 2020, 10, .	8.9	24
63	Theory of Correlated Insulators and Superconductivity in Twisted Bilayer Graphene. <i>Physical Review Letters</i> , 2021, 127, 247703.	7.8	24
64	Enhanced pairing in the checkerboard Hubbard ladder. <i>Physical Review B</i> , 2011, 83, .	3.2	23
65	Spin density wave order, topological order, and Fermi surface reconstruction. <i>Physical Review B</i> , 2016, 94, .	3.2	20
66	Fragility of Charge Order Near an Antiferromagnetic Quantum Critical Point. <i>Physical Review Letters</i> , 2018, 120, 247002.	7.8	20
67	Dynamical susceptibility near a long-wavelength critical point with a nonconserved order parameter. <i>Physical Review B</i> , 2018, 97, .	3.2	19
68	The unreasonable effectiveness of Eliashberg theory for pairing of non-Fermi liquids. <i>Annals of Physics</i> , 2020, 417, 168125.	2.8	18
69	Ferromagnetic and nematic non-Fermi liquids in spin-orbit-coupled two-dimensional Fermi gases. <i>Physical Review B</i> , 2014, 90, .	3.2	17
70	Fractional chiral superconductors. <i>Physical Review B</i> , 2017, 96, .	3.2	16
71	Quantized large-bias current in the anomalous Floquet-Anderson insulator. <i>Physical Review B</i> , 2020, 101, .	3.2	16
72	Bulk anyons as edge symmetries: Boundary phase diagrams of topologically ordered states. <i>Physical Review B</i> , 2021, 104, .	3.2	16

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73	Scrambling and Lyapunov exponent in spatially extended systems. Physical Review B, 2021, 103, .	3.2	14
74	Strain-induced time reversal breaking and half quantum vortices near a putative superconducting tetracritical point in Sr_2IrO_7 . Physical Review B, 2021, 104, .	3.2	13
75	Hierarchy of energy scales in an O(3) symmetric antiferromagnetic quantum critical metal: A Monte Carlo study. Physical Review Research, 2020, 2, .	3.6	13
76	Spontaneous layer polarization and conducting domain walls in the quantum Hall regime of bilayer graphene. Physical Review B, 2015, 91, .	3.2	12
77	Fate of the one-dimensional Ising quantum critical point coupled to a gapless boson. Physical Review B, 2017, 95, .	3.2	12
78	Signatures of Fractionalization in Spin Liquids from Interlayer Thermal Transport. Physical Review X, 2018, 8, .	8.9	12
79	Topological Transitions and Fractional Charges Induced by Strain and a Magnetic Field in Carbon Nanotubes. Physical Review Letters, 2017, 119, 147704.	7.8	11
80	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
81	Spin-polarized superconductivity: Order parameter topology, current dissipation, and multiple-period Josephson effect. Physical Review Research, 2021, 3, .	3.6	11
82	Frustrated quantum Ising spins simulated by spinless bosons in a tilted lattice: From a quantum liquid to antiferromagnetic order. Physical Review B, 2012, 86, .	3.2	10
83	Sign reversal of the Hall response in a crystalline superconductor. Physical Review B, 2015, 91, .	3.2	9
84	Modeling Unconventional Superconductivity at the Crossover between Strong and Weak Electronic Interactions. Physical Review Letters, 2020, 125, 247001.	7.8	7
85	Specific Heat of a Quantum Critical Metal. Physical Review Letters, 2021, 127, 017601.	7.8	6
86	Theory of multi-orbital topological superconductivity in transition metal dichalcogenides. Annals of Physics, 2021, 435, 168561.	2.8	6
87	Stability of Floquet Majorana Box Qubits. Physical Review Letters, 2022, 128, 127702.	7.8	6
88	Edge-entanglement correspondence for a gapped topological phase with symmetry. Physical Review B, 2017, 95, .	3.2	5
89	Electronic Floquet gyro-liquid crystal. Nature Communications, 2021, 12, 5299.	12.8	5
90	Converting electrons into emergent fermions at a superconductor-Kitaev spin liquid interface. Physical Review B, 2021, 104, .	3.2	5

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91	Prethermalization and entanglement dynamics in interacting topological pumps. Physical Review B, 2022, 105, .	3.2	5
92	Low-frequency Raman response near the Ising-nematic quantum critical point: A memory-matrix approach. Physical Review B, 2022, 105, .	3.2	4
93	Gapping Fragile Topological Bands by Interactions. Physical Review Letters, 2022, 128, 056801.	7.8	4
94	In-plane orbital magnetization as a probe for symmetry breaking in strained twisted bilayer graphene. Physical Review B, 2022, 105, .	3.2	4
95	Breakdown of the Wiedemann-Franz law at the Lifshitz point of strained Sr_2RuO_4 . Physical Review B, 2022, 105, .	3.2	4
96	Effects of order parameter self-consistency in a Sr_2RuO_4 . Physical Review B, 2016, 93, .	3.2	4
97	Strong coupling expansion of multi-band interacting models: Mapping onto the transverse field Ising model. Annals of Physics, 2021, 435, 168522.	2.8	2
98	Observation of topologically protected bound states in photonic quantum walks. , 2011, , .		1