

Gil Refael

List of Publications by Year in descending order

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104
papers

10,883
citations

70961

41
h-index

32761

100
g-index

105
all docs

105
docs citations

105
times ranked

6547
citing authors

#	ARTICLE	IF	CITATIONS
1	Helical Liquids and Majorana Bound States in Quantum Wires. <i>Physical Review Letters</i> , 2010, 105, 177002.	2.9	2,544
2	Floquet topological insulator in semiconductor quantum wells. <i>Nature Physics</i> , 2011, 7, 490-495.	6.5	1,385
3	Non-Abelian statistics and topological quantum information processing in 1D wire networks. <i>Nature Physics</i> , 2011, 7, 412-417.	6.5	1,285
4	Majorana Fermions in Equilibrium and in Driven Cold-Atom Quantum Wires. <i>Physical Review Letters</i> , 2011, 106, 220402.	2.9	606
5	Electronic correlations in twisted bilayer graphene near the magic angle. <i>Nature Physics</i> , 2019, 15, 1174-1180.	6.5	450
6	Many-body localization in a quasiperiodic system. <i>Physical Review B</i> , 2013, 87, .	1.1	313
7	Photocurrents in Weyl semimetals. <i>Physical Review B</i> , 2017, 95, .	1.1	229
8	Fractionalizing Majorana Fermions: Non-Abelian Statistics on the Edges of Abelian Quantum Hall States. <i>Physical Review X</i> , 2012, 2, .	2.8	223
9	Anomalous Floquet-Anderson Insulator as a Nonadiabatic Quantized Charge Pump. <i>Physical Review X</i> , 2016, 6, .	2.8	204
10	Topological Polaritons. <i>Physical Review X</i> , 2015, 5, .	2.8	201
11	Hilbert-Class Transition: New Universality of Temperature-Tuned Many-Body Dynamical Quantum Criticality. <i>Physical Review X</i> , 2014, 4, .	2.8	197
12	Disorder-Induced Floquet Topological Insulators. <i>Physical Review Letters</i> , 2015, 114, 056801.	2.9	182
13	Adiabatic manipulations of Majorana fermions in a three-dimensional network of quantum wires. <i>Physical Review B</i> , 2012, 85, .	1.1	149
14	Unconventional Josephson Signatures of Majorana Bound States. <i>Physical Review Letters</i> , 2011, 107, 236401.	2.9	143
15	From Bloch oscillations to many-body localization in clean interacting systems. <i>Proceedings of the National Academy of Sciences of the United States of America</i> , 2019, 116, 9269-9274.	3.3	143
16	Topological Floquet spectrum in three dimensions via a two-photon resonance. <i>Physical Review B</i> , 2013, 87, .	1.1	131
17	Controlled Population of Floquet-Bloch States via Coupling to Bose and Fermi Baths. <i>Physical Review X</i> , 2015, 5, .	2.8	115
18	Topological Frequency Conversion in Strongly Driven Quantum Systems. <i>Physical Review X</i> , 2017, 7, .	2.8	103

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19	Floquet Second-Order Topological Insulators from Nonsymmorphic Space-Time Symmetries. Physical Review Letters, 2019, 123, 016806.	2.9	93
20	Phase Transition in a System of One-Dimensional Bosons with Strong Disorder. Physical Review Letters, 2004, 93, 150402.	2.9	89
21	Photocurrent response of topological insulator surface states. Physical Review B, 2013, 88, .	1.1	76
22	Quantum dynamics of thermalizing systems. Physical Review B, 2018, 97, .	1.1	72
23	Superfluid-insulator transition of disordered bosons in one dimension. Physical Review B, 2010, 81, .	1.1	70
24	Manipulating Majorana fermions using supercurrents. Physical Review B, 2012, 85, .	1.1	70
25	Fixed Points of Wegner-Wilson Flows and Many-Body Localization. Physical Review Letters, 2017, 119, 075701.	2.9	69
26	Linear magnetoresistance in metals: Guiding center diffusion in a smooth random potential. Physical Review B, 2015, 92, .	1.1	68
27	Measuring entanglement entropies in many-body systems. Physical Review A, 2006, 74, .	1.0	63
28	Remnant Geometric Hall Response in a Quantum Quench. Physical Review Letters, 2016, 117, 235302.	2.9	61
29	Universal Geometric Path to a Robust Majorana Magic Gate. Physical Review X, 2016, 6, .	2.8	59
30	Geometrical approach to hydrodynamics and low-energy excitations of spinor condensates. Physical Review B, 2009, 80, .	1.1	54
31	Superconductor-to-normal transitions in dissipative chains of mesoscopic grains and nanowires. Physical Review B, 2007, 75, .	1.1	50
32	Insulating Phases and Superfluid-Insulator Transition of Disordered Boson Chains. Physical Review Letters, 2008, 100, 170402.	2.9	50
33	Shortcuts to non-Abelian braiding. Physical Review B, 2015, 91, .	1.1	49
34	Boosting Majorana Zero Modes. Physical Review X, 2013, 3, .	2.8	48
35	Quantized Magnetization Density in Periodically Driven Systems. Physical Review Letters, 2017, 119, 186801.	2.9	48
36	Spin reduction transition in spin-32 random Heisenberg chains. Physical Review B, 2002, 66, .	1.1	46

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37	Bulk-Boundary Correspondence for Non-Hermitian Hamiltonians via Green Functions. Physical Review Letters, 2021, 126, 216407.	2.9	46
38	RESISTANCE IN SUPERCONDUCTORS. International Journal of Modern Physics B, 2010, 24, 4039-4080.	1.0	44
39	Magneto-Josephson effects in junctions with Majorana bound states. Physical Review B, 2013, 87, .	1.1	43
40	Learning phase transitions from dynamics. Physical Review B, 2018, 98, .	1.1	43
41	Optimal control of Majorana zero modes. Physical Review B, 2015, 91, .	1.1	41
42	Quantized transport and steady states of Floquet topological insulators. Physical Review B, 2018, 97, .	1.1	41
43	Optically induced flat bands in twisted bilayer graphene. Physical Review B, 2020, 102, .	1.1	38
44	Sharp Superconductor-Insulator Transition in Short Wires. Physical Review Letters, 2007, 98, 187001.	2.9	37
45	Absence of thermalization in finite isolated interacting Floquet systems. Physical Review B, 2018, 97, .	1.1	35
46	Do the surface Fermi arcs in Weyl semimetals survive disorder?. Physical Review B, 2018, 97, .	1.1	34
47	Time-quasiperiodic topological superconductors with Majorana multiplexing. Physical Review B, 2018, 98, .	1.1	33
48	Topologically protected braiding in a single wire using Floquet Majorana modes. Physical Review B, 2019, 100, .	1.1	33
49	Strong disorder renormalization group primer and the superfluid-insulator transition. Comptes Rendus Physique, 2013, 14, 725-739.	0.3	29
50	Dissipation and quantum phase transitions of a pair of Josephson junctions. Physical Review B, 2003, 68, .	1.1	28
51	Steady states of interacting Floquet insulators. Physical Review B, 2019, 99, .	1.1	27
52	Topological frequency conversion in a driven dissipative quantum cavity. Physical Review B, 2019, 99, .	1.1	24
53	Orbital Floquet engineering of exchange interactions in magnetic materials. Physical Review B, 2019, 100, .	1.1	24
54	Thermopower and Mott formula for a Majorana edge state. Physical Review B, 2013, 88, .	1.1	23

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55	Disorder-induced transitions in resonantly driven Floquet topological insulators. <i>Physical Review B</i> , 2017, 96, .	1.1	23
56	Light-induced evaporative cooling of holes in the Hubbard model. <i>Nature Communications</i> , 2019, 10, 5556.	5.8	23
57	Dynamical many-body localization in an integrable model. <i>Physical Review B</i> , 2016, 94, .	1.1	22
58	Topological energy conversion through the bulk or the boundary of driven systems. <i>Physical Review B</i> , 2018, 97, .	1.1	22
59	Fate of the Josephson effect in thin-film superconductors. <i>Nature Physics</i> , 2005, 1, 117-121.	6.5	20
60	Sagnac Interference in Carbon Nanotube Loops. <i>Physical Review Letters</i> , 2007, 98, 246803.	2.9	20
61	Localization transition in one dimension using Wegner flow equations. <i>Physical Review B</i> , 2016, 94, .	1.1	20
62	Magneto-Josephson effects and Majorana bound states in quantum wires. <i>New Journal of Physics</i> , 2013, 15, 115001.	1.2	19
63	Energy Partitioning of Tunneling Currents into Luttinger Liquids. <i>Physical Review Letters</i> , 2011, 107, 176403.	2.9	18
64	Anderson localization on the Bethe lattice using cages and the Wegner flow. <i>Physical Review B</i> , 2019, 100, .	1.1	18
65	Setting Boundaries with Memory: Generation of Topological Boundary States in Floquet-Induced Synthetic Crystals. <i>Physical Review Letters</i> , 2018, 120, 106402.	2.9	17
66	Dissipation-Driven Quantum Phase Transition in Superconductor-Graphene Systems. <i>Physical Review Letters</i> , 2008, 101, 106402.	2.9	16
67	Finding the Elusive Sliding Phase in the Superfluid-Normal Phase Transition Smeared by Axis Disorder. <i>Physical Review Letters</i> , 2010, 105, 085302.	2.9	16
68	Shift-current response as a probe of quantum geometry and electron-electron interactions in twisted bilayer graphene. <i>Physical Review Research</i> , 2022, 4, .	1.3	16
69	Transverse Meissner physics of planar superconductors with columnar pins. <i>Physical Review B</i> , 2006, 74, .	1.1	14
70	Interacting adiabatic quantum motor. <i>Physical Review B</i> , 2018, 97, .	1.1	14
71	Robust Majorana magic gates via measurements. <i>Physical Review B</i> , 2019, 99, .	1.1	14
72	Effect of inhomogeneous coupling on BCS superconductors. <i>Physical Review B</i> , 2008, 77, .	1.1	12

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73	Superconductor to normal-metal transition in finite-length nanowires: Phenomenological model. <i>Physical Review B</i> , 2009, 79, .	1.1	12
74	Topological polaritons in a quantum spin Hall cavity. <i>Physical Review B</i> , 2016, 93, .	1.1	12
75	Quantum frequency locking and downconversion in a driven qubit-cavity system. <i>Physical Review Research</i> , 2020, 2, .	1.3	11
76	Electrical Manipulation of Majorana Fermions in an Interdigitated Superconductor-Ferromagnet Device. <i>Physical Review Letters</i> , 2012, 109, 126403.	2.9	10
77	Disordered topological metals. <i>Physical Review B</i> , 2013, 87, .	1.1	9
78	Current amplification and relaxation in Dirac systems. <i>Physical Review B</i> , 2014, 90, .	1.1	9
79	Extracting many-body localization lengths with an imaginary vector potential. <i>Physical Review B</i> , 2021, 103, .	1.1	9
80	Floquet Majorana bound states in voltage-biased planar Josephson junctions. <i>Physical Review Research</i> , 2021, 3, .	1.3	9
81	Simulation results for an interacting pair of resistively shunted Josephson junctions. <i>Journal of Statistical Mechanics: Theory and Experiment</i> , 2005, 2005, P12003-P12003.	0.9	8
82	Universal nonadiabatic energy pumping in a quasiperiodically driven extended system. <i>Physical Review B</i> , 2021, 104, .	1.1	8
83	Clausius-Clapeyron relations for first-order phase transitions in bilayer quantum Hall systems. <i>Physical Review B</i> , 2010, 81, .	1.1	7
84	Transport through a disordered topological-metal strip. <i>Physical Review B</i> , 2013, 87, .	1.1	7
85	Anomalous exciton transport in response to a uniform in-plane electric field. <i>Physical Review B</i> , 2021, 103, .	1.1	7
86	Sharp superconductor-insulator transition in short wires. <i>Physica C: Superconductivity and Its Applications</i> , 2008, 468, 341-349.	0.6	6
87	Holographic treatment of boundary disorder in a topological insulator. <i>Physical Review B</i> , 2015, 92, .	1.1	6
88	Investigating the superconductor-insulator transition in thin films using drag resistance: Theoretical analysis of a proposed experiment. <i>Physical Review B</i> , 2009, 80, .	1.1	5
89	Decoupling of static and dynamic criticality in a driven Mott insulator. <i>Communications Physics</i> , 2022, 5, .	2.0	5
90	Sagnac interference in carbon nanotubes. <i>Physical Review B</i> , 2008, 78, .	1.1	4

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91	Photon pumping in a weakly-driven quantum cavity spin system. <i>Annals of Physics</i> , 2021, 435, 168553.	1.0	4
92	From dynamical localization to bunching in interacting Floquet systems. <i>SciPost Physics</i> , 2018, 5, .	1.5	4
93	Theoretical analysis of drag resistance in amorphous thin films exhibiting superconductor-insulator transitions. <i>Physical Review B</i> , 2010, 82, .	1.1	3
94	Susceptibility at the superfluid-insulator transition for one-dimensional disordered bosons. <i>Physical Review B</i> , 2013, 88, .	1.1	3
95	Thermodynamic measure of the magnetoelectric coupling in a three-dimensional topological insulator. <i>Physical Review B</i> , 2013, 87, .	1.1	3
96	Experimental realization of a topological Anderson insulator. , 2015, , .		3
97	Ground-state degeneracy of correlated insulators with edges. <i>Physical Review B</i> , 2005, 72, .	1.1	2
98	RESISTANCE IN SUPERCONDUCTORS. , 2010, , 185-226.		2
99	Particle-hole symmetric localization in optical lattices using time modulated random on-site potentials. <i>Physical Review B</i> , 2010, 82, .	1.1	1
100	Semiclassical approach to bound states of a pointlike impurity in a two-dimensional Dirac system. <i>Physical Review B</i> , 2014, 89, .	1.1	1
101	Nonperturbative expression for the transmission through a leaky chiral edge mode. <i>Physical Review B</i> , 2014, 89, .	1.1	1
102	Universal point contact resistance between thin-film superconductors. <i>Physical Review B</i> , 2006, 73, .	1.1	0
103	Gapless Excitations in Strongly Fluctuating Superconducting Wires. <i>Physical Review Letters</i> , 2011, 107, 227004.	2.9	0
104	Quantum information sharing between topologically distinct platforms. <i>Physical Review B</i> , 2016, 94, .	1.1	0