

Barry Bradlyn

List of Publications by Citations

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The third column is the impact factor (IF) of the journal, and the fourth column is the number of citations of the article.

42
papers

2,582
citations

23
h-index

50
g-index

50
ext. papers

3,704
ext. citations

9.9
avg, IF

5.62
L-index

#	Paper	IF	Citations
42	Beyond Dirac and Weyl fermions: Unconventional quasiparticles in conventional crystals. <i>Science</i> , 2016 , 353, aaf5037	33.3	601
41	Topological quantum chemistry. <i>Nature</i> , 2017 , 547, 298-305	50.4	537
40	Kubo formulas for viscosity: Hall viscosity, Ward identities, and the relation with conductivity. <i>Physical Review B</i> , 2012 , 86,	3.3	158
39	Double crystallographic groups and their representations on the Bilbao Crystallographic Server. <i>Journal of Applied Crystallography</i> , 2017 , 50, 1457-1477	3.8	101
38	Chiral topological semimetal with multifold band crossings and long Fermi arcs. <i>Nature Physics</i> , 2019 , 15, 759-765	16.2	98
37	Building blocks of topological quantum chemistry: Elementary band representations. <i>Physical Review B</i> , 2018 , 97,	3.3	90
36	Wallpaper fermions and the nonsymmorphic Dirac insulator. <i>Science</i> , 2018 , 361, 246-251	33.3	73
35	Geometry and Response of Lindbladans. <i>Physical Review X</i> , 2016 , 6,	9.1	72
34	Low-energy effective theory in the bulk for transport in a topological phase. <i>Physical Review B</i> , 2015 , 91,	3.3	72
33	Strong and fragile topological Dirac semimetals with higher-order Fermi arcs. <i>Nature Communications</i> , 2020 , 11, 627	17.4	68
32	Topology of Disconnected Elementary Band Representations. <i>Physical Review Letters</i> , 2018 , 120, 266401	17.4	67
31	Chiral optical response of multifold fermions. <i>Physical Review B</i> , 2018 , 98,	3.3	66
30	Graph theory data for topological quantum chemistry. <i>Physical Review E</i> , 2017 , 96, 023310	2.4	65
29	Disconnected elementary band representations, fragile topology, and Wilson loops as topological indices: An example on the triangular lattice. <i>Physical Review B</i> , 2019 , 99,	3.3	61
28	Chiral anomaly factory: Creating Weyl fermions with a magnetic field. <i>Physical Review B</i> , 2017 , 95,	3.3	56
27	Topological central charge from Berry curvature: Gravitational anomalies in trial wave functions for topological phases. <i>Physical Review B</i> , 2015 , 91,	3.3	45
26	Observation and control of maximal Chern numbers in a chiral topological semimetal. <i>Science</i> , 2020 , 369, 179-183	33.3	39

25	Band connectivity for topological quantum chemistry: Band structures as a graph theory problem. <i>Physical Review B</i> , 2018 , 97,	3.3	37
24	Engineering fragile topology in photonic crystals: Topological quantum chemistry of light. <i>Physical Review Research</i> , 2019 , 1,	3.9	30
23	Effective action approach for quantum phase transitions in bosonic lattices. <i>Physical Review A</i> , 2009 , 79,	2.6	29
22	Tutorial: Computing Topological Invariants in 2D Photonic Crystals. <i>Advanced Quantum Technologies</i> , 2020 , 3, 1900117	4.3	26
21	Investigating Anisotropic Quantum Hall States with Bimetric Geometry. <i>Physical Review Letters</i> , 2017 , 119, 146602	7.4	25
20	Multifold nodal points in magnetic materials. <i>APL Materials</i> , 2019 , 7, 101125	5.7	24
19	Robustness of topological corner modes in photonic crystals. <i>Physical Review Research</i> , 2020 , 2,	3.9	20
18	Quasinormal Modes and the Hawking-Unruh Effect in Quantum Hall Systems: Lessons from Black Hole Phenomena. <i>Physical Review Letters</i> , 2019 , 123, 156802	7.4	15
17	Magnetic topological quantum chemistry. <i>Nature Communications</i> , 2021 , 12, 5965	17.4	15
16	Hall Viscosity in Quantum Systems with Discrete Symmetry: Point Group and Lattice Anisotropy. <i>Physical Review X</i> , 2020 , 10,	9.1	14
15	Axionic band topology in inversion-symmetric Weyl-charge-density waves. <i>Physical Review Research</i> , 2020 , 2,	3.9	11
14	Band Representations and Topological Quantum Chemistry. <i>Annual Review of Condensed Matter Physics</i> , 2021 , 12, 225-246	19.7	11
13	Topological materials discovery from crystal symmetry. <i>Nature Reviews Materials</i> ,	73.3	10
12	Viscoelastic response of quantum Hall fluids in a tilted field. <i>Physical Review B</i> , 2019 , 99,	3.3	8
11	Pairing Obstructions in Topological Superconductors. <i>Physical Review Letters</i> , 2020 , 124, 247001	7.4	7
10	Higher-order and crystalline topology in a phenomenological tight-binding model of lead telluride. <i>Physical Review Materials</i> , 2019 , 3,	3.2	7
9	Supersymmetric waves in Bose-Fermi mixtures. <i>Physical Review A</i> , 2016 , 93,	2.6	4
8	Structure of the entanglement entropy of (3+1)-dimensional gapped phases of matter. <i>Physical Review B</i> , 2018 , 97,	3.3	4

7	Physics of the Inverted Harmonic Oscillator: From the lowest Landau level to event horizons. <i>Annals of Physics</i> , 2021 , 168470	2.5	4
6	Topological crystalline phases in a disordered inversion-symmetric chain. <i>Physical Review B</i> , 2021 , 103,	3.3	3
5	Cubic 3D Chern photonic insulators with orientable large Chern vectors.. <i>Nature Communications</i> , 2021 , 12, 7330	17.4	3
4	Topology invisible to eigenvalues in obstructed atomic insulators. <i>Physical Review B</i> , 2022 , 105,	3.3	2
3	IrRep: symmetry eigenvalues and irreducible representations of ab initio band structures. <i>Computer Physics Communications</i> , 2021 , 108226	4.2	1
2	Optical response from charge-density waves in Weyl semimetals. <i>Physical Review B</i> , 2021 , 104,	3.3	1
1	Simulating higher-order topological insulators in density wave insulators. <i>Physical Review B</i> , 2021 , 103,	3.3	1