Oded Zilberberg

List of Publications by Year
in descending order

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79 papers	7,106 citations	147801 31 h-index	91884 69 g-index
81 all docs	81 docs citations	81 times ranked	4879 citing authors

#	Article	IF	Citations
1	Topological photonics. Reviews of Modern Physics, 2019, 91, .	45.6	2,190
2	Topological States and Adiabatic Pumping in Quasicrystals. Physical Review Letters, 2012, 109, 106402.	7.8	784
3	A Thouless quantum pump with ultracold bosonic atoms in an optical superlattice. Nature Physics, 2016, 12, 350-354.	16.7	449
4	Photonic topological boundary pumping as a probe of 4D quantum Hall physics. Nature, 2018, 553, 59-62.	27.8	335
5	Exploring 4D quantum Hall physics with a 2D topological charge pump. Nature, 2018, 553, 55-58.	27.8	292
6	Daubechies wavelets as a basis set for density functional pseudopotential calculations. Journal of Chemical Physics, 2008, 129, 014109.	3.0	289
7	Observation of Topological Phase Transitions in Photonic Quasicrystals. Physical Review Letters, 2013, 110, 076403.	7.8	266
8	Synthetic dimensions in integrated photonics: From optical isolation to four-dimensional quantum Hall physics. Physical Review A, 2016, 93, .	2.5	245
9	Topological Equivalence between the Fibonacci Quasicrystal and the Harper Model. Physical Review Letters, 2012, 109, 116404.	7.8	209
10	Four-Dimensional Quantum Hall Effect in a Two-Dimensional Quasicrystal. Physical Review Letters, 2013, 111, 226401.	7.8	181
11	Four-Dimensional Quantum Hall Effect with Ultracold Atoms. Physical Review Letters, 2015, 115, 195303.	7.8	168
12	Topological pumping over a photonic Fibonacci quasicrystal. Physical Review B, 2015, 91, .	3.2	151
13	A square-root topological insulator with non-quantized indices realized with photonic Aharonov-Bohm cages. Nature Communications, 2020, 11, 907.	12.8	115
14	Quantum interference of topological states of light. Science Advances, 2018, 4, eaat3187.	10.3	93
15	Electrically Tunable Flat Bands and Magnetism in Twisted Bilayer Graphene. Physical Review Letters, 2019, 123, 096802.	7.8	69
16	Measurement of Chern numbers through center-of-mass responses. Physical Review B, 2016, 93, .	3.2	64
17	Emergence of criticality through a cascade of delocalization transitions in quasiperiodic chains. Nature Physics, 2020, 16, 832-836.	16.7	64
18	Charge Sensing Amplification via Weak Values Measurement. Physical Review Letters, 2011, 106, 080405.	7.8	63

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19	Quasiperiodicity and topology transcend dimensions. Nature Physics, 2016, 12, 624-626.	16.7	56
20	Roadmap on topological photonics. JPhys Photonics, 2022, 4, 032501.	4.6	56
21	Six-dimensional quantum Hall effect and three-dimensional topological pumps. Physical Review B, 2018, 98, .	3.2	54
22	Dissipation-Induced Anomalous Multicritical Phenomena. Physical Review Letters, 2018, 120, 183603.	7.8	49
23	Weak Localization and Antilocalization in Nodal-Line Semimetals: Dimensionality and Topological Effects. Physical Review Letters, 2019, 122, 196603.	7.8	48
24	Classical Many-Body Time Crystals. Physical Review Letters, 2019, 123, 124301.	7.8	46
25	Measurement Back-Action in Stacked Graphene Quantum Dots. Nano Letters, 2015, 15, 6003-6008.	9.1	42
26	Hanbury Brownâ€“Twiss Interference of Anyons. Physical Review Letters, 2012, 109, 106802.	7.8	41
27	Quantum Transducer Using a Parametric Driven-Dissipative Phase Transition. Physical Review Letters, 2019, 123, 173601.	7.8	40
28	Controlled-NOT gate for multiparticle qubits and topological quantum computation based on parity measurements. Physical Review A, 2008, 77, .	2.5	39
29	Proposal for Detecting Nodal-Line Semimetal Surface States with Resonant Spin-Flipped Reflection. Physical Review Letters, 2018, 121, 166802.	7.8	37
30	Ultrasensitive hysteretic force sensing with parametric nonlinear oscillators. Physical Review E, 2016, 94, 022201.	2.1	33
31	Parametric Symmetry Breaking in a Nonlinear Resonator. Physical Review Letters, 2016, 117, 214101.	7.8	33
32	Dynamical many-body phases of the parametrically driven, dissipative Dicke model. Physical Review A, 2015, 92, .	2.5	31
33	Topology in quasicrystals [Invited]. Optical Materials Express, 2021, 11, 1143.	3.0	28
34	Higher-order topological insulators, topological pumps and the quantum Hall effect in high dimensions. Physical Review Research, 2020, 2, .	3.6	28
35	Emerging Dissipative Phases in a Superradiant Quantum Gas with Tunable Decay. Physical Review X, 2021, 11, .	8.9	28
36	Transport Spectroscopy of a Spin-Coherent Dot-Cavity System. Physical Review Letters, 2015, 115, 166603.	7.8	26

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37	Distinctive class of dissipation-induced phase transitions and their universal characteristics. Physical Review Research, 2021, 3, .	3.6	25
38	Topological spin excitations in Harper-Heisenberg spin chains. Physical Review Research, 2019, 1, .	3.6	25
39	Measuring topological invariants in small photonic lattices. New Journal of Physics, 2014, 16, 123013.	2.9	22
40	Null Values and Quantum State DiscrÃ¬mination. Physical Review Letters, 2013, 110, 170405.	7.8	21
41	A parametric symmetry breaking transducer. Applied Physics Letters, 2018, 112, .	3.3	16
42	Measuring cotunneling in its wake. Physical Review B, 2014, 90, .	3.2	15
43	Many-body localization in the interpolating Aubry-AndrÃ©-Fibonacci model. Physical Review Research, 2021, 3, .	3.6	15
44	Spin Detection via Parametric Frequency Conversion in a Membrane Resonator. Physical Review Applied, 2020, 14, .	3.8	14
45	Distinguishing phases using the dynamical response of driven-dissipative light-matter systems. Physical Review A, 2020, 101, .	2.5	14
46	Antichiral states in twisted graphene multilayers. Physical Review Research, 2020, 2, .	3.6	14
47	Hanbury Brown and Twiss correlations in quantum Hall systems. Physical Review B, 2013, 88, .	3.2	13
48	Spontaneous Valley Spirals in Magnetically Encapsulated Twisted Bilayer Graphene. Physical Review Letters, 2021, 126, 056803.	7.8	13
49	Open quantum systems beyond Fermi's golden rule: Diagrammatic expansion of the steady-state time-convolutionless master equations. Physical Review Research, 2021, 3, .	3.6	12
50	Enhanced compressibility due to repulsive interaction in the Harper model. Physical Review B, 2014, 89, .	3.2	11
51	Second-order topological modes in two-dimensional continuous media. Physical Review Research, 2021, 3, .	3.6	11
52	Cavity-Mediated Coherent Coupling between Distant Quantum Dots. Physical Review Letters, 2018, 120, 236801.	7.8	10
53	Rapid Flipping of Parametric Phase States. Physical Review Letters, 2019, 123, 254102.	7.8	10
54	Electron-Hole Interference in an Inverted-Band Semiconductor Bilayer. Physical Review X, 2020, 10, .	8.9	10

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55	Strong Parametric Coupling between Two Ultracoherent Membrane Modes. Physical Review Letters, 2022, 128, 094301.	7.8	10
56	Substrate-induced topological minibands in graphene. Physical Review B, 2018, 98, .	3.2	9
57	Ising machines with strong bilinear coupling. Physical Review Research, 2022, 4, .	3.6	9
58	Entanglement spectrum of mixed states. Physical Review A, 2018, 98, .	2.5	8
59	Long-range spin coherence in a strongly coupled all-electronic dot-cavity system. Physical Review B, 2017, 96, .	3.2	7
60	Detection of Fermi arcs in Weyl semimetals through surface negative refraction. Physical Review B, 2020, 101, .	3.2	7
61	Null weak values in multi-level systems. Physica Scripta, 2012, T151, 014014.	2.5	6
62	Tunneling into a Finite Luttinger Liquid Coupled to Noisy Capacitive Leads. Physical Review Letters, 2019, 122, 126802.	7.8	6
63	Field-effect transistor based on surface negative refraction in Weyl nanowire. APL Materials, 2020, 8, .	5.1	6
64	Luttinger liquid coupled to Ohmic-class environments. Physical Review Research, 2021, 3, .	3.6	6
65	On the effect of linear feedback and parametric pumping on a resonatorâ€™s frequency stability. New Journal of Physics, 2020, 22, 093049.	2.9	6
66	Many-body manifestation of interaction-free measurement: The Elitzur-Vaidman bomb. Physical Review B, 2016, 93, .	3.2	4
67	Sensing electrons during an adiabatic coherent transport passage. Physical Review B, 2019, 99, .	3.2	2
68	Towards four-dimensional photonics. Proceedings of SPIE, 2016, , .	0.8	1
69	Standard and Null Weak Values. , 2014, , 377-387.		1
70	Realization of a Non-Quantized Square-Root Topological Insulator Based on Photonic Aharonov-Bohm Cages. , 2019, , .		1
71	Guest Editorial for APL Special Topic on Synthetic Gauge Field Photonics. APL Photonics, 0, , .	5.7	1
72	Experimental Observation of Topological States and Adiabatic Pumping in 1D Photonic Quasicrystals. , 2011, , .		0

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73	Topology in a synthetic dimension as a tool for non-reciprocal photonic transport. , 2017, , .		0
74	Exploring Topological Photonics in Synthetic Dimensions. , 2019, , .		0
75	Quantum Interference of Topologically Protected Photonic States in a Laser-Written Waveguide Array. , 2019, , .		0
76	Optical circuits cross dimensions. Nature Photonics, 2020, 14, 68-69.	31.4	0
77	Second-order topological modes in all-dielectric systems. , 2021, , .		0
78	Topological Phase Transitions in Photonic Quasicrystals. , 2013, , .		0
79	Four-dimensional integrated photonic devices. SPIE Newsroom, 0, , .	0.1	0