Tomoki Ozawa

List of Publications by Year in descending order

63 papers	5,311 citations	172207 29 h-index	149479 56 g-index
66 all docs	66 docs citations	66 times ranked	3705 citing authors

#	Article	IF	Citations
1	Topological photonics. Reviews of Modern Physics, 2019, 91, .	16.4	2,190
2	Lasing in topological edge states of a one-dimensional lattice. Nature Photonics, 2017, 11, 651-656.	15.6	625
3	Synthetic dimensions in integrated photonics: From optical isolation to four-dimensional quantum Hall physics. Physical Review A, 2016, 93, .	1.0	245
4	Topological quantum matter in synthetic dimensions. Nature Reviews Physics, 2019, 1, 349-357.	11.9	216
5	Active topological photonics. Nanophotonics, 2020, 9, 547-567.	2.9	170
6	Four-Dimensional Quantum Hall Effect with Ultracold Atoms. Physical Review Letters, 2015, 115, 195303.	2.9	168
7	Measuring quantized circular dichroism in ultracold topological matter. Nature Physics, 2019, 15, 449-454.	6.5	106
8	Stability of Ultracold Atomic Bose Condensates with Rashba Spin-Orbit Coupling against Quantum and Thermal Fluctuations. Physical Review Letters, 2012, 109, 025301.	2.9	88
9	Orbital Edge States in a Photonic Honeycomb Lattice. Physical Review Letters, 2017, 118, 107403.	2.9	79
10	Anomalous and Quantum Hall Effects in Lossy Photonic Lattices. Physical Review Letters, 2014, 112, 133902.	2.9	75
11	Synthetic dimensions for cold atoms from shaking a harmonic trap. Physical Review A, 2017, 95, .	1.0	72
12	Type-III and Tilted Dirac Cones Emerging from Flat Bands in Photonic Orbital Graphene. Physical Review X, 2019, 9, .	2.8	72
13	Extracting the quantum metric tensor through periodic driving. Physical Review B, 2018, 97, .	1.1	70
14	Ground-state phases of ultracold bosons with Rashba-Dresselhaus spin-orbit coupling. Physical Review A, 2012, 85, .	1.0	68
15	Measurement of Chern numbers through center-of-mass responses. Physical Review B, 2016, 93, .	1.1	64
16	Experimental measurement of the quantum geometric tensor using coupled qubits in diamond. National Science Review, 2020, 7, 254-260.	4.6	59
17	Edge states in polariton honeycomb lattices. 2D Materials, 2015, 2, 034012.	2.0	58
18	Roadmap on topological photonics. JPhys Photonics, 2022, 4, 032501.	2.2	56

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19	Supercurrent and dynamical instability of spin-orbit-coupled ultracold Bose gases. Physical Review A, 2013, 87, .	1.0	54
20	Floquet topological system based on frequency-modulated classical coupled harmonic oscillators. Physical Review B, 2016, 93, .	1.1	47
21	Quantum Mechanics with a Momentum-Space Artificial Magnetic Field. Physical Review Letters, 2014, 113, 190403.	2.9	38
22	Synthetic Dimensions with Magnetic Fields and Local Interactions in Photonic Lattices. Physical Review Letters, 2017, 118, 013601.	2.9	38
23	Direct observation of photonic Landau levels and helical edge states in strained honeycomb lattices. Light: Science and Applications, 2020, 9, 144.	7.7	38
24	Relations between topology and the quantum metric for Chern insulators. Physical Review B, 2021, 104, .	1.1	38
25	KÃhler geometry and Chern insulators: Relations between topology and the quantum metric. Physical Review B, 2021, 104, .	1.1	38
26	Plastid-to-Nucleus Retrograde Signals Are Essential for the Expression of Nuclear Starch Biosynthesis Genes during Amyloplast Differentiation in Tobacco BY-2 Cultured Cells Â Â. Plant Physiology, 2011, 157, 518-530.	2.3	37
27	Renormalization of interactions of ultracold atoms in simulated Rashba gauge fields. Physical Review A, 2011, 84, .	1.0	37
28	Population imbalance and pairing in the BCS-BEC crossover of three-component ultracold fermions. Physical Review A, 2010, 82, .	1.0	34
29	Striped states in weakly trapped ultracold Bose gases with Rashba spin-orbit coupling. Physical Review A, 2012, 85, .	1.0	32
30	Two-slit diffraction with highly charged particles: Niels Bohr's consistency argument that the electromagnetic field must be quantized. Proceedings of the National Academy of Sciences of the United States of America, 2009, 106, 3035-3040.	3.3	30
31	Semi-Dirac Transport and Anisotropic Localization in Polariton Honeycomb Lattices. Physical Review Letters, 2020, 125, 186601.	2.9	29
32	Condensation Transition of Ultracold Bose Gases with Rashba Spin-Orbit Coupling. Physical Review Letters, 2013, 110, 085304.	2.9	27
33	Chandrasekhar-Clogston limit and critical polarization in a Fermi-Bose superfluid mixture. Physical Review A, 2014, 90, .	1.0	26
34	Discontinuities in the First and Second Sound Velocities at the Berezinskii-Kosterlitz-Thouless Transition. Physical Review Letters, 2014, 112, 025302.	2.9	26
35	Probing localization and quantum geometry by spectroscopy. Physical Review Research, 2019, 1, .	1.3	25
36	Steady-state Hall response and quantum geometry of driven-dissipative lattices. Physical Review B, 2018, 97, .	1.1	24

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37	Engineering geometrically flat Chern bands with Fubini-Study KÃhler structure. Physical Review B, 2021, 104, .	1.1	23
38	How to directly observe Landau levels in driven-dissipative strained honeycomb lattices. 2D Materials, 2015, 2, 034015.	2.0	21
39	Klein tunneling in driven-dissipative photonic graphene. Physical Review A, 2017, 96, .	1.0	21
40	Synthetic dimension band structures on a Si CMOS photonic platform. Science Advances, 2022, 8, eabk0468.	4.7	19
41	Propagating edge states in strained honeycomb lattices. Physical Review B, 2017, 95, .	1.1	18
42	Spinâ€“orbit coupling in a hexagonal ring of pendula. New Journal of Physics, 2017, 19, 055001.	1.2	17
43	Quantum Fisher information measurement and verification of the quantum CramÃ©râ€“Rao bound in a solid-state qubit. Npj Quantum Information, 2022, 8, .	2.8	17
44	Momentum-space Harper-Hofstadter model. Physical Review A, 2015, 92, .	1.0	14
45	Optical-lattice-assisted magnetic phase transition in a spin-orbit-coupled Bose-Einstein condensate. Physical Review A, 2016, 94, .	1.0	12
46	Quantum Hall effect in momentum space. Physical Review B, 2016, 93, .	1.1	8
47	Spatial and spectral mode-selection effects in topological lasers with frequency-dependent gain. APL Photonics, 2021, 6, .	3.0	8
48	Momentum-space Landau levels in driven-dissipative cavity arrays. Physical Review A, 2016, 93, .	1.0	7
49	Synthetic dimensions and topological chiral currents in mesoscopic rings. Physical Review Research, 2020, 2, .	1.3	6
50	Artificial magnetic fields in momentum space in spin-orbit-coupled systems. Physical Review A, 2015, 91, .	1.0	5
51	Artificial magnetic field for synthetic quantum matter without dynamical modulation. Physical Review A, 2021, 103, .	1.0	5
52	Condensation of bosons with Rashba-Dresselhaus spin-orbit coupling. Journal of Physics: Conference Series, 2014, 529, 012006.	0.3	4
53	Photonic Topological Materials: feature introduction. Optical Materials Express, 2021, 11, 1592.	1.6	3
54	Feel the gauge. Nature Physics, 2015, 11, 801-802.	6.5	1

#	Article	IF	Citations
55	Towards four-dimensional photonics. Proceedings of SPIE, 2016, , .	0.8	1
56	Observation of Photonic Landau Levels in Strained Honeycomb Lattices. , 2019, , .		1
57	Momentum-space Landau levels in arrays of coupled ring resonators. Proceedings of SPIE, 2016, , .	0.8	0
58	Exploring Topological Photonics in Synthetic Dimensions. , 2019, , .		0
59	Topological and Geometrical Effects in the Bulk Hall Response of Driven-Dissipative Photonic Lattices. , 2019, , .		0
60	Synthetic Dimension Photonics on a Si CMOS Platform. , 2021, , .		0
61	Photonic Topological Materials feature issue: publisherâ€™s note. Optical Materials Express, 2021, 11, 1410.	1.6	0
62	Semi-Dirac transport and localization in polaritonic graphene. , 2021, , .		0
63	Creation of Semi-Dirac Photons Through Topological Phase Transitions in Photonic Honeycomb Lattices. , 2018, , .		0