Takahiro Morimoto

List of Publications by Year
in descending order

91	5,148	81900 39	85541 71
papers	citations	h-index	g-index

91	91	91	4245
all docs	docs citations	times ranked	citing authors

#	Article	IF	Citations
1	Floquet engineering of electric polarization with two-frequency drive. Progress of Theoretical and Experimental Physics, 2022, 2022, .	6.6	6
2	Experimental signature of the parity anomaly in a semi-magnetic topological insulator. Nature Physics, 2022, 18, 390-394.	16.7	45
3	Photovoltaic effect by soft phonon excitation. Proceedings of the National Academy of Sciences of the United States of America, 2022, 119, e2122313119.	7.1	7
4	Optical response of the Leggett mode in multiband superconductors in the linear response regime. Physical Review B, 2022, 105, .	3.2	5
5	Observation of a Flat and Extended Surface State in a Topological Semimetal. Materials, 2022, 15, 2744.	2.9	1
6	Thermal Hall responses in frustrated honeycomb spin systems. Physical Review B, 2022, 106, .	3.2	3
7	Topology and Symmetry of Quantum Materials via Nonlinear Optical Responses. Annual Review of Condensed Matter Physics, 2021, 12, 247-272.	14.5	54
8	A van der Waals interface that creates in-plane polarization and a spontaneous photovoltaic effect. Science, 2021, 372, 68-72.	12.6	109
9	Terahertz emission spectroscopy of ultrafast exciton shift current in the noncentrosymmetric semiconductor CdS. Physical Review B, 2021, 103, .	3.2	9
10	Electric polarization and nonlinear optical effects in noncentrosymmetric magnets. Physical Review B, 2021, 104, .	3.2	6
11	Right and Left in Quantum Dynamics of Solids. , 2021, , 103-124.		0
12	Current-induced second harmonic generation in inversion-symmetric Dirac and Weyl semimetals. Physical Review B, 2021, 104, .	3.2	25
13	Topological charge pumping in quasiperiodic systems characterized by the Bott index. Physical Review B, 2021, 104, .	3.2	5
14	Quadratic optical responses in a chiral magnet. Physical Review B, 2021, 104, .	3.2	5
15	Large non-reciprocal charge transport mediated by quantum anomalous Hall edge states. Nature Nanotechnology, 2020, 15, 831-835.	31.5	20
16	Defect tolerant zero-bias topological photocurrent in a ferroelectric semiconductor. Proceedings of the National Academy of Sciences of the United States of America, 2020, 117, 20411-20415.	7.1	27
17	Helicity-dependent photocurrents in the chiral Weyl semimetal RhSi. Science Advances, 2020, 6, eaba0509.	10.3	129
18	Photocurrent of exciton polaritons. Physical Review B, 2020, 102, .	3.2	3

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19	Optical rotation in thin chiral/twisted materials and the gyrotropic magnetic effect. Physical Review B, 2020, 101, .	3.2	7
20	Transport, magnetic and optical properties of Weyl materials. Nature Reviews Materials, 2020, 5, 621-636.	48.7	96
21	Manipulating long-lived topological surface photovoltage in bulk-insulating topological insulators Bi2Se3 and Bi2Te3. Npj Quantum Materials, 2020, 5, .	5.2	18
22	Nonreciprocal Landauâ€“Zener tunneling. Communications Physics, 2020, 3, .	5.3	25
23	Current response of nonequilibrium steady states in the Landau-Zener problem: Nonequilibrium Green's function approach. Physical Review B, 2020, 102, .	3.2	4
24	Difference frequency generation in topological semimetals. Physical Review Research, 2020, 2, .	3.6	51
25	Efficient prediction of time- and angle-resolved photoemission spectroscopy measurements on a nonequilibrium BCS superconductor. Physical Review B, 2019, 99, .	3.2	6
26	Spectral dynamics of shift current in ferroelectric semiconductor SbSI. Proceedings of the National Academy of Sciences of the United States of America, 2019, 116, 1929-1933.	7.1	79
27	Quantum phase transitions beyond Landau-Ginzburg theory in one-dimensional space revisited. Physical Review B, 2019, 99, .	3.2	30
28	Ultrafast spectroscopy of shift-current in ferroelectric semiconductor Sn2P2S6. Applied Physics Letters, 2019, 114, .	3.3	18
29	Shift current from electromagnon excitations in multiferroics. Physical Review B, 2019, 100, .	3.2	11
30	Nonlinear optical effects in inversion-symmetry-breaking superconductors. Physical Review B, 2019, 100, .	3.2	22
31	Diagrammatic approach to nonlinear optical response with application to Weyl semimetals. Physical Review B, 2019, 99, .	3.2	110
32	Topological Floquet-Thouless Energy Pump. Physical Review Letters, 2018, 120, 150601.	7.8	54
33	Nonreciprocal current from electron interactions in noncentrosymmetric crystals: roles of time reversal symmetry and dissipation. Scientific Reports, 2018, 8, 2973.	3.3	36
34	Current-Voltage Characteristic and Shot Noise of Shift Current Photovoltaics. Physical Review Letters, 2018, 121, 267401.	7.8	32
35	Resonance-enhanced optical nonlinearity in the Weyl semimetal TaAs. Physical Review B, 2018, 98, .	3.2	83
36	Chiral optical response of multifold fermions. Physical Review B, 2018, 98, .	3.2	118

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37	Symmetry protected topological phases in two-orbital SU(4) fermionic atoms. Physical Review B, 2018, 98, .	3.2	6
38	ZN Berry Phases in Symmetry Protected Topological Phases. Physical Review Letters, 2018, 120, 247202.	7.8	31
39	Topological semimetals protected by off-centered symmetries in nonsymmorphic crystals. Physical Review B, 2017, 95, .	3.2	86
40	Shift charge and spin photocurrents in Dirac surface states of topological insulator. Physical Review B, 2017, 95, .	3.2	50
41	Giant anisotropic nonlinear optical response in transition metal monopnictide Weyl semimetals. Nature Physics, 2017, 13, 350-355.	16.7	325
42	Concept of Quantum Geometry in Optoelectronic Processes in Solids: Application to Solar Cells. Advanced Materials, 2017, 29, 1603345.	21.0	50
43	Quantitative relationship between polarization differences and the zone-averaged shift photocurrent. Physical Review B, 2017, 96, .	3.2	70
44	Dynamically enriched topological orders in driven two-dimensional systems. Physical Review B, 2017, 95, .	3.2	47
45	Quantized circular photogalvanic effect in Weyl semimetals. Nature Communications, 2017, 8, 15995.	12.8	431
46	Large Bulk Photovoltaic Effect and Spontaneous Polarization of Single-Layer Monochalcogenides. Physical Review Letters, 2017, 119, 067402.	7.8	182
47	Floquet topological phases protected by time glide symmetry. Physical Review B, 2017, 95, .	3.2	64
48	Nonlinear spin current generation in noncentrosymmetric spin-orbit coupled systems. Physical Review B, 2017, 95, .	3.2	56
49	Chiral Floquet Phases of Many-Body Localized Bosons. Physical Review X, 2016, 6, .	8.9	111
50	Semiclassical theory of nonlinear magneto-optical responses with applications to topological Dirac/Weyl semimetals. Physical Review B, 2016, 94, .	3.2	132
51	Chiral Anomaly and Giant Magnetochiral Anisotropy in Noncentrosymmetric Weyl Semimetals. Physical Review Letters, 2016, 117, 146603.	7.8	55
52	Classification of Interacting Topological Floquet Phases in One Dimension. Physical Review X, 2016, 6, .	8.9	181
53	Topological aspects of nonlinear excitonic processes in noncentrosymmetric crystals. Physical Review B, 2016, 94, .	3.2	51
54	Scaling laws for nonlinear electromagnetic responses of Dirac fermion. Physical Review B, 2016, 93, .	3.2	10

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55	Topological nature of nonlinear optical effects in solids. Science Advances, 2016, 2, e1501524.	10.3	344
56	Weyl Mott Insulator. Scientific Reports, 2016, 6, 19853.	3.3	47
57	Geometric Hall effects in topological insulatorÂheterostructures. Nature Physics, 2016, 12, 555-559.	16.7	146
58	Topological phases protected by reflection symmetry and cross-cap states. Physical Review B, 2015, 91, .	3.2	33
59	Anderson localization and the topology of classifying spaces. Physical Review B, 2015, 91, .	3.2	34
60	Topological charges of three-dimensional Dirac semimetals with rotation symmetry. Physical Review B, 2015, 92, .	3.2	60
61	Bosonic symmetry-protected topological phases with reflection symmetry. Physical Review B, 2015, 92, .	3.2	14
62	Terahertz Dynamics of a Topologically Protected State: Quantum Hall Effect Plateaus near the Cyclotron Resonance of a Two-Dimensional Electron Gas. Physical Review Letters, 2015, 115, 247401.	7.8	10
63	Breakdown of the topological classification<mml:math xmlns:mml="http://www.w3.org/1998/Math/MathML"><mml:mi mathvariant="double-struck">Z</mml:mi></mml:math>for gapped phases of noninteracting fermions by quartic interactions. Physical Review B, 2015, 92, .	3.2	87
64	Charge and Spin Transport in Edge Channels of aÎ½=0Quantum Hall System on the Surface of Topological Insulators. Physical Review Letters, 2015, 114, 146803.	7.8	24
65	Topological magnetoelectric effects in thin films of topological insulators. Physical Review B, 2015, 92, .	3.2	127
66	CPT theorem and classification of topological insulators and superconductors. Physical Review B, 2014, 90, .	3.2	38
67	<mml:math xmlns:mml="http://www.w3.org/1998/Math/MathML"><mml:msub><mml:mi mathvariant="double-struck">Z</mml:mi><mml:mn>3</mml:mn></mml:msub></mml:math>symmetry-protected topological phases in the SU(3) AKLT model. Physical Review B, 2014, 90, .	3.2	39
68	Stability of surface states of weak<mml:math xmlns:mml="http://www.w3.org/1998/Math/MathML"><mml:msub><mml:mi mathvariant="double-struck">Z</mml:mi><mml:mn>2</mml:mn></mml:msub></mml:math>topological insulators and superconductors. Physical Review B, 2014, 89, .	3.2	27
69	Topological zero modes and Dirac points protected by spatial symmetry and chiral symmetry. Physical Review B, 2014, 90, .	3.2	56
70	Weyl and Dirac semimetals with<mml:math xmlns:mml="http://www.w3.org/1998/Math/MathML"><mml:msub><mml:mi mathvariant="double-struck">Z</mml:mi><mml:mn>2</mml:mn></mml:msub></mml:math>topological charge. Physical Review B, 2014, 89, .	3.2	75
71	Gate-induced Dirac cones in multilayer graphenes. Physical Review B, 2013, 87, .	3.2	20
72	Quantum Faraday and Kerr rotations in graphene. Nature Communications, 2013, 4, 1841.	12.8	167

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73	Plateau structure in the Faraday rotation in the graphene quantum Hall system and the frequency-driven two-parameter scaling. , 2013, , .		0
74	Topological classification with additional symmetries from Clifford algebras. Physical Review B, 2013, 88, .	3.2	225
75	Chiral symmetry and its manifestation in optical responses in graphene: interaction and multilayers. New Journal of Physics, 2013, 15, 035023.	2.9	17
76	Theory for optical Hall conductivity in the trilayer graphene in the quantum Hall regime. Journal of Physics: Conference Series, 2013, 456, 012028.	0.4	0
77	Two-parameter flow of<mml:math xmlns:mml="http://www.w3.org/1998/Math/MathML" display="inline"><mml:mrow><mml:msub><mml:mi>Ïƒ</mml:mi><mml:mrow><mml:mi>x</mml:mi><mml:mi>x</mml:mi></mml:mrow xmlns:mml="http://www.w3.org/1998/Math/MathML"		

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91	Cyclotron radiation and emission in graphene. Physical Review B, 2008, 78, .	3.2	59