

# Wu-Ming Liu

## List of Publications by Citations

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100  
papers

1,575  
citations

21  
h-index

35  
g-index

111  
ext. papers

1,888  
ext. citations

3.6  
avg. IF

5.04  
L-index

#	Paper	IF	Citations
100	Nonlinear effects in interference of bose-einstein condensates. <i>Physical Review Letters</i> , <b>2000</b> , 84, 2294-7	7.4	173
99	Quantum spin Hall insulators with interactions and lattice anisotropy. <i>Physical Review B</i> , <b>2012</b> , 85,	3.3	113
98	Adiabatic Dynamics of Local Spin Moments in Itinerant Magnets. <i>Physical Review Letters</i> , <b>1999</b> , 83, 207-210	7.4	99
97	Kondo metal and ferrimagnetic insulator on the triangular kagome lattice. <i>Physical Review Letters</i> , <b>2012</b> , 108, 246402	7.4	76
96	Interacting Dirac fermions on honeycomb lattice. <i>Physical Review B</i> , <b>2010</b> , 82,	3.3	72
95	Stacked bilayer phosphorene: strain-induced quantum spin Hall state and optical measurement. <i>Scientific Reports</i> , <b>2015</b> , 5, 13927	4.9	55
94	Supersolid with nontrivial topological spin textures in spin-orbit-coupled Bose gases. <i>Physical Review A</i> , <b>2015</b> , 91,	2.6	45
93	Circular-hyperbolic skyrmion in rotating pseudo-spin-1/2 Bose-Einstein condensates with spin-orbit coupling. <i>Physical Review A</i> , <b>2012</b> , 86,	2.6	35
92	The d-p band-inversion topological insulator in bismuth-based skutterudites. <i>Scientific Reports</i> , <b>2014</b> , 4, 5131	4.9	30
91	Controlled Electromagnetically Induced Transparency and Fano Resonances in Hybrid BEC-Optomechanics. <i>Scientific Reports</i> , <b>2016</b> , 6, 22651	4.9	30
90	Vortex chain in anisotropic spin-orbit-coupled spin-1 Bose-Einstein condensates. <i>Physical Review A</i> , <b>2013</b> , 87,	2.6	29
89	Theory of ferromagnetic resonance in magnetic trilayers with a tilted spin polarizer. <i>Physical Review B</i> , <b>2008</b> , 78,	3.3	28
88	Quantum phase transition in an array of coupled dissipative cavities. <i>Physical Review A</i> , <b>2011</b> , 83,	2.6	27
87	Fragmentation of spin-orbit-coupled spinor Bose-Einstein condensates. <i>Physical Review A</i> , <b>2014</b> , 89,	2.6	26
86	Ground-state properties of spin-orbit-coupled Bose gases for arbitrary interactions. <i>Physical Review A</i> , <b>2013</b> , 87,	2.6	26
85	Zitterbewegung effect in spin-orbit-coupled spin-1 ultracold atoms. <i>Physical Review A</i> , <b>2013</b> , 87,	2.6	24
84	Non-autonomous solitons in inhomogeneous nonlinear media with distributed dispersion. <i>Nonlinear Dynamics</i> , <b>2019</b> , 97, 449-469	5	23

83	Frequency-selected enhancement of high-order-harmonic generation by interference of degenerate Rydberg states in a few-cycle laser pulse. <i>Physical Review A</i> , <b>2012</b> , 86,	2.6	23
82	Double-quantum spin vortices in SU(3) spin-orbit-coupled Bose gases. <i>Physical Review A</i> , <b>2016</b> , 94,	2.6	23
81	Spatiotemporal engineering of matter-wave solitons in Bose-Einstein condensates. <i>Physics Reports</i> , <b>2021</b> , 899, 1-62	27.7	23
80	Electron-phonon coupling and its implication for the superconducting topological insulators. <i>Scientific Reports</i> , <b>2015</b> , 5, 8964	4.9	21
79	Collapses and revivals of exciton emission in a semiconductor microcavity: Detuning and phase-space filling effects. <i>Physical Review A</i> , <b>2004</b> , 70,	2.6	21
78	Universal Bose gases near resonance: A rigorous solution. <i>Physical Review A</i> , <b>2014</b> , 89,	2.6	20
77	Tunable bistability in hybrid Bose-Einstein condensate optomechanics. <i>Scientific Reports</i> , <b>2015</b> , 5, 10612	4.9	19
76	Tuning near-gap electronic structure, interface charge transfer and visible light response of hybrid doped graphene and Ag <sub>3</sub> PO <sub>4</sub> composite: Dopant effects. <i>Scientific Reports</i> , <b>2016</b> , 6, 22267	4.9	19
75	Quantum magnetic phase transition in square-octagon lattice. <i>Scientific Reports</i> , <b>2014</b> , 4, 6918	4.9	18
74	Crystallized and amorphous vortices in rotating atomic-molecular Bose-Einstein condensates. <i>Scientific Reports</i> , <b>2014</b> , 4, 4224	4.9	16
73	Auxiliary-cavity-assisted ground-state cooling of an optically levitated nanosphere in the unresolved-sideband regime. <i>Physical Review A</i> , <b>2017</b> , 96,	2.6	16
72	Layer anti-ferromagnetism on bilayer honeycomb lattice. <i>Scientific Reports</i> , <b>2014</b> , 4, 5367	4.9	16
71	Current-driven ferromagnetic resonance in magnetic trilayers with a tilted spin polarizer. <i>Journal of Applied Physics</i> , <b>2009</b> , 105, 043908	2.5	16
70	Ground states, solitons and spin textures in spin-1 Bose-Einstein condensates. <i>Frontiers of Physics</i> , <b>2013</b> , 8, 302-318	3.7	15
69	Dirac monopoles with a polar-core vortex induced by spin-orbit coupling in spinor Bose-Einstein condensates. <i>Physical Review A</i> , <b>2017</b> , 95,	2.6	15
68	The confinement induced resonance in spin-orbit coupled cold atoms with Raman coupling. <i>Scientific Reports</i> , <b>2014</b> , 4, 4992	4.9	14
67	Collective modes of spin-orbit-coupled Fermi gases in the repulsive regime. <i>Physical Review A</i> , <b>2013</b> , 87,	2.6	14
66	Stability of a two-dimensional homogeneous spin-orbit-coupled boson system. <i>Physical Review A</i> , <b>2013</b> , 87,	2.6	14

65	Spin-orbit-coupling-induced backaction cooling in cavity optomechanics with a Bose-Einstein condensate. <i>Physical Review A</i> , <b>2017</b> , 95,	2.6	13
64	Feynman relation of Bose-Einstein condensates with spin-orbit coupling. <i>Physical Review A</i> , <b>2012</b> , 86,	2.6	13
63	Three-dimensional ring vortex solitons and their stabilities in Bose-Einstein condensates under magnetic confinement. <i>Physical Review A</i> , <b>2012</b> , 86,	2.6	13
62	Tunable topological quantum states in three- and two-dimensional materials. <i>Frontiers of Physics</i> , <b>2015</b> , 10, 161-176	3.7	12
61	Exact solutions for generalized variable-coefficients Ginzburg-Landau equation: Application to Bose-Einstein condensates with multi-body interatomic interactions. <i>Journal of Mathematical Physics</i> , <b>2012</b> , 53, 123703	1.2	12
60	Drag force on a moving impurity in a spin-orbit-coupled Bose-Einstein condensate. <i>Physical Review A</i> , <b>2014</b> , 89,	2.6	11
59	The polarization and the fundamental sensitivity of K (Cs)-Rb-He hybrid optical pumping spin exchange relaxation free atomic magnetometers. <i>Scientific Reports</i> , <b>2017</b> , 7, 6776	4.9	11
58	Quantum phase transitions for two coupled cavities with dipole-interaction atoms. <i>Physical Review A</i> , <b>2011</b> , 84,	2.6	11
57	Antiferromagnetic metal and Mott transition on Shastry-Sutherland lattice. <i>Scientific Reports</i> , <b>2014</b> , 4, 4829	4.9	10
56	Phase transitions of the ionic Hubbard model on the honeycomb lattice. <i>Scientific Reports</i> , <b>2015</b> , 5, 9810	4.9	10
55	Topological defects and inhomogeneous spin patterns induced by the quadratic Zeeman effect in spin-1 Bose-Einstein condensates. <i>Physical Review A</i> , <b>2015</b> , 91,	2.6	10
54	Quantum dynamical speedup in correlated noisy channels. <i>Physical Review A</i> , <b>2019</b> , 100,	2.6	9
53	Quantum magnetism of spinor bosons in optical lattices with synthetic non-Abelian gauge fields. <i>Physical Review A</i> , <b>2015</b> , 92,	2.6	9
52	Collapse of the superradiant phase and multiple quantum phase transitions for Bose-Einstein condensates in an optomechanical cavity. <i>Physical Review A</i> , <b>2016</b> , 93,	2.6	8
51	Finite-field calculation of static polarizabilities and hyperpolarizabilities of In <sup>+</sup> and Sr. <i>Physical Review A</i> , <b>2015</b> , 92,	2.6	8
50	Quantum dynamics of a vortex in a Josephson junction. <i>Physical Review B</i> , <b>2005</b> , 72,	3.3	8
49	Dynamics of vortex quadrupoles in nonrotating trapped Bose-Einstein condensates. <i>Scientific Reports</i> , <b>2016</b> , 6, 29066	4.9	7
48	Negative differential conductance and super-Poissonian shot noise in single-molecule magnet junctions. <i>Scientific Reports</i> , <b>2015</b> , 5, 8730	4.9	7

47	Coherence lengths in attractively interacting Fermi gases with spin-orbit coupling. <i>Physical Review A</i> , <b>2014</b> , 90,	2.6	7
46	Exact wave solutions for Bose-Einstein condensates with time-dependent scattering length and spatiotemporal complicated potential. <i>Journal of Mathematical Physics</i> , <b>2013</b> , 54, 051501	1.2	7
45	Bragg diffraction of interacting Bose-Einstein condensates. <i>Physical Review A</i> , <b>2010</b> , 82,	2.6	7
44	Robust large-gap quantum spin Hall insulators in methyl-functionalized III-Bi buckled honeycombs. <i>Physical Review Materials</i> , <b>2018</b> , 2,	3.2	7
43	Finite-Component Multicriticality at the Superradiant Quantum Phase Transition. <i>Physical Review Letters</i> , <b>2020</b> , 125, 050402	7.4	7
42	Magnetic diversity in stable and metastable structures of CrAs. <i>Physical Review B</i> , <b>2017</b> , 96,	3.3	6
41	Non-Markovian full counting statistics in quantum dot molecules. <i>Scientific Reports</i> , <b>2015</b> , 5, 8978	4.9	6
40	Localized spatially nonlinear matter waves in atomic-molecular Bose-Einstein condensates with space-modulated nonlinearity. <i>Scientific Reports</i> , <b>2016</b> , 6, 29566	4.9	6
39	Negative magnetoresistance and spin filtering of spin-coupled di-iron-oxo clusters. <i>Physical Review B</i> , <b>2014</b> , 89,	3.3	6
38	Quantum phase transition of cold atoms trapped in optical lattices. <i>Frontiers of Physics</i> , <b>2012</b> , 7, 223-234	3.7	6
37	Dynamics of Bose-Einstein condensates near Feshbach resonance in external potential. <i>Frontiers of Physics</i> , <b>2011</b> , 6, 46-60	3.7	6
36	Itinerant magnetic phases and quantum Lifshitz transitions in a three-dimensional repulsively interacting Fermi gas with spin-orbit coupling. <i>Physical Review B</i> , <b>2016</b> , 94,	3.3	5
35	Tuning a magnetic Feshbach resonance with spatially modulated laser light. <i>Physical Review A</i> , <b>2014</b> , 90,	2.6	5
34	Topological transition from superfluid vortex rings to isolated knots and links. <i>Physical Review A</i> , <b>2020</b> , 102,	2.6	5
33	Universal Dissipationless Dynamics in Gaussian Continuous-Variable Open Systems. <i>Physical Review Letters</i> , <b>2018</b> , 121, 220403	7.4	5
32	The effect of oscillator and dipole-dipole interaction on multiple optomechanically induced transparency in cavity optomechanical system. <i>Scientific Reports</i> , <b>2018</b> , 8, 14367	4.9	5
31	Defective Majorana zero modes in a non-Hermitian Kitaev chain. <i>Physical Review B</i> , <b>2021</b> , 104,	3.3	4
30	Interface-induced ferroelectric domains and charged domain walls in BiFeO <sub>3</sub> /SrTiO <sub>3</sub> superlattices. <i>Physical Review B</i> , <b>2021</b> , 103,	3.3	4

29	Superfluid density and collective modes of fermion superfluid in dice lattice. <i>Scientific Reports</i> , <b>2021</b> , 11, 13572	4.9	4
28	Classification of magnons in rotated ferromagnetic Heisenberg model and their competing responses in transverse fields. <i>Physical Review B</i> , <b>2016</b> , 94,	3.3	4
27	Three-Dimensional Skyrmions with Arbitrary Topological Number in a Ferromagnetic Spin-1 Bose-Einstein Condensate. <i>Scientific Reports</i> , <b>2019</b> , 9, 18804	4.9	4
26	Classification of the quantum chaos in colored Sachdev-Ye-Kitaev models. <i>Physical Review D</i> , <b>2020</b> , 101,	4.9	3
25	Unified and Exact Framework for Variance-Based Uncertainty Relations. <i>Scientific Reports</i> , <b>2020</b> , 10, 15049	4.9	3
24	Management of modulated wave solitons in a two-dimensional nonlinear transmission network. <i>European Physical Journal B</i> , <b>2019</b> , 92, 1	1.2	3
23	Multiply quantized and fractional skyrmions in a binary dipolar Bose-Einstein condensate under rotation. <i>Physical Review A</i> , <b>2017</b> , 96,	2.6	3
22	Quantum tunneling of ultracold atoms in optical traps. <i>Frontiers of Physics</i> , <b>2014</b> , 9, 137-152	3.7	3
21	Near-infrared dual-wavelength plasmonic switching and digital metasurface unveiled by plasmonic Fano resonance. <i>Nanophotonics</i> , <b>2020</b> , 10, 947-957	6.3	3
20	Formation of vortex rings and hopfions in trapped Bose-Einstein condensates. <i>Physics of Fluids</i> , <b>2021</b> , 33, 027105	4.4	3
19	Quantum phase transitions of light in a dissipative Dicke-Bose-Hubbard model. <i>Physical Review A</i> , <b>2017</b> , 96,	2.6	2
18	Quantum speedup in noninertial frames. <i>European Physical Journal C</i> , <b>2020</b> , 80, 1	4.2	2
17	Topological supersolidity of dipolar Fermi gases in a spin-dependent optical lattice. <i>Journal of Physics Condensed Matter</i> , <b>2020</b> , 32, 235701	1.8	2
16	Itinerant chiral ferromagnetism in a trapped Rashba spin-orbit-coupled Fermi gas. <i>Physical Review A</i> , <b>2016</b> , 93,	2.6	2
15	Adjustable electromagnetically induced transparency and absorption, optical controlled-phase gate in semiconductor quantum wells. <i>European Physical Journal D</i> , <b>2014</b> , 68, 1	1.3	2
14	On the propagation of nonlinear signals in nonlinear transmission lines. <i>European Physical Journal Plus</i> , <b>2013</b> , 128, 1	3.1	2
13	Fermionic non-Abelian fractional Chern insulators from dipolar interactions. <i>Physical Review B</i> , <b>2015</b> , 91,	3.3	2
12	Modulational instability of Bose-Einstein condensate in a complex polynomial in elliptic Jacobian functions potential. <i>European Physical Journal B</i> , <b>2013</b> , 86, 1	1.2	2

11	Excitation spectra and hard-core thermodynamics of bosonic atoms in optical superlattices. <i>Physical Review A</i> , <b>2015</b> , 91,	2.6	1
10	Nonlinear dynamics of a Bose-Einstein condensate excited by a vortex ring phase imprinting. <i>Results in Physics</i> , <b>2021</b> , 22, 103828	3.7	1
9	Topological Transition and Majorana Zero Modes in 2D Non-Hermitian Chiral Superconductor with Anisotropy.. <i>Journal of Physics Condensed Matter</i> , <b>2022</b> ,	1.8	1
8	Anomalous non-Abelian statistics for non-Hermitian generalization of Majorana zero modes. <i>Physical Review B</i> , <b>2021</b> , 104,	3.3	1
7	Enhancing the performance of an open quantum battery via environment engineering.. <i>Physical Review E</i> , <b>2021</b> , 104, 064143	2.4	1
6	Tunable spinful matter wave valve. <i>Scientific Reports</i> , <b>2019</b> , 9, 8653	4.9	0
5	Robust Majorana edge modes with low frequency multiple time periodic driving. <i>Journal of Physics Condensed Matter</i> , <b>2020</b> , 32, 355404	1.8	0
4	Supersolid phase of cold atoms. <i>European Physical Journal D</i> , <b>2020</b> , 74, 1	1.3	0
3	Social distancing mediated generalized model to predict epidemic spread of COVID-19. <i>Nonlinear Dynamics</i> , <b>2021</b> , 106, 1-9	5	0
2	Ergodic time scale and transitive dynamics in single-particle tracking. <i>Physical Review E</i> , <b>2021</b> , 103, 0321364	3.4	0
1	Multipartite Entanglement Structure Resolution Analyzer Based on Quantum-Control-Assisted Multipartite Uncertainty Relation. <i>Annalen Der Physik</i> , <b>2021</b> , 533, 2100014	2.6	