

# Han Pu

## List of Publications by Year in descending order

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148  
papers

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50170

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149  
all docs

149  
docs citations

149  
times ranked

2402  
citing authors

#	ARTICLE	IF	CITATIONS
1	Quantum Spins Mixing in Spinor Bose-Einstein Condensates. Physical Review Letters, 1998, 81, 5257-5261.	2.9	566
2	Properties of Two-Species Bose Condensates. Physical Review Letters, 1998, 80, 1130-1133.	2.9	359
3	Spin-Orbit Coupled Weakly Interacting Bose-Einstein Condensates in Harmonic Traps. Physical Review Letters, 2012, 108, 010402.	2.9	273
4	Spin-mixing dynamics of a spinor Bose-Einstein condensate. Physical Review A, 1999, 60, 1463-1470.	1.0	207
5	Probing Anisotropic Superfluidity in Atomic Fermi Gases with Rashba Spin-Orbit Coupling. Physical Review Letters, 2011, 107, 195304.	2.9	194
6	Collective Excitations, Metastability, and Nonlinear Response of a Trapped Two-Species Bose-Einstein Condensate. Physical Review Letters, 1998, 80, 1134-1137.	2.9	186
7	Creating Macroscopic Atomic Einstein-Podolsky-Rosen States from Bose-Einstein Condensates. Physical Review Letters, 2000, 85, 3987-3990.	2.9	185
8	Half-quantum vortex state in a spin-orbit-coupled Bose-Einstein condensate. Physical Review A, 2012, 85, .	1.0	143
9	Coherent disintegration and stability of vortices in trapped Bose condensates. Physical Review A, 1999, 59, 1533-1537.	1.0	137
10	Manifestations of the Roton Mode in Dipolar Bose-Einstein Condensates. Physical Review Letters, 2008, 100, 245302.	2.9	133
11	Stable Solitons in Three Dimensional Free Space without the Ground State: Self-Trapped Bose-Einstein Condensates with Spin-Orbit Coupling. Physical Review Letters, 2015, 115, 253902.	2.9	132
12	Stability Signature in Two-Species Dilute Bose-Einstein Condensates. Physical Review Letters, 1997, 79, 3105-3108.	2.9	106
13	Spontaneous Spin Textures in Dipolar Spinor Condensates. Physical Review Letters, 2006, 97, 020401.	2.9	100
14	Phase-space deformation of a trapped dipolar Fermi gas. Physical Review A, 2008, 77, .	1.0	98
15	Creating a Stable Molecular Condensate Using a Generalized Raman Adiabatic Passage Scheme. Physical Review Letters, 2004, 93, 250403.	2.9	95
16	Adiabatic Condition for Nonlinear Systems. Physical Review Letters, 2007, 98, 050406.	2.9	93
17	Quantum Phases of Dipolar Spinor Condensates. Physical Review Letters, 2004, 93, 040403.	2.9	92
18	Vortex structures in dipolar condensates. Physical Review A, 2006, 73, .	1.0	92

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19	Controlling Condensate Collapse and Expansion with an Optical Feshbach Resonance. Physical Review Letters, 2013, 110, 123201.	2.9	91
20	Ferromagnetism in a Lattice of Bose-Einstein Condensates. Physical Review Letters, 2001, 87, 140405.	2.9	90
21	Structural Phase Transitions of Vortex Matter in an Optical Lattice. Physical Review Letters, 2005, 94, 190401.	2.9	84
22	Symmetry breaking and self-trapping of a dipolar Bose-Einstein condensate in a double-well potential. Physical Review A, 2009, 79, .	1.0	78
23	Probing Majorana fermions in spin-orbit-coupled atomic Fermi gases. Physical Review A, 2012, 85, .	1.0	78
24	Rashba spin-orbit-coupled atomic Fermi gases. Physical Review A, 2011, 84, .	1.0	77
25	Formation and transformation of vector solitons in two-species Bose-Einstein condensates with a tunable interaction. Physical Review A, 2009, 79, .	1.0	74
26	Generation of arbitrary Dicke states in spinor Bose-Einstein condensates. Optics Communications, 2001, 188, 149-154.	1.0	65
27	Strongly interacting quantum gases in one-dimensional traps. Physical Review A, 2015, 91, .	1.0	65
28	Spin Waves in a Bose-Einstein-Condensed Atomic Spin Chain. Physical Review Letters, 2002, 88, 060401.	2.9	63
29	Dynamical properties of dipolar Fermi gases. New Journal of Physics, 2009, 11, 055017.	1.2	63
30	FERMI GASES WITH SYNTHETIC SPIN-ORBIT COUPLING. Annual Review of Cold Atoms and Molecules, 2014, , 81-143.	2.8	60
31	Cavity-assisted dynamical spin-orbit coupling in cold atoms. Physical Review A, 2014, 89, .	1.0	58
32	Wave Mixing of Optical Pulses and Bose-Einstein Condensates. Physical Review Letters, 2003, 91, 150407.	2.9	57
33	Magnetization, squeezing, and entanglement in dipolar spin-1 condensates. Physical Review A, 2006, 73, .	1.0	57
34	Self-trapping of a Fermi superfluid in a double-well potential in the Bose-Einstein-condensate-unitarity crossover. Physical Review A, 2009, 80, .	1.0	55
35	Fundamental limit for integrated atom optics with Bose-Einstein condensates. Physical Review A, 2003, 68, .	1.0	54
36	Anderson localization of cold atomic gases with effective spin-orbit interaction in a quasiperiodic optical lattice. Physical Review A, 2013, 87, .	1.0	53

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37	Effective-mass analysis of Bose-Einstein condensates in optical lattices: Stabilization and levitation. <i>Physical Review A</i> , 2003, 67, .	1.0	52
38	Ground-State Phase Diagram of a Spin-Orbital-Angular-Momentum Coupled Bose-Einstein Condensate. <i>Physical Review Letters</i> , 2019, 122, 110402.	2.9	52
39	Spatial density oscillations in trapped dipolar condensates. <i>Physical Review A</i> , 2010, 82, .	1.0	50
40	Fuldeâ€™Ferrell pairing instability in spinâ€™orbit coupled Fermi gas. <i>New Journal of Physics</i> , 2013, 15, 075014.	1.2	50
41	Finite-momentum dimer bound state in a spin-orbit-coupled Fermi gas. <i>Physical Review A</i> , 2013, 87, .	1.0	50
42	Radio-frequency spectroscopy of a strongly interacting spin-orbit-coupled Fermi gas. <i>Physical Review A</i> , 2013, 87, .	1.0	50
43	Universal Impurity-Induced Bound State in Topological Superfluids. <i>Physical Review Letters</i> , 2013, 110, 020401.	2.9	48
44	Dynamically Manipulating Topological Physics and Edge Modes in a Single Degenerate Optical Cavity. <i>Physical Review Letters</i> , 2017, 118, 083603.	2.9	48
45	Angular spin-orbit coupling in cold atoms. <i>Physical Review A</i> , 2015, 91, .	1.0	47
46	Macroscopic Spin Tunneling and Quantum Critical Behavior of a Condensate in a Double-Well Potential. <i>Physical Review Letters</i> , 2002, 89, 090401.	2.9	46
47	Manipulating spinor condensates with magnetic fields: Stochastization, metastability, and dynamical spin localization. <i>Physical Review A</i> , 2000, 61, .	1.0	45
48	Cavity-Mediated Strong Matter Wave Bistability in a Spin-1 Condensate. <i>Physical Review Letters</i> , 2009, 103, 160403.	2.9	45
49	Single impurity in ultracold Fermi superfluids. <i>Physical Review A</i> , 2011, 83, .	1.0	40
50	Adiabatic theorem for a condensate system in an atom-molecule dark state. <i>Physical Review A</i> , 2007, 75, .	1.0	37
51	Dynamical phases in quenched spinâ€™orbit-coupled degenerate Fermi gas. <i>Nature Communications</i> , 2015, 6, 6103.	5.8	36
52	Phonon Spectrum and Dynamical Stability of a Dilute Quantum Degenerate Bose-Fermi Mixture. <i>Physical Review Letters</i> , 2002, 88, 070408.	2.9	35
53	Magnetism in a lattice of spinor Bose-Einstein condensates. <i>Physical Review A</i> , 2002, 66, .	1.0	35
54	Spin-orbit angular momentum coupling in a spin-1 Bose-Einstein condensate. <i>Physical Review A</i> , 2016, 93, .	1.0	35

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55	Bose-Einstein condensates on a ring with periodic scattering length: Spontaneous symmetry breaking and entanglement. <i>Physical Review A</i> , 2008, 77, .	1.0	34
56	Multistability in an optomechanical system with a two-component Bose-Einstein condensate. <i>Physical Review A</i> , 2011, 83, .	1.0	34
57	Expansion of 1D Polarized Superfluids: The Fulde-Ferrell-Larkin-Ovchinnikov State Reveals Itself. <i>Physical Review Letters</i> , 2012, 108, 225302.	2.9	34
58	Hartree-Fock-Bogoliubov theory of dipolar Fermi gases. <i>Physical Review A</i> , 2010, 81, .	1.0	31
59	Spin dynamics and domain formation of a spinor Bose-Einstein condensate in an optical cavity. <i>Physical Review A</i> , 2010, 81, .	1.0	30
60	Instabilities and self-oscillations in atomic four-wave mixing. <i>Physical Review A</i> , 2001, 63, .	1.0	29
61	Quantum Phases in a Quantum Rabi Triangle. <i>Physical Review Letters</i> , 2021, 127, 063602.	2.9	29
62	Properties of a coupled two-species atom-heteronuclear-molecule condensate. <i>Physical Review A</i> , 2007, 75, .	1.0	27
63	Dissociation dynamics of a Bose-Einstein condensate of molecules. <i>Physical Review A</i> , 2005, 72, .	1.0	26
64	Bose-Einstein condensates in a ring-shaped trap with a nonlinear double-well potential. <i>Physical Review A</i> , 2012, 85, .	1.0	25
65	Deep learning-enhanced variational Monte Carlo method for quantum many-body physics. <i>Physical Review Research</i> , 2020, 2, .	1.3	25
66	Phase separation in a two-species atomic Bose-Einstein condensate with an interspecies Feshbach resonance. <i>Physical Review A</i> , 2008, 78, .	1.0	24
67	Quantum phase diffusion of a two-component dilute Bose-Einstein condensate. <i>Physical Review A</i> , 1998, 58, 531-535.	1.0	23
68	Coherent acceleration of Bose-Einstein condensates. <i>Physical Review A</i> , 2001, 64, .	1.0	23
69	Concomitant modulated superfluidity in polarized Fermi gases. <i>Physical Review A</i> , 2011, 83, .	1.0	23
70	Bose-Fermi mapping and a multibranch spin-chain model for strongly interacting quantum gases in one dimension: Dynamics and collective excitations. <i>Physical Review A</i> , 2016, 94, .	1.0	23
71	Effects of spin-orbit coupling on Jaynes-Cummings and Tavis-Cummings models. <i>Physical Review A</i> , 2016, 94, .	1.0	23
72	Eliminating the Mean-Field Shift in Two-Component Bose-Einstein Condensates. <i>Physical Review Letters</i> , 2000, 85, 5030-5033.	2.9	22

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73	Creation of topological states in spinor condensates. <i>Physical Review A</i> , 2001, 63, .	1.0	22
74	A Bogoliubov-de Gennes study of trapped spin-imbalanced unitary Fermi gases. <i>New Journal of Physics</i> , 2011, 13, 055014.	1.2	22
75	Emergent Universality in a Quantum Tricritical Dicke Model. <i>Physical Review Letters</i> , 2019, 122, 193201.	2.9	22
76	Emergence of topological and strongly correlated ground states in trapped Rashba spin-orbit-coupled Bose gases. <i>Physical Review A</i> , 2013, 87, .	1.0	21
77	Gapless topological Fulde-Ferrell superfluidity induced by an in-plane Zeeman field. <i>Physical Review A</i> , 2014, 90, .	1.0	20
78	Spin-charge separation in a one-dimensional Fermi gas with tunable interactions. <i>Science</i> , 2022, 376, 1305-1308.	6.0	20
79	Cavity-induced switching between localized and extended states in a noninteracting Bose-Einstein condensate. <i>Physical Review A</i> , 2011, 84, .	1.0	18
80	Photon-Induced Spin-Orbit Coupling in Ultracold Atoms inside Optical Cavity. <i>Atoms</i> , 2015, 3, 182-194.	0.7	18
81	Harmonically trapped atoms with spin-orbit coupling. <i>Journal of Physics B: Atomic, Molecular and Optical Physics</i> , 2016, 49, 145301.	0.6	18
82	Radio-frequency spectroscopy of weakly bound molecules in spin-orbit-coupled atomic Fermi gases. <i>Physical Review A</i> , 2012, 86, .	1.0	16
83	Complex quantum gases: spinor Bose-Einstein condensates of trapped atomic vapors. <i>Physica B: Condensed Matter</i> , 2000, 280, 27-31.	1.3	15
84	Collective excitation of a trapped Bose-Einstein condensate with spin-orbit coupling. <i>Physical Review A</i> , 2017, 95, .	1.0	15
85	Vortex patterns and the critical rotational frequency in rotating dipolar Bose-Einstein condensates. <i>Physical Review A</i> , 2018, 98, .	1.0	15
86	Cooling and trapping of three-level atoms in a bichromatic standing wave. <i>Optics Communications</i> , 1995, 118, 261-268.	1.0	14
87	Finite-temperature study of Bose-Fermi superfluid mixtures. <i>Physical Review A</i> , 2011, 83, .	1.0	14
88	Three-dimensional spin-orbit coupled Fermi gases: Fulde-Ferrell pairing, Majorana fermions, Weyl fermions, and gapless topological superfluidity. <i>Chinese Physics B</i> , 2015, 24, 050502.	0.7	13
89	Number-conserving interacting fermion models with exact topological superconducting ground states. <i>Physical Review B</i> , 2017, 96, .	1.1	13
90	Studies of two-species Bose-Einstein condensation. <i>Optics Express</i> , 1998, 2, 330.	1.7	12

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91	Theory of a collective atomic recoil laser. <i>Physical Review A</i> , 2001, 63, .	1.0	12
92	Coherent population trapping and dynamical instability in coupled atom-molecule condensates. <i>Physical Review A</i> , 2005, 72, .	1.0	12
93	Effective $p$ -wave interaction and topological superfluids in $s$ -wave quantum gases. <i>Physical Review A</i> , 2016, 93, .	1.0	12
94	Diffraction of a Superfluid Fermi Gas by an Atomic Grating. <i>Physical Review Letters</i> , 2002, 88, 110401.	2.9	11
95	Phase separation in a mixture of a Bose-Einstein condensate and a two-component Fermi gas as a probe of Fermi superfluidity. <i>Physical Review A</i> , 2008, 78, .	1.0	11
96	Creating vortices in dipolar spinor condensates via rapid adiabatic passage. <i>Physical Review A</i> , 2009, 79, .	1.0	11
97	Spin-orbit-coupled topological Fulde-Ferrell states of fermions in a harmonic trap. <i>Physical Review A</i> , 2014, 90, .	1.0	11
98	Synthetic Landau Levels and Spinor Vortex Matter on a Haldane Spherical Surface with a Magnetic Monopole. <i>Physical Review Letters</i> , 2018, 120, 130402.	2.9	11
99	Spin-exchange-induced exotic superfluids in a Bose-Fermi spinor mixture. <i>Physical Review A</i> , 2019, 100, .	1.0	11
100	Emergence and Disruption of Spin-Charge Separation in One-Dimensional Repulsive Fermions. <i>Physical Review Letters</i> , 2020, 125, 190401.	2.9	11
101	Feshbach-Resonance-Induced Atomic Filamentation and Quantum Pair Correlation in Atom-Laser-Beam Propagation. <i>Physical Review Letters</i> , 2003, 90, 140401.	2.9	10
102	Macroscopic Atom-Molecule Dark State and Its Collective Excitations in Fermionic Systems. <i>Physical Review Letters</i> , 2007, 99, 250404.	2.9	10
103	Atom-Molecule Dark State: The Exact Quantum Solution. <i>Physical Review Letters</i> , 2008, 101, 010401.	2.9	10
104	Detection of Fermi pairing via electromagnetically induced transparency. <i>Physical Review A</i> , 2009, 80, .	1.0	10
105	Manipulating the critical temperature for the superfluid phase transition in trapped atomic Fermi gases. <i>Physical Review A</i> , 2002, 65, .	1.0	9
106	Quantum phase transition of Bose-Einstein condensates on a nonlinear ring lattice. <i>Physical Review A</i> , 2011, 83, .	1.0	9
107	Efficient generation of many-body singlet states of spin-1 bosons in optical superlattices. <i>Physical Review A</i> , 2017, 95, .	1.0	9
108	Spin-Nematic Vortex States in Cold Atoms. <i>Physical Review Letters</i> , 2020, 125, 195303.	2.9	9

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109	Dynamical Fermionization in One-Dimensional Spinor Quantum Gases. <i>Physical Review Letters</i> , 2021, 127, 023002.	2.9	9
110	Properties of Spinor Bose Condensates. <i>Journal of Low Temperature Physics</i> , 2000, 119, 437-460.	0.6	8
111	Quasiparticle spectrum and dynamical stability of an atomic Bose-Einstein condensate coupled to a degenerate Fermi gas. <i>Physical Review A</i> , 2002, 65, .	1.0	8
112	Signatures of strong correlations in one-dimensional ultracold atomic Fermi gases. <i>Physical Review A</i> , 2008, 78, .	1.0	8
113	Dissipative transport of trapped Bose-Einstein condensates through disorder. <i>Physical Review A</i> , 2010, 82, .	1.0	8
114	Spin mixing in spinor Fermi gases. <i>Physical Review A</i> , 2013, 87, .	1.0	8
115	Thermodynamic properties of Rashba spin-orbit-coupled Fermi gas. <i>Physical Review A</i> , 2014, 90, .	1.0	8
116	One-body density matrix and momentum distribution of strongly interacting one-dimensional spinor quantum gases. <i>Physical Review A</i> , 2017, 95, .	1.0	8
117	Revivals, damping, and coherence times of atomic wave packets in optical lattices. <i>Physical Review A</i> , 1997, 56, 4331-4334.	1.0	7
118	Measurement backaction on the quantum spin-mixing dynamics of a spin-1 Bose-Einstein condensate. <i>Physical Review A</i> , 2011, 83, .	1.0	7
119	Spin-exchange-induced spin-orbit coupling in a superfluid mixture. <i>Physical Review A</i> , 2018, 97, .	1.0	7
120	Spin squeezing in a spin-orbit-coupled Bose-Einstein condensate. <i>Physical Review A</i> , 2020, 102, .	1.0	7
121	Numerical exploration of vortex matter in Bose-Einstein condensates. <i>Mathematics and Computers in Simulation</i> , 2009, 80, 131-138.	2.4	5
122	Two-component polariton condensate in an optical microcavity. <i>Physical Review A</i> , 2014, 89, .	1.0	5
123	Itinerant chiral ferromagnetism in a trapped Rashba spin-orbit-coupled Fermi gas. <i>Physical Review A</i> , 2016, 93, .	1.0	5
124	Building flat-band lattice models from Gram matrices. <i>Physical Review A</i> , 2020, 102, .	1.0	5
125	Multicriticality and quantum fluctuation in a generalized Dicke model. <i>Physical Review A</i> , 2021, 104, .	1.0	5
126	Semi-classical theory of laser cooling in two dimensions. <i>European Physical Journal D</i> , 1999, 7, 269.	0.6	4



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127	Two-fermion bound state in a Bose-Einstein condensate. Physical Review A, 2003, 67, .	1.0	4
128	Molecular vortex generated from an atom-molecule dark state. Physical Review A, 2006, 73, .	1.0	4
129	Synthesizing arbitrary lattice models using a single degenerate cavity. Physical Review A, 2019, 100, .	1.0	4
130	Bose-Einstein condensates in an atom-optomechanical system with effective global nonuniform interaction. Physical Review A, 2021, 103, .	1.0	4
131	Quantum Control of Motional States of Neutral Atoms: Exploiting the External Degrees of Freedom. Acta Physica Polonica A, 1998, 93, 11-29.	0.2	4
132	Realizing Luttinger liquids in trapped ultra-cold atomic Fermi gases using 2D optical lattices. Physica B: Condensed Matter, 2009, 404, 3320-3323.	1.3	3
133	Matter-wave bistability in coupled atom-molecule quantum gases. Physical Review A, 2010, 81, .	1.0	3
134	Artificial topological models based on a one-dimensional spin-dependent optical lattice. Physical Review A, 2017, 95, .	1.0	3
135	Two-component Bose-Hubbard model in an array of cavity polaritons. Physical Review A, 2015, 91, .	1.0	2
136	Unbound-to-bound transition of two-atom polaritons in an optical cavity. Physical Review A, 2018, 98, .	1.0	2
137	Non-Abelian geometric potentials and spin-orbit coupling for periodically driven systems. Physical Review A, 2019, 100, .	1.0	2
138	Atom Optics - From de Broglie Waves to Heisenberg Ferromagnets. Fortschritte Der Physik, 2002, 50, 664-669.	1.5	1
139	Multidimensional laser cooling of broad- and narrow-line <sup>1</sup> dipole transitions. Physical Review A, 2005, 72, .	1.0	1
140	Bose-Einstein condensate in Bloch bands with an off-diagonal periodic potential. Physical Review A, 2019, 100, .	1.0	1
141	Strongly interacting two-component coupled Bose gas in optical lattices. Physical Review A, 2021, 104, .	1.0	1
142	Coherent Association of Two-Component Atomic Condensate into Heteronuclear Molecular Condensate. , 2007, , .		0
143	Coherent association of two-component atomic condensate into heteronuclear molecular condensate. , 2007, , .		0
144	Concomitant Larkinâ€œOvchinnikov states in polarized atomic gases. Journal of Physics: Conference Series, 2011, 273, 012070.	0.3	0

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145	Field-induced topological pair-density wave states in a multilayer optical lattice. <i>Physical Review A</i> , 2018, 98, .	1.0	0
146	Creating Stable Oscillations from a Fermi Atom- Molecule Dark State. , 2007, , .		0
147	Phase Separation in a two-Species Atomic Bose-Einstein Condensate with an Interspecies Feshbach Resonance. , 2009, , .		0
148	Dynamical Spin-Orbit Coupling in Cold Atoms Induced by Cavity Field. , 2018, , 279-298.		0