

Han Pu

List of Publications by Year in descending order

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148
papers

6,357
citations

50170

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149
all docs

149
docs citations

149
times ranked

2402
citing authors

#	ARTICLE	IF	CITATIONS
1	Spin-charge separation in a one-dimensional Fermi gas with tunable interactions. <i>Science</i> , 2022, 376, 1305-1308.	6.0	20
2	Bose-Einstein condensates in an atom-optomechanical system with effective global nonuniform interaction. <i>Physical Review A</i> , 2021, 103, .	1.0	4
3	Dynamical Fermionization in One-Dimensional Spinor Quantum Gases. <i>Physical Review Letters</i> , 2021, 127, 023002.	2.9	9
4	Quantum Phases in a Quantum Rabi Triangle. <i>Physical Review Letters</i> , 2021, 127, 063602.	2.9	29
5	Multicriticality and quantum fluctuation in a generalized Dicke model. <i>Physical Review A</i> , 2021, 104, .	1.0	5
6	Strongly interacting two-component coupled Bose gas in optical lattices. <i>Physical Review A</i> , 2021, 104, .	1.0	1
7	Emergence and Disruption of Spin-Charge Separation in One-Dimensional Repulsive Fermions. <i>Physical Review Letters</i> , 2020, 125, 190401.	2.9	11
8	Spin squeezing in a spin-orbit-coupled Bose-Einstein condensate. <i>Physical Review A</i> , 2020, 102, .	1.0	7
9	Building flat-band lattice models from Gram matrices. <i>Physical Review A</i> , 2020, 102, .	1.0	5
10	Spin-Nematic Vortex States in Cold Atoms. <i>Physical Review Letters</i> , 2020, 125, 195303.	2.9	9
11	Deep learning-enhanced variational Monte Carlo method for quantum many-body physics. <i>Physical Review Research</i> , 2020, 2, .	1.3	25
12	Synthesizing arbitrary lattice models using a single degenerate cavity. <i>Physical Review A</i> , 2019, 100, .	1.0	4
13	Bose-Einstein condensate in Bloch bands with an off-diagonal periodic potential. <i>Physical Review A</i> , 2019, 100, .	1.0	1
14	Spin-exchange-induced exotic superfluids in a Bose-Fermi spinor mixture. <i>Physical Review A</i> , 2019, 100, .	1.0	11
15	Emergent Universality in a Quantum Tricritical Dicke Model. <i>Physical Review Letters</i> , 2019, 122, 193201.	2.9	22
16	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
17	Non-Abelian geometric potentials and spin-orbit coupling for periodically driven systems. <i>Physical Review A</i> , 2019, 100, .	1.0	2
18	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

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19	Spin-exchange-induced spin-orbit coupling in a superfluid mixture. <i>Physical Review A</i> , 2018, 97, .	1.0	7
20	Field-induced topological pair-density wave states in a multilayer optical lattice. <i>Physical Review A</i> , 2018, 98, .	1.0	0
21	Unbound-to-bound transition of two-atom polaritons in an optical cavity. <i>Physical Review A</i> , 2018, 98, .	1.0	2
22	Vortex patterns and the critical rotational frequency in rotating dipolar Bose-Einstein condensates. <i>Physical Review A</i> , 2018, 98, .	1.0	15
23	Dynamical Spin-Orbit Coupling in Cold Atoms Induced by Cavity Field. , 2018, , 279-298.		0
24	Dynamically Manipulating Topological Physics and Edge Modes in a Single Degenerate Optical Cavity. <i>Physical Review Letters</i> , 2017, 118, 083603.	2.9	48
25	Collective excitation of a trapped Bose-Einstein condensate with spin-orbit coupling. <i>Physical Review A</i> , 2017, 95, .	1.0	15
26	Artificial topological models based on a one-dimensional spin-dependent optical lattice. <i>Physical Review A</i> , 2017, 95, .	1.0	3
27	Number-conserving interacting fermion models with exact topological superconducting ground states. <i>Physical Review B</i> , 2017, 96, .	1.1	13
28	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
29	Efficient generation of many-body singlet states of spin-1 bosons in optical superlattices. <i>Physical Review A</i> , 2017, 95, .	1.0	9
30	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
31	Harmonically trapped atoms with spin-orbit coupling. <i>Journal of Physics B: Atomic, Molecular and Optical Physics</i> , 2016, 49, 145301.	0.6	18
32	Effects of spin-orbit coupling on Jaynes-Cummings and Tavis-Cummings models. <i>Physical Review A</i> , 2016, 94, .	1.0	23
33	Spin-orbit angular momentum coupling in a spin-1 Bose-Einstein condensate. <i>Physical Review A</i> , 2016, 93, .	1.0	35
34	Effective wave interaction and topological superfluids in wave quantum gases. <i>Physical Review A</i> , 2016, 93, .	1.0	12
35	Itinerant chiral ferromagnetism in a trapped Rashba spin-orbit-coupled Fermi gas. <i>Physical Review A</i> , 2016, 93, .	1.0	5
36	Stable Solitons in Three Dimensional Free Space without the Ground State: Self-Trapped Bose-Einstein Condensates with Spin-Orbit Coupling. <i>Physical Review Letters</i> , 2015, 115, 253902.	2.9	132

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37	Photon-Induced Spin-Orbit Coupling in Ultracold Atoms inside Optical Cavity. <i>Atoms</i> , 2015, 3, 182-194.	0.7	18
38	Dynamical phases in quenched spin-orbit-coupled degenerate Fermi gas. <i>Nature Communications</i> , 2015, 6, 6103.	5.8	36
39	Two-component Bose-Hubbard model in an array of cavity polaritons. <i>Physical Review A</i> , 2015, 91, .	1.0	2
40	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
41	Strongly interacting quantum gases in one-dimensional traps. <i>Physical Review A</i> , 2015, 91, .	1.0	65
42	Angular spin-orbit coupling in cold atoms. <i>Physical Review A</i> , 2015, 91, .	1.0	47
43	Thermodynamic properties of Rashba spin-orbit-coupled Fermi gas. <i>Physical Review A</i> , 2014, 90, .	1.0	8
44	Two-component polariton condensate in an optical microcavity. <i>Physical Review A</i> , 2014, 89, .	1.0	5
45	Cavity-assisted dynamical spin-orbit coupling in cold atoms. <i>Physical Review A</i> , 2014, 89, .	1.0	58
46	Spin-orbit-coupled topological Fulde-Ferrell states of fermions in a harmonic trap. <i>Physical Review A</i> , 2014, 90, .	1.0	11
47	Gapless topological Fulde-Ferrell superfluidity induced by an in-plane Zeeman field. <i>Physical Review A</i> , 2014, 90, .	1.0	20
48	FERMI GASES WITH SYNTHETIC SPIN-ORBIT COUPLING. <i>Annual Review of Cold Atoms and Molecules</i> , 2014, , 81-143.	2.8	60
49	Universal Impurity-Induced Bound State in Topological Superfluids. <i>Physical Review Letters</i> , 2013, 110, 020401.	2.9	48
50	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
51	Fulde-Ferrell pairing instability in spin-orbit coupled Fermi gas. <i>New Journal of Physics</i> , 2013, 15, 075014.	1.2	50
52	Anderson localization of cold atomic gases with effective spin-orbit interaction in a quasiperiodic optical lattice. <i>Physical Review A</i> , 2013, 87, .	1.0	53
53	Controlling Condensate Collapse and Expansion with an Optical Feshbach Resonance. <i>Physical Review Letters</i> , 2013, 110, 123201.	2.9	91
54	Finite-momentum dimer bound state in a spin-orbit-coupled Fermi gas. <i>Physical Review A</i> , 2013, 87, .	1.0	50

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55	Spin mixing in spinor Fermi gases. <i>Physical Review A</i> , 2013, 87, .	1.0	8
56	Radio-frequency spectroscopy of a strongly interacting spin-orbit-coupled Fermi gas. <i>Physical Review A</i> , 2013, 87, .	1.0	50
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	Spin-Orbit Coupled Weakly Interacting Bose-Einstein Condensates in Harmonic Traps. <i>Physical Review Letters</i> , 2012, 108, 010402.	2.9	273
59	Radio-frequency spectroscopy of weakly bound molecules in spin-orbit-coupled atomic Fermi gases. <i>Physical Review A</i> , 2012, 86, .	1.0	16
60	Half-quantum vortex state in a spin-orbit-coupled Bose-Einstein condensate. <i>Physical Review A</i> , 2012, 85, .	1.0	143
61	Bose-Einstein condensates in a ring-shaped trap with a nonlinear double-well potential. <i>Physical Review A</i> , 2012, 85, .	1.0	25
62	Probing Majorana fermions in spin-orbit-coupled atomic Fermi gases. <i>Physical Review A</i> , 2012, 85, .	1.0	78
63	Concomitant Larkin-Ovchinnikov states in polarized atomic gases. <i>Journal of Physics: Conference Series</i> , 2011, 273, 012070.	0.3	0
64	A Bogoliubov-de Gennes study of trapped spin-imbalanced unitary Fermi gases. <i>New Journal of Physics</i> , 2011, 13, 055014.	1.2	22
65	Rashba spin-orbit-coupled atomic Fermi gases. <i>Physical Review A</i> , 2011, 84, .	1.0	77
66	Cavity-induced switching between localized and extended states in a noninteracting Bose-Einstein condensate. <i>Physical Review A</i> , 2011, 84, .	1.0	18
67	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
68	Single impurity in ultracold Fermi superfluids. <i>Physical Review A</i> , 2011, 83, .	1.0	40
69	Quantum phase transition of Bose-Einstein condensates on a nonlinear ring lattice. <i>Physical Review A</i> , 2011, 83, .	1.0	9
70	Finite-temperature study of Bose-Fermi superfluid mixtures. <i>Physical Review A</i> , 2011, 83, .	1.0	14
71	Multistability in an optomechanical system with a two-component Bose-Einstein condensate. <i>Physical Review A</i> , 2011, 83, .	1.0	34
72	Concomitant modulated superfluidity in polarized Fermi gases. <i>Physical Review A</i> , 2011, 83, .	1.0	23

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73	Probing Anisotropic Superfluidity in Atomic Fermi Gases with Rashba Spin-Orbit Coupling. Physical Review Letters, 2011, 107, 195304.	2.9	194
74	Spatial density oscillations in trapped dipolar condensates. Physical Review A, 2010, 82, .	1.0	50
75	Spin dynamics and domain formation of a spinor Bose-Einstein condensate in an optical cavity. Physical Review A, 2010, 81, .	1.0	30
76	Dissipative transport of trapped Bose-Einstein condensates through disorder. Physical Review A, 2010, 82, .	1.0	8
77	Hartree-Fock-Bogoliubov theory of dipolar Fermi gases. Physical Review A, 2010, 81, .	1.0	31
78	Matter-wave bistability in coupled atom-molecule quantum gases. Physical Review A, 2010, 81, .	1.0	3
79	Symmetry breaking and self-trapping of a dipolar Bose-Einstein condensate in a double-well potential. Physical Review A, 2009, 79, .	1.0	78
80	Creating vortices in dipolar spinor condensates via rapid adiabatic passage. Physical Review A, 2009, 79, .	1.0	11
81	Formation and transformation of vector solitons in two-species Bose-Einstein condensates with a tunable interaction. Physical Review A, 2009, 79, .	1.0	74
82	Cavity-Mediated Strong Matter Wave Bistability in a Spin-1 Condensate. Physical Review Letters, 2009, 103, 160403.	2.9	45
83	Detection of Fermi pairing via electromagnetically induced transparency. Physical Review A, 2009, 80, .	1.0	10
84	Dynamical properties of dipolar Fermi gases. New Journal of Physics, 2009, 11, 055017.	1.2	63
85	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
86	Numerical exploration of vortex matter in Bose-Einstein condensates. Mathematics and Computers in Simulation, 2009, 80, 131-138.	2.4	5
87	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
88	Phase Separation in a two-Species Atomic Bose-Einstein Condensate with an Interspecies Feshbach Resonance. , 2009, , .		0
89	Bose-Einstein condensates on a ring with periodic scattering length: Spontaneous symmetry breaking and entanglement. Physical Review A, 2008, 77, .	1.0	34
90	Manifestations of the Roton Mode in Dipolar Bose-Einstein Condensates. Physical Review Letters, 2008, 100, 245302.	2.9	133

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91	Signatures of strong correlations in one-dimensional ultracold atomic Fermi gases. Physical Review A, 2008, 78, .	1.0	8
92	Phase-space deformation of a trapped dipolar Fermi gas. Physical Review A, 2008, 77, .	1.0	98
93	Phase separation in a mixture of a Bose-Einstein condensate and a two-component Fermi gas as a probe of Fermi superfluidity. Physical Review A, 2008, 78, .	1.0	11
94	Phase separation in a two-species atomic Bose-Einstein condensate with an interspecies Feshbach resonance. Physical Review A, 2008, 78, .	1.0	24
95	Atom-Molecule Dark State: The Exact Quantum Solution. Physical Review Letters, 2008, 101, 010401.	2.9	10
96	Coherent Association of Two-Component Atomic Condensate into Heteronuclear Molecular Condensate. , 2007, , .		0
97	Macroscopic Atom-Molecule Dark State and Its Collective Excitations in Fermionic Systems. Physical Review Letters, 2007, 99, 250404.	2.9	10
98	Adiabatic Condition for Nonlinear Systems. Physical Review Letters, 2007, 98, 050406.	2.9	93
99	Adiabatic theorem for a condensate system in an atom-molecule dark state. Physical Review A, 2007, 75, .	1.0	37
100	Properties of a coupled two-species atom-heteronuclear-molecule condensate. Physical Review A, 2007, 75, .	1.0	27
101	Coherent association of two-component atomic condensate into heteronuclear molecular condensate. , 2007, , .		0
102	Creating Stable Oscillations from a Fermi Atom- Molecule Dark State. , 2007, , .		0
103	Spontaneous Spin Textures in Dipolar Spinor Condensates. Physical Review Letters, 2006, 97, 020401.	2.9	100
104	Vortex structures in dipolar condensates. Physical Review A, 2006, 73, .	1.0	92
105	Molecular vortex generated from an atom-molecule dark state. Physical Review A, 2006, 73, .	1.0	4
106	Magnetization, squeezing, and entanglement in dipolar spin-1 condensates. Physical Review A, 2006, 73, .	1.0	57
107	Coherent population trapping and dynamical instability in coupled atom-molecule condensates. Physical Review A, 2005, 72, .	1.0	12
108	Structural Phase Transitions of Vortex Matter in an Optical Lattice. Physical Review Letters, 2005, 94, 190401.	2.9	84

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109	Dissociation dynamics of a Bose-Einstein condensate of molecules. <i>Physical Review A</i> , 2005, 72, .	1.0	26
110	Multidimensional laser cooling of broad- and narrow-line σ^1 dipole transitions. <i>Physical Review A</i> , 2005, 72, .	1.0	1
111	Quantum Phases of Dipolar Spinor Condensates. <i>Physical Review Letters</i> , 2004, 93, 040403.	2.9	92
112	Creating a Stable Molecular Condensate Using a Generalized Raman Adiabatic Passage Scheme. <i>Physical Review Letters</i> , 2004, 93, 250403.	2.9	95
113	Fundamental limit for integrated atom optics with Bose-Einstein condensates. <i>Physical Review A</i> , 2003, 68, .	1.0	54
114	Wave Mixing of Optical Pulses and Bose-Einstein Condensates. <i>Physical Review Letters</i> , 2003, 91, 150407.	2.9	57
115	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
116	Effective-mass analysis of Bose-Einstein condensates in optical lattices: Stabilization and levitation. <i>Physical Review A</i> , 2003, 67, .	1.0	52
117	Two-fermion bound state in a Bose-Einstein condensate. <i>Physical Review A</i> , 2003, 67, .	1.0	4
118	Spin Waves in a Bose-Einstein Condensed Atomic Spin Chain. <i>Physical Review Letters</i> , 2002, 88, 060401.	2.9	63
119	Phonon Spectrum and Dynamical Stability of a Dilute Quantum Degenerate Bose-Fermi Mixture. <i>Physical Review Letters</i> , 2002, 88, 070408.	2.9	35
120	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
121	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
122	Manipulating the critical temperature for the superfluid phase transition in trapped atomic Fermi gases. <i>Physical Review A</i> , 2002, 65, .	1.0	9
123	Diffraction of a Superfluid Fermi Gas by an Atomic Grating. <i>Physical Review Letters</i> , 2002, 88, 110401.	2.9	11
124	Magnetism in a lattice of spinor Bose-Einstein condensates. <i>Physical Review A</i> , 2002, 66, .	1.0	35
125	Atom Optics - From de Broglie Waves to Heisenberg Ferromagnets. <i>Fortschritte Der Physik</i> , 2002, 50, 664-669.	1.5	1
126	Ferromagnetism in a Lattice of Bose-Einstein Condensates. <i>Physical Review Letters</i> , 2001, 87, 140405.	2.9	90

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127	Generation of arbitrary Dicke states in spinor Bose-Einstein condensates. Optics Communications, 2001, 188, 149-154.	1.0	65
128	Coherent acceleration of Bose-Einstein condensates. Physical Review A, 2001, 64, .	1.0	23
129	Theory of a collective atomic recoil laser. Physical Review A, 2001, 63, .	1.0	12
130	Instabilities and self-oscillations in atomic four-wave mixing. Physical Review A, 2001, 63, .	1.0	29
131	Creation of topological states in spinor condensates. Physical Review A, 2001, 63, .	1.0	22
132	Complex quantum gases: spinor Bose-Einstein condensates of trapped atomic vapors. Physica B: Condensed Matter, 2000, 280, 27-31.	1.3	15
133	Properties of Spinor Bose Condensates. Journal of Low Temperature Physics, 2000, 119, 437-460.	0.6	8
134	Eliminating the Mean-Field Shift in Two-Component Bose-Einstein Condensates. Physical Review Letters, 2000, 85, 5030-5033.	2.9	22
135	Creating Macroscopic Atomic Einstein-Podolsky-Rosen States from Bose-Einstein Condensates. Physical Review Letters, 2000, 85, 3987-3990.	2.9	185
136	Manipulating spinor condensates with magnetic fields: Stochastization, metastability, and dynamical spin localization. Physical Review A, 2000, 61, .	1.0	45
137	Coherent disintegration and stability of vortices in trapped Bose condensates. Physical Review A, 1999, 59, 1533-1537.	1.0	137
138	Spin-mixing dynamics of a spinor Bose-Einstein condensate. Physical Review A, 1999, 60, 1463-1470.	1.0	207
139	Semi-classical theory of laser cooling in two dimensions. European Physical Journal D, 1999, 7, 269.	0.6	4
140	Studies of two-species Bose-Einstein condensation. Optics Express, 1998, 2, 330.	1.7	12
141	Quantum phase diffusion of a two-component dilute Bose-Einstein condensate. Physical Review A, 1998, 58, 531-535.	1.0	23
142	Properties of Two-Species Bose Condensates. Physical Review Letters, 1998, 80, 1130-1133.	2.9	359
143	Quantum Spins Mixing in Spinor Bose-Einstein Condensates. Physical Review Letters, 1998, 81, 5257-5261.	2.9	566
144	Collective Excitations, Metastability, and Nonlinear Response of a Trapped Two-Species Bose-Einstein Condensate. Physical Review Letters, 1998, 80, 1134-1137.	2.9	186

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145	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
146	Revivals, damping, and coherence times of atomic wave packets in optical lattices. Physical Review A, 1997, 56, 4331-4334.	1.0	7
147	“Stability Signature” in Two-Species Dilute Bose-Einstein Condensates. Physical Review Letters, 1997, 79, 3105-3108.	2.9	106
148	Cooling and trapping of three-level atoms in a bichromatic standing wave. Optics Communications, 1995, 118, 261-268.	1.0	14