List of Publications by Year in descending order

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XIA-ILL III

#	Article	IF	CITATIONS
1	A one-dimensional liquid of fermions with tunable spin. Nature Physics, 2014, 10, 198-201.	16.7	323
2	Spin-Orbit Coupled Weakly Interacting Bose-Einstein Condensates in Harmonic Traps. Physical Review Letters, 2012, 108, 010402.	7.8	273
3	Phase Diagram of a Strongly Interacting Polarized Fermi Gas in One Dimension. Physical Review Letters, 2007, 98, 070403.	7.8	205
4	Probing Anisotropic Superfluidity in Atomic Fermi Gases with Rashba Spin-Orbit Coupling. Physical Review Letters, 2011, 107, 195304.	7.8	194
5	Equation of state of a superfluid Fermi gas in the BCS-BEC crossover. Europhysics Letters, 2006, 74, 574-580.	2.0	165
6	Universal Behavior of Pair Correlations in a Strongly Interacting Fermi Gas. Physical Review Letters, 2010, 105, 070402.	7.8	158
7	Virial Expansion for a Strongly Correlated Fermi Gas. Physical Review Letters, 2009, 102, 160401.	7.8	144
8	Half-quantum vortex state in a spin-orbit-coupled Bose-Einstein condensate. Physical Review A, 2012, 85, .	2.5	143
9	Collective Modes and Ballistic Expansion of a Fermi Gas in the BCS-BEC Crossover. Physical Review Letters, 2004, 93, 190403.	7.8	130
10	Universal thermodynamics of strongly interacting Fermi gases. Nature Physics, 2007, 3, 469-472.	16.7	125
11	Mean-field phase diagrams of imbalanced Fermi gases near a Feshbach resonance. Physical Review A, 2006, 73, .	2.5	111
12	Fulde-Ferrell-Larkin-Ovchinnikov states in one-dimensional spin-polarized ultracold atomic Fermi gases. Physical Review A, 2007, 76, .	2.5	105
13	Virial expansion for a strongly correlated Fermi system and its application to ultracold atomic Fermi gases. Physics Reports, 2013, 524, 37-83.	25.6	98
14	Three attractively interacting fermions in a harmonic trap: Exact solution, ferromagnetism, and high-temperature thermodynamics. Physical Review A, 2010, 82, .	2.5	82
15	Probing Majorana fermions in spin-orbit-coupled atomic Fermi gases. Physical Review A, 2012, 85, .	2.5	78
16	Rashba spin-orbit-coupled atomic Fermi gases. Physical Review A, 2011, 84, .	2.5	77
17	Topological superfluid in one-dimensional spin-orbit-coupled atomic Fermi gases. Physical Review A, 2012, 85, .	2.5	76
18	Pseudogap Pairing in Ultracold Fermi Atoms. Physical Review Letters, 2010, 104, 240407.	7.8	74

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19	Quantum fluctuations in the BCS-BEC crossover of two-dimensional Fermi gases. Physical Review A, 2015, 92, .	2.5	73
20	Exact few-body results for strongly correlated quantum gases in two dimensions. Physical Review B, 2010, 82, .	3.2	68
21	Phase diagram of a non-Abelian Aubry-André-Harper model with <mml:math xmlns:mml="http://www.w3.org/1998/Math/MathML"><mml:mi>p</mml:mi>-wave superfluidity. Physical Review B, 2016, 93, .</mml:math 	3.2	67
22	BCS-BEC crossover in an asymmetric two-component Fermi gas. Europhysics Letters, 2006, 75, 364-370.	2.0	62
23	Finite-temperature phase diagram of a spin-polarized ultracold Fermi gas in a highly elongated harmonic trap. Physical Review A, 2008, 78, .	2.5	61
24	FERMI GASES WITH SYNTHETIC SPIN–ORBIT COUPLING. Annual Review of Cold Atoms and Molecules, 2014, , 81-143.	2.8	60
25	Universal contact of strongly interacting fermions at finite temperatures. New Journal of Physics, 2011, 13, 035007.	2.9	59
26	Universal thermodynamics of a strongly interacting Fermi gas: theory versus experiment. New Journal of Physics, 2010, 12, 063038.	2.9	57
27	Temperature of a trapped unitary Fermi gas at finite entropy. Physical Review A, 2006, 73, .	2.5	53
28	Signature of Mott-Insulator Transition with Ultracold Fermions in a One-Dimensional Optical Lattice. Physical Review Letters, 2005, 94, 136406.	7.8	51
29	Self-consistent theory of atomic Fermi gases with a Feshbach resonance at the superfluid transition. Physical Review A, 2005, 72, .	2.5	50
30	Mean-field thermodynamics of a spin-polarized spherically trapped Fermi gas at unitarity. Physical Review A, 2007, 75, .	2.5	50
31	Comparative study of strong-coupling theories of a trapped Fermi gas at unitarity. Physical Review A, 2008, 77, .	2.5	50
32	Radio-frequency spectroscopy of a strongly interacting spin-orbit-coupled Fermi gas. Physical Review A, 2013, 87, .	2.5	50
33	Topological Fulde-Ferrell superfluid in spin-orbit-coupled atomic Fermi gases. Physical Review A, 2013, 88, .	2.5	49
34	Universal Impurity-Induced Bound State in Topological Superfluids. Physical Review Letters, 2013, 110, 020401.	7.8	48
35	First and second sound in a strongly interacting Fermi gas. Physical Review A, 2009, 80, .	2.5	46
36	Collisionless and hydrodynamic excitations of trapped boson-fermion mixtures. Physical Review A, 2003, 67, .	2.5	45

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37	Gapless Topological Fulde-Ferrell Superfluidity in Spin-Orbit Coupled Fermi Gases. Physical Review Letters, 2014, 113, 115302.	7.8	43
38	Quantum Dynamical Approach of Wavefunction Collapse in Measurement Process and Its Application to Quantum Zeno Effect. , 1995, 43, 585-612.		42
39	Attractive Fermi polarons at nonzero temperatures with a finite impurity concentration. Physical Review A, 2018, 98, .	2.5	41
40	Consistent Theory of Self-Bound Quantum Droplets with Bosonic Pairing. Physical Review Letters, 2020, 125, 195302.	7.8	39
41	Confinement-induced resonances in anharmonic waveguides. Physical Review A, 2011, 84, .	2.5	36
42	Inhomogeneous Fulde-Ferrell superfluidity in spin-orbit-coupled atomic Fermi gases. Physical Review A, 2013, 87, .	2.5	36
43	Strongly correlated Fermi superfluid near an orbital Feshbach resonance: Stability, equation of state, and Leggett mode. Physical Review A, 2016, 94, .	2.5	33
44	Confinement-induced resonance in quasi-one-dimensional systems under transversely anisotropic confinement. Physical Review A, 2010, 82, .	2.5	32
45	Second sound and the density response function in uniform superfluid atomic gases. New Journal of Physics, 2010, 12, 043040.	2.9	31
46	Multicomponent strongly attractive Fermi gas: A color superconductor in a one-dimensional harmonic trap. Physical Review A, 2008, 77, .	2.5	30
47	Static structure factor of a strongly correlated Fermi gas at large momenta. Europhysics Letters, 2010, 91, 20005.	2.0	30
48	Microscopic pairing theory of a binary Bose mixture with interspecies attractions: Bosonic BEC-BCS crossover and ultradilute low-dimensional quantum droplets. Physical Review A, 2020, 102, .	2.5	30
49	Large-momentum distribution of a polarized Fermi gas and <mml:math xmlns:mml="http://www.w3.org/1998/Math/MathML"><mml:mi>p</mml:mi> -wave contacts. Physical Review A, 2016, 94, .</mml:math 	2.5	28
50	Reduced Quantum Anomaly in a Quasi-Two-Dimensional Fermi Superfluid: Significance of the Confinement-Induced Effective Range of Interactions. Physical Review Letters, 2019, 122, 070401.	7.8	28
51	Critical temperature of a Rashba spin-orbit-coupled Bose gas in a harmonic trap. Physical Review A, 2012, 85, .	2.5	27
52	Criteria for two-dimensional kinematics in an interacting Fermi gas. Physical Review A, 2016, 93, .	2.5	27
53	Collective excitations of a spherical ultradilute quantum droplet. Physical Review A, 2020, 102, .	2.5	27
54	Finite-temperature effects on the collapse of trapped Bose-Fermi mixtures. Physical Review A, 2003, 68, .	2.5	26

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55	Comparison of strong-coupling theories for a two-dimensional Fermi gas. Physical Review A, 2015, 92, .	2.5	26
56	Superfluid density and critical velocity near the Berezinskii-Kosterlitz-Thouless transition in a two-dimensional strongly interacting Fermi gas. Physical Review A, 2017, 96, .	2.5	26
57	Variational theory of two-fluid hydrodynamic modes at unitarity. Physical Review A, 2008, 77, .	2.5	25
58	Virial expansion for a strongly correlated Fermi gas with imbalanced spin populations. Physical Review A, 2010, 82, .	2.5	24
59	Collective oscillations of a confined Bose gas at finite temperature in the random-phase approximation. Physical Review A, 2004, 69, .	2.5	23
60	Quantum depletion and superfluid density of a supersolid in Raman spin-orbit-coupled Bose gases. Physical Review A, 2018, 98, .	2.5	23
61	Visualization of Vortex Bound States in Polarized Fermi Gases at Unitarity. Physical Review Letters, 2007, 98, 060406.	7.8	22
62	Soliton-induced Majorana fermions in a one-dimensional atomic topological superfluid. Physical Review A, 2015, 91, .	2.5	22
63	Breakdown of the Fermi polaron description near Fermi degeneracy at unitarity. Annals of Physics, 2019, 407, 29-45.	2.8	22
64	Anderson localization transition in a robust PT -symmetric phase of a generalized Aubry-André model. Physical Review A, 2021, 103, .	2.5	22
65	Universal dynamic structure factor of a strongly correlated Fermi gas. Physical Review A, 2012, 85, .	2.5	21
66	Fragmented Condensate Ground State of Trapped Weakly Interacting Bosons in Two Dimensions. Physical Review Letters, 2001, 87, 030404.	7.8	20
67	Expansion of a quantum degenerate boson-fermion mixture. Physical Review A, 2003, 67, .	2.5	20
68	Collective modes of a one-dimensional trapped atomic Bose gas at finite temperatures. Physical Review A, 2014, 90, .	2.5	20
69	Gapless topological Fulde-Ferrell superfluidity induced by an in-plane Zeeman field. Physical Review A, 2014, 90, .	2.5	20
70	Stoner ferromagnetism of a strongly interacting Fermi gas in the quasirepulsive regime. Physical Review A, 2016, 93, .	2.5	20
71	Thermodynamics of a trapped Bose-Fermi mixture. Physical Review A, 2003, 68, .	2.5	19
72	Dynamic response of strongly correlated Fermi gases in the quantum virial expansion. Physical Review A, 2010, 81, .	2.5	19

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73	xmlns:mml="http://www.w3.org/1998/Math/MathML" display="inline"> <mml:mrow><mml:mi>s</mml:mi></mml:mrow> -wave and <mml:math xmlns:mml="http://www.w3.org/1998/Math/MathML" display="inline"><mml:mrow><mml:mi>p</mml:mi></mml:mrow>-wave Fermi gases in a</mml:math 	2.5	19
74	harmonic trap. Physical Review A, 2011, 83, . Impurity probe of topological superfluids in one-dimensional spin-orbit-coupled atomic Fermi gases. Physical Review A, 2013, 87, .	2.5	19
75	Many-body localization in Ising models with random long-range interactions. Physical Review A, 2016, 94, .	2.5	19
76	BCS-BEC crossover at finite temperature in spin-orbit-coupled Fermi gases. Physical Review A, 2013, 87, .	2.5	18
77	Manipulating Majorana fermions in one-dimensional spin-orbit-coupled atomic Fermi gases. Physical Review A, 2012, 86, .	2.5	17
78	Radio-frequency spectroscopy of weakly bound molecules in spin-orbit-coupled atomic Fermi gases. Physical Review A, 2012, 86, .	2.5	16
79	Realizing Fulde-Ferrell Superfluids via a Dark-State Control of Feshbach Resonances. Physical Review Letters, 2018, 120, 045302.	7.8	16
80	Microscopic derivation of the extended Gross-Pitaevskii equation for quantum droplets in binary Bose mixtures. Physical Review A, 2020, 102, .	2.5	16
81	Momentum-resolved radio-frequency spectroscopy of a spin-orbit-coupled atomic Fermi gas near a Feshbach resonance in harmonic traps. Physical Review A, 2012, 86, .	2.5	15
82	Quantum fluctuations in a strongly interacting Bardeen-Cooper-Schrieffer polariton condensate at thermal equilibrium. Physical Review A, 2020, 101, .	2.5	15
83	Thermal destabilization of self-bound ultradilute quantum droplets. New Journal of Physics, 2020, 22, 103044.	2.9	15
84	Crossover polarons in a strongly interacting Fermi superfluid. Physical Review A, 2022, 105, .	2.5	15
85	Heavy polarons in ultracold atomic Fermi superfluids at the BEC-BCS crossover: Formalism and applications. Physical Review A, 2022, 105, .	2.5	15
86	Fulde–Ferrell superfluidity in ultracold Fermi gases with Rashba spin–orbit coupling. New Journal of Physics, 2013, 15, 093037.	2.9	14
87	Superfluid density and Berezinskii-Kosterlitz-Thouless transition of a spin-orbit-coupled Fulde-Ferrell superfluid. Physical Review A, 2015, 91, .	2.5	14
88	Low-momentum dynamic structure factor of a strongly interacting Fermi gas at finite temperature: A two-fluid hydrodynamic description. Physical Review A, 2018, 97, .	2.5	14
89	Low-momentum dynamic structure factor of a strongly interacting Fermi gas at finite temperature: The Goldstone phonon and its Landau damping. Physical Review A, 2018, 98, .	2.5	14
90	Many-body localization in XY spin chains with long-range interactions: An exact-diagonalization study. Physical Review A, 2019, 100, .	2.5	14

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91	Exact Quasiparticle Properties of a Heavy Polaron in BCS Fermi Superfluids. Physical Review Letters, 2022, 128, 175301.	7.8	14
92	Three-dimensional spin–orbit coupled Fermi gases: Fulde–Ferrell pairing, Majorana fermions, Weyl fermions, and gapless topological superfluidity. Chinese Physics B, 2015, 24, 050502.	1.4	13
93	Two-band description of resonant superfluidity in atomic Fermi gases. Physical Review A, 2015, 91, .	2.5	13
94	Fermi polaron in a one-dimensional quasiperiodic optical lattice: The simplest many-body localization challenge. Physical Review A, 2016, 93, .	2.5	13
95	Strongly interacting Sarma superfluid near orbital Feshbach resonances. Physical Review A, 2018, 97, .	2.5	13
96	Collective modes of a two-dimensional Fermi gas at finite temperature. Physical Review A, 2018, 97, .	2.5	13
97	Angular stripe phase in spin-orbital-angular-momentum coupled Bose condensates. Physical Review Research, 2020, 2, .	3.6	13
98	Finite-temperature excitations of a trapped Bose-Fermi mixture. Physical Review A, 2003, 68, .	2.5	12
99	Traveling Majorana Solitons in a Low-Dimensional Spin-Orbit-Coupled Fermi Superfluid. Physical Review Letters, 2016, 117, 225302.	7.8	12
100	Larkin-Ovchinnikov superfluidity in a two-dimensional imbalanced atomic Fermi gas. Physical Review A, 2017, 95, .	2.5	12
101	Generalization of Cini's model for quantum measurement and dynamical realization of wavefunction collapse. Physics Letters, Section A: General, Atomic and Solid State Physics, 1995, 198, 371-377.	2.1	11
102	Ground-state properties of a trapped few-boson system under rotation: Beyond the "lowest-Landau-level―approximation. Physical Review A, 2001, 64, .	2.5	11
103	Mean-field study of itinerant ferromagnetism in trapped ultracold Fermi gases: Beyond the local-density approximation. Physical Review A, 2010, 82, .	2.5	11
104	Spin-orbit-coupled topological Fulde-Ferrell states of fermions in a harmonic trap. Physical Review A, 2014, 90, .	2.5	11
105	Anderson localization of Cooper pairs and Majorana fermions in an ultracold atomic Fermi gas with synthetic spin-orbit coupling. Physical Review A, 2016, 93, .	2.5	11
106	Spin-exchange-induced exotic superfluids in a Bose-Fermi spinor mixture. Physical Review A, 2019, 100, .	2.5	11
107	Roton-Induced Bose Polaron in the Presence of Synthetic Spin-Orbit Coupling. Physical Review Letters, 2019, 123, 213401.	7.8	11
108	Fermi polarons at finite temperature: Spectral function and rf spectroscopy. Physical Review A, 2022, 105, .	2.5	11

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109	Validity of a single-channel model for a spin-orbit-coupled atomic Fermi gas near Feshbach resonances. Physical Review A, 2012, 86, .	2.5	10
110	Quantum and thermal fluctuations in a Raman spin-orbit-coupled Bose gas. Physical Review A, 2017, 96, .	2.5	10
111	Density fingerprint of giant vortices in Fermi gases near a Feshbach resonance. Physical Review A, 2007, 75, .	2.5	9
112	Non-universal thermodynamics of a strongly interacting inhomogeneous Fermi gas using the quantum virial expansion. Physics Letters, Section A: General, Atomic and Solid State Physics, 2011, 375, 2979-2984.	2.1	9
113	Comparison between theory and experiment for universal thermodynamics of a homogeneous, strongly correlated Fermi gas. Physical Review A, 2011, 83, .	2.5	9
114	First and second sound of a unitary Fermi gas in highly oblate harmonic traps. New Journal of Physics, 2014, 16, 083023.	2.9	9
115	Dimensional crossover in a strongly interacting ultracold atomic Fermi gas. Physical Review A, 2017, 96, .	2.5	9
116	Breathing-mode frequency of a strongly interacting Fermi gas across the two- to three-dimensional crossover. Physical Review A, 2018, 97, .	2.5	9
117	Few-Body Perspective of a Quantum Anomaly in Two-Dimensional Fermi Gases. Physical Review Letters, 2020, 124, 013401.	7.8	9
118	Josephson effect in an atomic Fulde-Ferrell-Larkin-Ovchinnikov superfluid. Physical Review A, 2011, 83, .	2.5	8
119	Ultradilute self-bound quantum droplets in Bose–Bose mixtures at finite temperature*. Chinese Physics B, 2021, 30, 010306.	1.4	8
120	Momentum-resolved radio-frequency spectroscopy of ultracold atomic Fermi gases in a spin-orbit-coupled lattice. Physical Review A, 2012, 86, .	2.5	7
121	Two-channel-model description of confinement-induced Feshbach molecules. Physical Review A, 2012, 86, .	2.5	7
122	Fulde-Ferrell pairing instability of a Rashba spin-orbit-coupled Fermi gas. Physical Review A, 2013, 88, .	2.5	7
123	Radio-frequency spectroscopy of a linear array of Bose-Einstein condensates in a magnetic lattice. Physical Review A, 2015, 91, .	2.5	7
124	Dynamic structure factor of a strongly correlated Fermi superfluid within a density functional theory approach. New Journal of Physics, 2016, 18, 113044.	2.9	7
125	Pseudogap regime of a strongly interacting two-dimensional Fermi gas with and without confinement-induced effective range of interactions. Physical Review A, 2020, 102, .	2.5	7
126	Effective theory for ultracold strongly interacting fermionic atoms in two dimensions. Physical Review A, 2020, 101, .	2.5	7

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127	Equation of state and contact of a strongly interacting Bose gas in the normal state. Physical Review A, 2015, 91, .	2.5	6
128	Quantum fluctuations of a resonantly interacting <mml:math xmlns:mml="http://www.w3.org/1998/Math/MathML"><mml:mi>p</mml:mi> -wave Fermi superfluid in two dimensions. Physical Review A, 2018, 98, .</mml:math 	2.5	6
129	Theory of strongly paired fermions with arbitrary short-range interactions. Physical Review A, 2020, 101, .	2.5	6
130	First and second sound in a two-dimensional harmonically trapped Bose gas across the Berezinskii–Kosterlitz–Thouless transition. Annals of Physics, 2014, 351, 531-539.	2.8	5
131	Beyond Gaussian pair fluctuation theory for strongly interacting Fermi gases. Physical Review A, 2016, 94, .	2.5	5
132	Resonantly interacting <mml:math xmlns:mml="http://www.w3.org/1998/Math/MathML"><mml:mi>p</mml:mi> -wave Fermi superfluid in two dimensions: Tan's contact and the breathing mode. Physical Review A, 2019, 100, .</mml:math 	2.5	5
133	Cluster Formation in Two-Component Fermi Gases. Physical Review Letters, 2019, 123, 073401.	7.8	5
134	Dynamic structure factors of a strongly interacting Fermi superfluid near an orbital Feshbach resonance across the phase transition from BCS to Sarma superfluid. Physical Review A, 2021, 103, .	2.5	5
135	Polaron in a non-Abelian Aubry-André-Harper model with p -wave superfluidity. Physical Review A, 2018, 98, .	2.5	4
136	Time evolution of quantum entanglement of an EPR pair in a localized environment. New Journal of Physics, 2018, 20, 053015.	2.9	4
137	Role of the confinement-induced effective range in the thermodynamics of a strongly correlated Fermi gas in two dimensions. Physical Review A, 2020, 101, .	2.5	4
138	First-order Bose-Einstein condensation with three-body interacting bosons. Physical Review A, 2021, 104, .	2.5	4
139	Polariton-polariton interaction beyond the Born approximation: A toy model study. Physical Review A, 2020, 102, .	2.5	4
140	Collective mode evidence of high-spin bosonization in a trapped one-dimensional atomic Fermi gas with tunable spin. Annals of Physics, 2014, 350, 84-94.	2.8	3
141	Probing an effective-range-induced super fermionic Tonks-Girardeau gas with ultracold atoms in one-dimensional harmonic traps. Physical Review A, 2016, 94, .	2.5	3
142	Ultra-cold fermions in optical lattices. Journal of Modern Optics, 2005, 52, 2261-2268.	1.3	2
143	Theory of strongly interacting Fermi gases. Journal of Modern Optics, 2009, 56, 2076-2081.	1.3	2
144	Ultracold collisions between spin-orbit-coupled dipoles: General formalism and universality. Physical Review A, 2018, 97, .	2.5	2

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145	Leggett mode in a two-component Fermi gas with dipolar interactions. Physical Review A, 2019, 99, .	2.5	2
146	Atom coherence propagation in a magnetic atomic waveguide. Journal of Optics B: Quantum and Semiclassical Optics, 2001, 3, 171-177.	1.4	1
147	Universal structure of a strongly interacting Fermi gas. Journal of Physics: Conference Series, 2011, 264, 012013.	0.4	1
148	First and second sound of a unitary Fermi gas in highly elongated harmonic traps. Physical Review A, 2014, 90, .	2.5	1
149	Ultra-cold hubbard fermions in optical lattices. , 2005, , .		0
150	Universal thermodynamics of strongly interacting Fermi gases. , 2007, , .		0
151	First-principles many-body theory for ultra-cold atoms. , 2010, , .		0
152	Probing the critical exponent of the superfluid fraction in a strongly interacting Fermi gas. Physical Review A, 2013, 88, .	2.5	0
153	Pseudopotentials for two-dimensional ultracold scattering in the presence of synthetic spin-orbit coupling. Physical Review A, 2019, 100, .	2.5	0
154	Universal Thermodynamic Behavior of Strongly Interacting Fermi Gases. , 2007, , .		0
155	Strongly Interacting Polarized Fermi Gases. , 2007, , .		0
156	UNIVERSALITY IN STRONGLY INTERACTING FERMI GASES. , 2009, , .		0
157	Photoexcitation measurement of Tan's contact for a strongly interacting Fermi gas. Physical Review A, 2021, 104, .	2.5	0