

# Georg Bruun

## List of Publications by Year in descending order

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113  
papers

4,697  
citations

76326

40  
h-index

106344

65  
g-index

114  
all docs

114  
docs citations

114  
times ranked

1709  
citing authors

#	ARTICLE	IF	CITATIONS
1	Mobile ion in a Fermi sea. <i>Physical Review A</i> , 2022, 105, .	2.5	4
2	Excitation Spectrum and Superfluid Gap of an Ultracold Fermi Gas. <i>Physical Review Letters</i> , 2022, 128, 100401.	7.8	26
3	Mobile impurity probing a two-dimensional superfluid phase transition. <i>Physical Review A</i> , 2022, 105, .	2.5	2
4	Mediated Interactions and Photon Bound States in an Exciton-Polariton Mixture. <i>Physical Review Letters</i> , 2021, 126, 017401.	7.8	11
5	Non-equilibrium quantum dynamics and formation of the Bose polaron. <i>Nature Physics</i> , 2021, 17, 731-735.	16.7	63
6	Attractive and Repulsive Exciton-Polariton Interactions Mediated by an Electron Gas. <i>Physical Review Letters</i> , 2021, 126, 127405.	7.8	15
7	Stability and breakdown of Fermi polarons in a strongly interacting Fermi-Bose mixture. <i>Physical Review A</i> , 2021, 103, .	2.5	25
8	Charged Polarons and Molecules in a Bose-Einstein Condensate. <i>Physical Review Letters</i> , 2021, 126, 243001.	7.8	14
9	Topological transport of mobile impurities. <i>Physical Review B</i> , 2021, 103, .	3.2	5
10	Mobile impurity in a Bose-Einstein condensate and the orthogonality catastrophe. <i>Physical Review A</i> , 2021, 103, .	2.5	28
11	Excitations of a Bose-Einstein condensate and the quantum geometry of a flat band. <i>Physical Review B</i> , 2021, 104, .	3.2	16
12	Polaritons in an Electron Gas – Quasiparticles and Landau Effective Interactions. <i>Atoms</i> , 2021, 9, 81.	1.6	5
13	Spatial structure of magnetic polarons in strongly interacting antiferromagnets. <i>Physical Review B</i> , 2021, 104, .	3.2	12
14	Quantum Geometry and Flat Band Bose-Einstein Condensation. <i>Physical Review Letters</i> , 2021, 127, 170404.	7.8	30
15	Nonlinear optical response of resonantly driven polaron-polaritons. <i>Physical Review B</i> , 2021, 104, .	3.2	6
16	Superfluid Flow of Polaron Polaritons above Landau’s Critical Velocity. <i>Physical Review Letters</i> , 2020, 125, 035301.	7.8	4
17	Observing the emergence of a quantum phase transition shell by shell. <i>Nature</i> , 2020, 587, 583-587.	27.8	38
18	High-Frequency Sound in a Unitary Fermi Gas. <i>Physical Review Letters</i> , 2020, 124, 150401.	7.8	14

#	ARTICLE	IF	CITATIONS
19	Polariton dynamics in strongly interacting quantum many-body systems. Physical Review Research, 2020, 2, .	3.6	6
20	Detecting chiral pairing and topological superfluidity using circular dichroism. Physical Review Research, 2020, 2, .	3.6	5
21	Critical slowdown of non-equilibrium polaron dynamics. New Journal of Physics, 2019, 21, 043014.	2.9	40
22	Strong interactions and biexcitons in a polariton mixture. Physical Review B, 2019, 100, .	3.2	14
23	New interactions seen in an ultracold gas. Nature, 2019, 568, 37-38.	27.8	3
24	Dropping an impurity into a Chern insulator: A polaron view on topological matter. Physical Review B, 2019, 99, .	3.2	20
25	Analyzing a Bose polaron across resonant interactions. Physical Review A, 2019, 99, .	2.5	68
26	Bose Polarons at Finite Temperature and Strong Coupling. Physical Review Letters, 2018, 120, 050405.	7.8	62
27	Higher first Chern numbers in one-dimensional Bose-Fermi mixtures. New Journal of Physics, 2018, 20, 025005.	2.9	3
28	Induced $\langle \text{mml:math xmlns:mml="http://www.w3.org/1998/Math/MathML" display="inline"> \langle \text{mml:mi} \rangle \langle \text{mml:mi} \rangle \langle \text{mml:math} \rangle$ -Wave Pairing in Bose-Fermi Mixtures. Physical Review Letters, 2018, 121, 253402.	7.8	35
29	Dilute Fluid Governed by Quantum Fluctuations. Physical Review Letters, 2018, 121, 173403.	7.8	46
30	Stabilizing Fulde-Ferrell-Larkin-Ovchinnikov superfluidity with long-range interactions in a mixed-dimensional Bose-Fermi system. Physical Review A, 2018, 98, .	2.5	3
31	Bipolarons in a Bose-Einstein Condensate. Physical Review Letters, 2018, 121, 013401.	7.8	100
32	Landau Effective Interaction between Quasiparticles in a Bose-Einstein Condensate. Physical Review X, 2018, 8, .	8.9	54
33	Mixed-dimensional Bose polaron. Physical Review A, 2017, 96, .	2.5	6
34	Time-reversal-invariant topological superfluids in Bose-Fermi mixtures. Physical Review A, 2017, 96, .	2.5	15
35	Long-range mediated interactions in a mixed-dimensional system. Physical Review A, 2017, 95, .	2.5	17
36	Goldstone mode and pair-breaking excitations in atomic Fermi superfluids. Nature Physics, 2017, 13, 943-946.	16.7	77

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37	Finite-temperature behavior of the Bose polaron. <i>Physical Review A</i> , 2017, 96, .	2.5	38
38	Mixed parity pairing in a dipolar gas. <i>Journal of Modern Optics</i> , 2016, 63, 1777-1782.	1.3	2
39	Topological Superfluid in a Fermi-Bose Mixture with a High Critical Temperature. <i>Physical Review Letters</i> , 2016, 117, 245302.	7.8	43
40	Topological superfluidity of lattice fermions inside a Bose-Einstein condensate. <i>Physical Review A</i> , 2016, 94, .	2.5	18
41	Liquid crystal phases of two-dimensional dipolar gases and Berezinskii-Kosterlitz-Thouless melting. <i>Scientific Reports</i> , 2016, 6, 19038.	3.3	16
42	Observation of Attractive and Repulsive Polarons in a Bose-Einstein Condensate. <i>Physical Review Letters</i> , 2016, 117, 055302.	7.8	325
43	Few-Body Precursor of the Higgs Mode in a Fermi Gas. <i>Physical Review Letters</i> , 2016, 116, 155302.	7.8	21
44	Using superlattice potentials to probe long-range magnetic correlations in optical lattices. <i>Physical Review A</i> , 2015, 92, .	2.5	1
45	Coexistence of density wave and superfluid order in a dipolar Fermi gas. <i>Physical Review B</i> , 2015, 91, .	3.2	13
46	Impurity in a Bose-Einstein Condensate and the Efimov Effect. <i>Physical Review Letters</i> , 2015, 115, 125302.	7.8	144
47	Decoherence of Impurities in a Fermi Sea of Ultracold Atoms. <i>Physical Review Letters</i> , 2015, 115, 135302.	7.8	93
48	Quasiparticle Properties of a Mobile Impurity in a Bose-Einstein Condensate. <i>Physical Review Letters</i> , 2015, 115, 160401.	7.8	132
49	Strong-coupling ansatz for the one-dimensional Fermi gas in a harmonic potential. <i>Science Advances</i> , 2015, 1, e1500197.	10.3	81
50	Quasiparticle scattering rate in a strongly polarized Fermi mixture. <i>Physical Review A</i> , 2015, 91, .	2.5	7
51	Induced interactions in a superfluid Bose-Fermi mixture. <i>Physical Review A</i> , 2015, 91, .	2.5	32
52	Anisotropic Relaxation Dynamics in a Dipolar Fermi Gas Driven Out of Equilibrium. <i>Physical Review Letters</i> , 2014, 113, 263201.	7.8	29
53	Quantum hexatic order in two-dimensional dipolar and charged fluids. <i>Physical Review B</i> , 2014, 89, .	3.2	17
54	Properties of the density-wave phase of a two-dimensional dipolar Fermi gas. <i>Physical Review B</i> , 2014, 90, .	3.2	15

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55	Long-lived Higgs mode in a two-dimensional confined Fermi system. <i>Physical Review A</i> , 2014, 90, .	2.5	19
56	Polarons, dressed molecules and itinerant ferromagnetism in ultracold Fermi gases. <i>Reports on Progress in Physics</i> , 2014, 77, 034401.	20.1	325
57	Quasiparticle Lifetime in Ultracold Fermionic Mixtures with Density and Mass Imbalance. <i>Physical Review Letters</i> , 2013, 111, 145301.	7.8	8
58	Itinerant Ferromagnetism in a Polarized Two-Component Fermi Gas. <i>Physical Review Letters</i> , 2013, 110, 230401.	7.8	43
59	Collective modes of a two-dimensional spin- $\frac{1}{2}$ Fermi gas in a harmonic trap. <i>Physical Review A</i> , 2013, 87, .	2.5	22
60	Self-bound many-body states of quasi-one-dimensional dipolar Fermi gases: Exploiting Bose-Fermi mappings for generalized contact interactions. <i>Physical Review A</i> , 2013, 88, .	2.5	8
61	Quantum Heisenberg Models with $X$ $Y$ $Z$ -Orbital Bosons. <i>Physical Review Letters</i> , 2013, 111, 205302.	7.8	55
62	Density wave instabilities of tilted fermionic dipoles in a multilayer geometry. <i>New Journal of Physics</i> , 2012, 14, 105006.	2.9	26
63	Dipolar fermions in a two-dimensional lattice at nonzero temperature. <i>Physical Review A</i> , 2012, 86, .	2.5	16
64	Harmonically trapped dipolar fermions in a two-dimensional square lattice. <i>Physical Review A</i> , 2012, 85, .	2.5	23
65	Shear viscosity and spin-diffusion coefficient of a two-dimensional Fermi gas. <i>Physical Review A</i> , 2012, 85, .	2.5	33
66	Metastability and coherence of repulsive polarons in a strongly interacting Fermi mixture. <i>Nature</i> , 2012, 485, 615-618.	27.8	372
67	Inducing spin-dependent tunneling to probe magnetic correlations in optical lattices. <i>Physical Review A</i> , 2012, 85, .	2.5	1
68	Repulsive polarons and itinerant ferromagnetism in strongly polarized Fermi gases. <i>European Physical Journal D</i> , 2011, 65, 83-89.	1.3	110
69	Density waves in layered systems with fermionic polarmolecules. <i>European Physical Journal D</i> , 2011, 65, 133-139.	1.3	32
70	Metastability in spin-polarized Fermi gases and quasiparticle decays. <i>New Journal of Physics</i> , 2011, 13, 055011.	2.9	4
71	Spin diffusion in Fermi gases. <i>New Journal of Physics</i> , 2011, 13, 035005.	2.9	39
72	Bosonic and Fermionic Dipoles on a Ring. <i>Physical Review Letters</i> , 2011, 107, 035301.	7.8	44

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73	Measuring spin correlations in optical lattices using superlattice potentials. Physical Review A, 2011, 84, .	2.5	5
74	Polarons and molecules in a two-dimensional Fermi gas. Physical Review A, 2011, 83, .	2.5	59
75	Spin Diffusion in Trapped Clouds of Cold Atoms with Resonant Interactions. Physical Review Letters, 2011, 107, 255302.	7.8	18
76	Clock shifts in a Fermi gas interacting with a minority component: A soluble model. Physical Review A, 2010, 81, .	2.5	3
77	Tunable Wigner States with Dipolar Atoms and Molecules. Physical Review Letters, 2010, 105, 255301.	7.8	40
78	Decay of Polarons and Molecules in a Strongly Polarized Fermi Gas. Physical Review Letters, 2010, 105, 020403.	7.8	52
79	Short-range correlations and entropy in ultracold-atom Fermi gases. Physical Review A, 2009, 80, .	2.5	47
80	Antiferromagnetic noise correlations in optical lattices. Physical Review A, 2009, 80, .	2.5	17
81	Probing Spatial Spin Correlations of Ultracold Gases by Quantum Noise Spectroscopy. Physical Review Letters, 2009, 102, 030401.	7.8	28
82	Feshbach Resonances and Medium Effects in Ultracold Atomic Gases. Few-Body Systems, 2009, 45, 227-232.	1.5	4
83	Collective oscillations of a Fermi gas in the unitarity limit: Temperature effects and the role of pair correlations. Physical Review A, 2008, 78, .	2.5	74
84	Spin polarons and molecules in strongly interacting atomic Fermi gases. Physical Review A, 2008, 78, .	2.5	29
85	Twin peaks in rf spectra of Fermi gases at unitarity. Physical Review A, 2008, 77, .	2.5	47
86	Quantum Phases of a Two-Dimensional Dipolar Fermi Gas. Physical Review Letters, 2008, 101, 245301.	7.8	123
87	Collisional Properties of a Polarized Fermi Gas with Resonant Interactions. Physical Review Letters, 2008, 100, 240406.	7.8	52
88	Magnetic and superfluid phases of confined fermions in two-dimensional optical lattices. Physical Review A, 2007, 76, .	2.5	25
89	Frequency and damping of the scissors mode of a Fermi gas. Physical Review A, 2007, 76, .	2.5	41
90	Improving comparability between microarray probe signals by thermodynamic intensity correction. Nucleic Acids Research, 2007, 35, e48.	14.5	19

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91	Shear viscosity and damping for a Fermi gas in the unitarity limit. <i>Physical Review A</i> , 2007, 75, .	2.5	81
92	Bragg spectroscopy of cold atomic Fermi gases. <i>Physical Review A</i> , 2006, 74, .	2.5	30
93	Multichannel scattering and Feshbach resonances: Effective theory, phenomenology, and many-body effects. <i>Physical Review A</i> , 2005, 71, .	2.5	45
94	Viscous relaxation and collective oscillations in a trapped Fermi gas near the unitarity limit. <i>Physical Review A</i> , 2005, 71, .	2.5	89
95	Viscosity and thermal relaxation for a resonantly interacting Fermi gas. <i>Physical Review A</i> , 2005, 72, .	2.5	71
96	Detection of BCS Pairing in Neutral Fermi Fluids via Stokes Scattering: The Hebel-Slichter Effect. <i>Physical Review Letters</i> , 2004, 93, 150403.	7.8	16
97	Effective Theory of Feshbach Resonances and Many-Body Properties of Fermi Gases. <i>Physical Review Letters</i> , 2004, 92, 140404.	7.8	62
98	Vortex line in a neutral finite-temperature superfluid Fermi gas. <i>Physical Review A</i> , 2004, 69, .	2.5	18
99	Pairing Fluctuations in Trapped Fermi Gases. <i>Physical Review Letters</i> , 2004, 93, 110406.	7.8	11
100	Universality of a two-component Fermi gas with a resonant interaction. <i>Physical Review A</i> , 2004, 70, .	2.5	42
101	Microscopic Structure of a Vortex Line in a Dilute Superfluid Fermi Gas. <i>Physical Review Letters</i> , 2003, 90, 210402.	7.8	49
102	Effects of the trapping potential on a superfluid atomic Fermi gas. <i>Physical Review A</i> , 2002, 66, .	2.5	12
103	Low-Energy Monopole Modes of a Trapped Atomic Fermi Gas. <i>Physical Review Letters</i> , 2002, 89, 263002.	7.8	17
104	Cooper pairing and single-particle properties of trapped Fermi gases. <i>Physical Review A</i> , 2002, 65, .	2.5	46
105	Laser probing of Cooper-paired trapped atoms. <i>Physical Review A</i> , 2001, 64, .	2.5	35
106	Vortex state in superfluid trapped Fermi gases at zero temperature. <i>Physical Review A</i> , 2001, 64, .	2.5	22
107	Collective modes of trapped Fermi gases in the normal phase. <i>Physical Review A</i> , 2001, 63, .	2.5	22
108	Low Energy Collective Modes of a Superfluid Trapped Atomic Fermi Gas. <i>Physical Review Letters</i> , 2001, 87, 270403.	7.8	66

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109	Detection of the BCS transition in a trapped Fermi gas. Journal of Physics B: Atomic, Molecular and Optical Physics, 2000, 33, 3953-3959.	1.5	19
110	Hydrodynamic Excitations of Trapped Fermi Gases. Physical Review Letters, 1999, 83, 5415-5418.	7.8	71
111	Interacting Fermi gas in a harmonic trap. Physical Review A, 1998, 58, 2427-2434.	2.5	69
112	Validity of the Gor'kov expansion near the upper critical field in type II superconductors. Journal of Physics Condensed Matter, 1997, 9, 2773-2779.	1.8	2
113	Ginzburg-Landau-Gor'kov theory of magnetic oscillations in a type-II two-dimensional superconductor. Physical Review B, 1997, 56, 809-825.	3.2	15