Franco Dalfovo

List of Publications by Year
in descending order

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		94381	37183
103	9,234	37	96
papers	citations	h-index	g-index

105	105	105	3833
all docs	docs citations	times ranked	citing authors

#	Article	IF	Citations
1	Measurement of the order parameter and its spatial fluctuations across Bose-Einstein condensation. Physical Review A, 2022, 105, .	1.0	2
2	Finite-temperature spin dynamics of a two-dimensional Bose-Bose atomic mixture. Physical Review Research, 2021, 3, .	1.3	7
3	Kibble-Zurek dynamics in a trapped ultracold Bose gas. Physical Review Research, 2020, 2, .	1.3	18
4	Quench dynamics of an ultracold two-dimensional Bose gas. Physical Review A, 2019, 100, .	1.0	15
5	Optical Visibility and Core Structure of Vortex Filaments in a Bosonic Superfluid. Journal of Experimental and Theoretical Physics, 2018, 127, 804-811.	0.2	4
6	Collisionless Sound in a Uniform Two-Dimensional Bose Gas. Physical Review Letters, 2018, 121, 145302.	2.9	35
7	Dynamical equilibration across a quenched phase transition in a trapped quantum gas. Communications Physics, 2018, 1, .	2.0	42
8	Observation of a spinning top in a Bose-Einstein condensate. Physical Review A, 2017, 96, .	1.0	9
9	Vortex Reconnections and Rebounds in Trapped Atomic Bose-Einstein Condensates. Physical Review X, 2017, 7, .	2.8	53
10	Multiple Period States of the Superfluid Fermi Gas in an Optical Lattice. Journal of Physics: Conference Series, 2016, 752, 012002.	0.3	0
11	Multiple period states of the superfluid Fermi gas in an optical lattice. New Journal of Physics, 2016, 18, 023011.	1.2	4
12	Darkâ€“bright solitons in a superfluid Boseâ€“Fermi mixture. New Journal of Physics, 2016, 18, 053014.	1.2	29
13	Creation and counting of defects in a temperature-quenched Bose-Einstein condensate. Physical Review A, 2016, 94, .	1.0	32
14	Dynamic structure factor of a strongly correlated Fermi superfluid within a density functional theory approach. New Journal of Physics, 2016, 18, 113044.	1.2	7
15	Dynamics and Interaction of Vortex Lines in an Elongated Bose-Einstein Condensate. Physical Review Letters, 2015, 115, 170402.	2.9	59
16	Solitonic vortices in Boseâ€“Einstein condensates. European Physical Journal: Special Topics, 2015, 224, 577-583.	1.2	17
17	Josephson Oscillations and Self-Trapping of Superfluid Fermions in a Double-Well Potential. Journal of Low Temperature Physics, 2014, 177, 240-256.	0.6	20
18	Observation of Solitonic Vortices in Bose-Einstein Condensates. Physical Review Letters, 2014, 113, 065302.	2.9	123

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19	Spontaneous creation of Kibbleâ€“Zurek solitons in a Boseâ€“Einstein condensate. Nature Physics, 2013, 9, 656-660.	6.5	197
20	Snake instability of dark solitons in fermionic superfluids. Physical Review A, 2013, 88, .	1.0	44
21	The decay and collisions of dark solitons in superfluid Fermi gases. New Journal of Physics, 2012, 14, 023044.	1.2	20
22	Rapid ramps across the BEC-BCS crossover: A route to measuring the superfluid gap. Physical Review A, 2012, 86, .	1.0	33
23	Subdiffusion of nonlinear waves in quasiperiodic potentials. New Journal of Physics, 2012, 14, 103036.	1.2	32
24	Dynamics of Dark Solitons in a Trapped Superfluid Fermi Gas. Physical Review Letters, 2011, 106, 185301.	2.9	79
25	Swallowtail Band Structure of the Superfluid Fermi Gas in an Optical Lattice. Physical Review Letters, 2011, 107, 270404.	2.9	21
26	Effects of periodic potentials on the critical velocity of superfluid Fermi gases in the BCS-BEC crossover. Physical Review A, 2011, 83, .	1.0	10
27	Localization in momentum space of ultracold atoms in incommensurate lattices. Physical Review A, 2011, 83, .	1.0	21
28	Observation of Subdiffusion in a Disordered Interacting System. Physical Review Letters, 2011, 106, 230403.	2.9	131
29	Critical velocity of superfluid flow through single-barrier and periodic potentials. Physical Review A, 2009, 80, .	1.0	47
30	Effects of interaction on the diffusion of atomic matter waves in one-dimensional quasiperiodic potentials. Physical Review A, 2009, 80, .	1.0	75
31	Solitons in two-dimensional Bose-Einstein condensates. Physical Review A, 2008, 77, .	1.0	34
32	Equation of state and effective mass of the unitary Fermi gas in a one-dimensional periodic potential. Physical Review A, 2008, 78, .	1.0	23
33	Dynamical Response of a Bose-Einstein Condensate to a Discontinuous Change in Internal State. , 2008, , 523-527.		0
34	Dark solitons in a superfluid Fermi gas. Physical Review A, 2007, 76, .	1.0	75
35	Stability and Excitations of Solitons in 2D Bose-Einstein Condensates. Journal of Low Temperature Physics, 2007, 148, 393-398.	0.6	5
36	Boseâ€“Einstein Condensates. , 2006, , 312-318.		1

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37	Detecting phonons and persistent currents in toroidal Bose-Einstein condensates by means of pattern formation. Physical Review A, 2006, 74, .	1.0	54
38	Parametric excitation of a Bose-Einstein condensate in a one-dimensional optical lattice. Physical Review A, 2005, 71, .	1.0	56
39	Stability diagram and growth rate of parametric resonances in Bose-Einstein condensates in one-dimensional optical lattices. Physical Review A, 2005, 72, .	1.0	54
40	Density pattern in supercritical flow of liquidHe4. Physical Review B, 2005, 71, .	1.1	22
41	Oscillations in the Expansion of SolidHe4into Vacuum. Physical Review Letters, 2005, 95, 095301.	2.9	8
42	Phonon evaporation in freely expanding Bose-Einstein condensates. Physical Review A, 2004, 69, .	1.0	18
43	Role of transverse excitations in the instability of Bose-Einstein condensates moving in optical lattices. Physical Review A, 2004, 70, .	1.0	61
44	High Sensitivity Phonon Spectroscopy of Bose-Einstein Condensates using Matter-Wave Interference. Physical Review Letters, 2004, 93, 220403.	2.9	18
45	High sensitivity phonon spectroscopy of Bose-Einstein condensates using matter-wave interference. , 2004, , .		0
46	Deep penetration of vacancies into a solid. Journal of Electron Spectroscopy and Related Phenomena, 2003, 129, 201-206.	0.8	6
47	Bragg Spectroscopy of the Multibranch Bogoliubov Spectrum of Elongated Bose-Einstein Condensates. Physical Review Letters, 2003, 90, 060404.	2.9	68
48	Bogoliubov spectrum and Bragg spectroscopy of elongated Bose-Einstein condensates. New Journal of Physics, 2003, 5, 54-54.	1.2	30
49	Pinning of Quantized Vortices in Mixed 3He-4He Droplets. Journal of Low Temperature Physics, 2002, 126, 281-286.	0.6	4
50	Experiments with two Colliding Bose-Einstein Condensates in an Elongated Magneto-Static Trap. , 2002, , 67-90.		0
51	Dynamics of two interacting Bose condensates in a magnetostatic trap. AIP Conference Proceedings, 2001, , .	0.3	0
52	Helium nanodroplets and trapped Boseâ€“Einstein condensates as prototypes of finite quantum fluids. Journal of Chemical Physics, 2001, 115, 10078.	1.2	57
53	Momentum transferred to a trapped Bose-Einstein condensate by stimulated light scattering. Physical Review A, 2001, 64, .	1.0	79
54	Quantized Vortices in MixedH3eâˆ’H4eDrops. Physical Review Letters, 2001, 87, 145301.	2.9	22

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55	Vortices in Doped 4He Clusters. Journal of Low Temperature Physics, 2000, 121, 423-428.	0.6	4
56	Pinning of Quantized Vortices in Helium Drops by Dopant Atoms and Molecules. Physical Review Letters, 2000, 85, 1028-1031.	2.9	47
57	How to Measure the Bogoliubov Quasiparticle Amplitudes in a Trapped Condensate. Physical Review Letters, 2000, 85, 4422-4425.	2.9	34
58	Dynamics of two colliding Bose-Einstein condensates in an elongated magnetostatic trap. Physical Review A, 2000, 62, .	1.0	36
59	Free expansion of Bose-Einstein condensates with quantized vortices. Physical Review A, 2000, 61, .	1.0	56
60	Shape deformations and angular-momentum transfer in trapped Bose-Einstein condensates. Physical Review A, 2000, 63, .	1.0	60
61	Superfluid Hydrodynamic Model for the Enhanced Moments of Inertia of Molecules in Liquid4He. Physical Review Letters, 1999, 83, 5058-5061.	2.9	115
62	Theory of Bose-Einstein condensation in trapped gases. Reviews of Modern Physics, 1999, 71, 463-512.	16.4	4,734
63	Scattering of Elementary Excitations at the Surface of Superfluid 4He. Journal of Low Temperature Physics, 1998, 110, 449-454.	0.6	11
64	Density of superfluid helium droplets. Physical Review B, 1998, 58, 3341-3350.	1.1	162
65	Dynamical Response of a Bose-Einstein Condensate to a Discontinuous Change in Internal State. Physical Review Letters, 1998, 81, 243-247.	2.9	241
66	Quantum evaporation from superfluid helium at normal incidence. Journal of Physics Condensed Matter, 1997, 9, L369-L374.	0.7	6
67	Variational study of aHe3impurity and of a vacancy in solidHe4. Physical Review B, 1997, 55, 3122-3127.	1.1	7
68	Collective and single-particle excitations of a trapped Bose gas. Physical Review A, 1997, 56, 3840-3845.	1.0	98
69	Frequency shift and mode coupling in the nonlinear dynamics of a Bose-condensed gas. Physical Review A, 1997, 56, 4855-4863.	1.0	67
70	Nonlinear dynamics of a Bose condensed gas. Physics Letters, Section A: General, Atomic and Solid State Physics, 1997, 227, 259-264.	0.9	57
71	Theory of quantum evaporation from superfluid helium. European Physical Journal D, 1996, 46, 2973-2980.	0.4	5
72	Unitarity, time reversal and quantum evaporation from liquid helium. European Physical Journal D, 1996, 46, 391-392.	0.4	5

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73	Thermodynamic and superfluid behavior of a trapped Bose gas. European Physical Journal D, 1996, 46, 545-546.	0.4	1
74	Quantum evaporation from the free surface of superfluid4He. Journal of Low Temperature Physics, 1996, 104, 367-397.	0.6	24
75	Order parameter at the boundary of a trapped Bose gas. Physical Review A, 1996, 54, 4213-4217.	1.0	165
76	Bosons in anisotropic traps: Ground state and vortices. Physical Review A, 1996, 53, 2477-2485.	1.0	461
77	Bosons in a magnetic trap: the condensate wave function. Physica Scripta, 1996, T66, 234-237.	1.2	3
78	The condensate wave function of a trapped atomic gas. Journal of Research of the National Institute of Standards and Technology, 1996, 101, 537.	0.4	24
79	Density functional calculations for4He droplets. Zeitschrift FÃ¼r Physik D-Atoms Molecules and Clusters, 1995, 35, 67-75.	1.0	45
80	Dispersion of ripplons in superfluid4He. Journal of Low Temperature Physics, 1995, 98, 227-250.	0.6	27
81	Rotons and Quantum Evaporation from Superfluid4He. Physical Review Letters, 1995, 75, 2510-2513.	2.9	41
82	Structural and dynamical properties of superfluid helium: A density-functional approach. Physical Review B, 1995, 52, 1193-1209.	1.1	284
83	Bounds for the phonon-roton dispersion in superfluidHe4. Physical Review B, 1995, 52, 1236-1241.	1.1	29
84	Dynamic Structure Function of 3He-4He Mixtures in the Deep Inelastic Regime. , 1995, , 101-107.		0
85	Variational calculations forHe3impurities onHe4droplets. Physical Review B, 1994, 49, 15253-15257.	1.1	22
86	Atomic and molecular impurities in4He clusters. Zeitschrift FÃ¼r Physik D-Atoms Molecules and Clusters, 1994, 29, 61-66.	1.0	131
87	Dynamic structure function in3He-4He mixtures. Physica B: Condensed Matter, 1994, 194-196, 859-860.	1.3	0
88	Dynamic structure function inâˆ’43He mixtures. Physical Review B, 1993, 48, 7409-7418.	1.1	15
89	Static response function for longitudinal and transverse excitations in superfluid helium. Physical Review B, 1992, 46, 13991-13996.	1.1	14
90	Structure of vortices in helium at zero temperature. Physical Review B, 1992, 46, 5482-5488.	1.1	59

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91	Static response function in superfluid4He. Journal of Low Temperature Physics, 1992, 89, 325-333.	0.6	1
92	Vortices with more than one quantum of circulation in4He at negative pressure. Journal of Low Temperature Physics, 1992, 89, 425-428.	0.6	9
93	Density functional calculations for the structure of vortices in superfluid4He. Journal of Low Temperature Physics, 1992, 89, 453-456.	0.6	5
94	Freezing of Liquid Helium at Zero Temperature: A Density Functional Approach. Europhysics Letters, 1991, 16, 205-210.	0.7	15
95	Magnetic susceptibility and collisionless spin waves in liquid3He and3He-4He mixtures. Journal of Low Temperature Physics, 1990, 78, 1-12.	0.6	4
96	Sum rules and spin multipair excitations in liquidHe3. Physical Review Letters, 1989, 63, 532-535.	2.9	15
97	3He impurities on4He clusters. Zeitschrift FÃ¼r Physik D-Atoms Molecules and Clusters, 1989, 14, 263-270.	1.0	32
98	Surface tension of liquid3He at low temperature. Journal of Low Temperature Physics, 1989, 77, 307-317.	0.6	59
99	Effects of temperature and magnetization on the maximum solubility of 3He in 4He. Journal of Low Temperature Physics, 1988, 71, 311-317.	0.6	53
100	Surface state of3He on liquid4He. Physica Scripta, 1988, 38, 204-206.	1.2	15
101	Hartree-Fock calculations for 3Heî—¸4He mixtures at zero temperature. Physics Letters, Section A: General, Atomic and Solid State Physics, 1985, 112, 171-174.	0.9	17
102	Macroscopic models for sound propagation in normal liquid3He. Nuovo Cimento Della Societa Italiana Di Fisica D - Condensed Matter, Atomic, Molecular and Chemical Physics, Biophysics, 1985, 6, 445-467.	0.4	4
103	Bragg spectroscopy of the multi-branch Bogoliubov spectrum of elongated Bose-Einstein condensates. , 0, , .		0