

Massimo Boninsegni

List of Publications by Year in descending order

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139
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139
times ranked

2058
citing authors

#	ARTICLE	IF	CITATIONS
1	Quasi-one-dimensional ^4He in nanopores. Physical Review B, 2022, 105, .	1.1	2
2	Bound state of a ^3He atom at the interface of crystal and superfluid ^4He . Results in Physics, 2022, 38, 105604.	2.0	2
3	Phase Diagram of Hard Core Bosons with Anisotropic Interactions. Journal of Low Temperature Physics, 2022, 209, 34-43.	0.6	1
4	Roton excitation in overpressurized superfluid ^4He . Physical Review B, 2021, 103, .	1.1	1
5	Superfluid Transition and Specific Heat of the 2D x-y Model: Monte Carlo Simulation. Applied Sciences (Switzerland), 2021, 11, 4931.	1.3	8
6	Muonium hydride: The lowest density crystal. Physical Review Research, 2021, 3, .	1.3	1
7	Computer simulations of supercooled liquid hydrogen mixtures and the possible crystallization slowdown. Results in Physics, 2021, 27, 104521.	2.0	0
8	Quasi-2D ^2H : On the Verge of Turning Superfluid?. Journal of Low Temperature Physics, 2021, 202, 1-10.	0.6	2
9	Morphology of dipolar Bose droplets. Results in Physics, 2021, 31, 104935.	2.0	1
10	Tuning the quantumness of simple Bose systems: A universal phase diagram. Proceedings of the National Academy of Sciences of the United States of America, 2020, 117, 27231-27237.	3.3	8
11	Comment on "Berezinskii-Kosterlitz-Thouless transition in two-dimensional dipolar stripes". Physical Review A, 2020, 102, .	1.0	2
12	Superfluid Response of Parahydrogen Clusters in Superfluid ^4He . Journal of Low Temperature Physics, 2020, 201, 193-199.	0.6	3
13	Dipolar bosons in one dimension: The case of longitudinal dipole alignment. Physical Review A, 2020, 101, .	1.0	4
14	Specific heat of thin ^4He films on graphite. Physical Review B, 2020, 102, .	1.1	3
15	Absence of Superfluidity in 2D Dipolar Bose Striped Crystals. Journal of Low Temperature Physics, 2019, 196, 413-422.	0.6	22
16	Second-layer crystalline phase of helium films on graphite. Physical Review B, 2019, 99, .	1.1	6
17	Patterned Supersolids in Dipolar Bose Systems. Journal of Low Temperature Physics, 2019, 197, 337-347.	0.6	34
18	Computer Simulation Study of Nanoscale Size Parahydrogen Clusters. Journal of Low Temperature Physics, 2019, 195, 51-59.	0.6	3

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19	Search for superfluidity in supercooled liquid parahydrogen. <i>Physical Review B</i> , 2018, 97, .	1.1	11
20	Adsorption of parahydrogen on graphene. <i>Physical Review B</i> , 2018, 97, .	1.1	2
21	Kinetic energy and momentum distribution of isotopic liquid helium mixtures. <i>Journal of Chemical Physics</i> , 2018, 148, 102308.	1.2	9
22	Dynamic structure factor of superfluid ^4He from quantum Monte Carlo: Maximum entropy revisited. <i>Physical Review B</i> , 2018, 98, .	1.1	18
23	Phases of dipolar bosons in a bilayer geometry. <i>Physical Review A</i> , 2017, 95, .	1.0	18
24	Absence of superfluidity in a quasi-one-dimensional parahydrogen fluid adsorbed inside carbon nanotubes. <i>Physical Review B</i> , 2017, 95, .	1.1	14
25	Atomic displacements in quantum crystals. <i>Physical Review B</i> , 2017, 95, .	1.1	9
26	Classical and quantum filaments in the ground state of trapped dipolar Bose gases. <i>Physical Review A</i> , 2017, 96, .	1.0	48
27	The Momentum Distribution of Liquid ^4He . <i>Journal of Low Temperature Physics</i> , 2017, 189, 158-184.	0.6	10
28	Hard-Core Repulsion and Supersolid Cluster Crystals. <i>Journal of Low Temperature Physics</i> , 2016, 184, 1071-1079.	0.6	2
29	Absence of superfluidity in a parahydrogen film intercalated within a crystal of Na atoms. <i>Physical Review B</i> , 2016, 93, .	1.1	11
30	Low-density phases of ^3He monolayers adsorbed on graphite. <i>Physical Review B</i> , 2016, 93, .	1.1	8
31	Quasi-one-dimensional parahydrogen in nanopores. <i>Physical Review B</i> , 2016, 93, .	1.1	16
32	Ground-state phase diagram of Gaussian-core bosons in two dimensions. <i>Physical Review B</i> , 2016, 93, .	1.1	4
33	Superfluidity of ^4He nanoclusters in confinement. <i>Physical Review B</i> , 2015, 92, .	1.1	2
34	Superfluid response of two-dimensional parahydrogen clusters in confinement. <i>Journal of Chemical Physics</i> , 2015, 142, 134303.	1.2	0
35	Coexistence, Interfacial Energy, and the Fate of Microemulsions of 2D Dipolar Bosons. <i>Physical Review Letters</i> , 2014, 113, 240407.	2.9	29
36	Exchange-induced crystallization of soft-core bosons. <i>New Journal of Physics</i> , 2014, 16, 033038.	1.2	18

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37	Enhanced superfluid response of parahydrogen in nanoscale confinement. <i>Physical Review B</i> , 2014, 90, .	1.1	10
38	Systematics of small parahydrogen clusters in two dimensions. <i>Journal of Chemical Physics</i> , 2014, 140, 204310.	1.2	3
39	Pair potentials and equation of state of solid <i>para</i> -hydrogen to megabar pressure. <i>Physical Review B</i> , 2013, 88, .	1.1	20
40	Ground State Phase Diagram of Parahydrogen in One Dimension. <i>Physical Review Letters</i> , 2013, 111, 235303.	2.9	30
41	Quasi-2D Liquid He3. <i>Physical Review Letters</i> , 2013, 111, 045303.	2.9	16
42	Phase diagram of ^4He on graphene. <i>Physical Review B</i> , 2013, 87, .	1.1	29
43	Mesoscopic dipolar quantum crystals. <i>Physical Review A</i> , 2013, 87, .	1.0	11
44	Demixing in symmetric supersolid mixtures. <i>Physical Review A</i> , 2013, 88, .	1.0	4
45	Excitation Spectrum of a Supersolid. <i>Physical Review Letters</i> , 2012, 108, 175301.	2.9	104
46	Ground-state phase diagram of the quantum J_1 on the honeycomb lattice. <i>Physical Review B</i> , 2012, 85, .	1.1	87
47	Role of Bose Statistics in Crystallization and Quantum Jamming. <i>Physical Review Letters</i> , 2012, 109, 025302.	2.9	34
48	Population size bias in diffusion Monte Carlo. <i>Physical Review E</i> , 2012, 86, 056712.	0.8	46
49	<i>Colloquium</i> : Supersolids: What and where are they?. <i>Reviews of Modern Physics</i> , 2012, 84, 759-776.	16.4	300
50	Supersolid Phases of Cold Atom Assemblies. <i>Journal of Low Temperature Physics</i> , 2012, 168, 137-149.	0.6	39
51	Bose soft discs: a minimal model for supersolidity. <i>Molecular Physics</i> , 2011, 109, 2807-2812.	0.8	8
52	On the Possible "Supersolid" Character of Parahydrogen Clusters. <i>Journal of Physical Chemistry A</i> , 2011, 115, 6831-6837.	1.1	29
53	On the Existence of Supersolid ^4He Monolayer Films. <i>Journal of Low Temperature Physics</i> , 2011, 165, 67-77.	0.6	9
54	Phase diagram of soft-core bosons in two dimensions. <i>Physical Review B</i> , 2011, 83, .	1.1	55

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55	$\langle \text{He} \rangle$ Luttinger Liquid in Nanopores. Physical Review Letters, 2011, 106, 105303.	2.9	77
56	Quantum demixing in binary mixtures of dipolar bosons. Physical Review A, 2011, 83, .	1.0	27
57	Structure, Bose-Einstein condensation, and superfluidity of two-dimensional confined dipolar assemblies. Physical Review B, 2011, 84, .	1.1	22
58	Thin Helium Film on a Glass Substrate. Journal of Low Temperature Physics, 2010, 159, 441-451.	0.6	16
59	The role of defects in Supersolid Helium-4. Physics Procedia, 2010, 7, 80-84.	1.2	1
60	Phases of lattice hard-core bosons in a periodic superlattice. Physical Review B, 2010, 81, .	1.1	7
61	Off-diagonal correlations in a one-dimensional gas of dipolar bosons. New Journal of Physics, 2010, 12, 033032.	1.2	11
62	Supersolid Droplet Crystal in a Dipole-Blockaded Gas. Physical Review Letters, 2010, 105, 135301.	2.9	206
63	Strongly Correlated Gases of Rydberg-Dressed Atoms: Quantum and Classical Dynamics. Physical Review Letters, 2010, 104, 223002.	2.9	267
64	Quantum statistics and the momentum distribution of liquid parahydrogen. Physical Review B, 2009, 79, .	1.1	28
65	Disorder-induced superfluidity. Physical Review B, 2009, 79, .	1.1	24
66	Ground-state properties of quantum many-body systems: entangled-plaquette states and variational Monte Carlo. New Journal of Physics, 2009, 11, 083026.	1.2	83
67	Classical and quantum physics of hydrogen clusters. Journal of Physics Condensed Matter, 2009, 21, 164205.	0.7	25
68	Parahydrogen clusters: Numerical estimates and physical effects. Journal of Physics: Conference Series, 2009, 150, 032059.	0.3	7
69	Local Stress and Superfluid Properties of Solid $\langle \text{He} \rangle$. Physical Review Letters, 2008, 101, 097202.	2.9	72
70	Disorder and the elusive superfluid phase of para-hydrogen. Physical Review B, 2008, 78, .	1.1	12
71	Phase diagram of an anisotropic bosonict \hat{a} model. Physical Review B, 2008, 77, .	1.1	15
72	Vacancy supersolid of hard-core bosons on the square lattice. Physical Review B, 2008, 78, .	1.1	41

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73	Local Superfluidity of Parahydrogen Clusters. Physical Review Letters, 2008, 100, 145301.	2.9	65
74	Phase diagram of H_4 adsorbed on graphite. Physical Review B, 2008, 78, .	1.1	74
75	Structure, superfluidity, and quantum melting of hydrogen clusters. Physical Review A, 2007, 75, .	1.0	104
76	Superfluidity of isotopically doped parahydrogen clusters. Physical Review A, 2007, 76, .	1.0	20
77	Luttinger Liquid in the Core of a Screw Dislocation in Helium-4. Physical Review Letters, 2007, 99, 035301.	2.9	185
78	Superfluidity of Grain Boundaries in SolidHe4. Physical Review Letters, 2007, 98, 135301.	2.9	140
79	Molecular hydrogen isotopes adsorbed on krypton-preplated graphite. Physical Review B, 2007, 76, .	1.1	9
80	Worm algorithm and diagrammatic Monte Carlo: A new approach to continuous-space path integral Monte Carlo simulations. Physical Review E, 2006, 74, 036701.	0.8	310
81	Worm Algorithm for Continuous-Space Path Integral Monte Carlo Simulations. Physical Review Letters, 2006, 96, 070601.	2.9	284
82	Fate of Vacancy-Induced Supersolidity inHe4. Physical Review Letters, 2006, 97, 080401.	2.9	126
83	Superfluidity and Quantum Melting of H_2 Clusters. Physical Review Letters, 2006, 97, 045301.	2.9	111
84	Superglass Phase ofHe4. Physical Review Letters, 2006, 96, 105301.	2.9	175
85	CAN INCOMMENSURATION STABILIZE A SUPERFLUID PHASE OF PARA-HYDROGEN?. International Journal of Modern Physics B, 2006, 20, 2677-2681.	1.0	0
86	CAN INCOMMENSURATION STABILIZE A SUPERFLUID PHASE OF <i>PARA</i> -HYDROGEN?. , 2006, , .		0
87	Adsorption of para-hydrogen on krypton pre-plated graphite. Journal of Low Temperature Physics, 2005, 140, 269-279.	0.6	4
88	Permutation Sampling in Path Integral Monte Carlo. Journal of Low Temperature Physics, 2005, 141, 27-46.	0.6	46
89	Adsorption of para-hydrogen on fullerenes. Physical Review B, 2005, 71, .	1.1	18
90	Supersolid Phase of Hard-Core Bosons on a Triangular Lattice. Physical Review Letters, 2005, 95, 237204.	2.9	156

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91	Path integral ground state with a fourth-order propagator: Application to condensed helium. Journal of Chemical Physics, 2005, 122, 114504.	1.2	75
92	Theoretical study of H ₂ in a two-dimensional crystalline matrix. New Journal of Physics, 2005, 7, 78-78.	1.2	21
93	Melting of a p ² -H ₂ monolayer on a lithium substrate. Physical Review B, 2004, 70, .	1.1	18
94	Low-temperature phase diagram of condensed para-hydrogen in two dimensions. Physical Review B, 2004, 70, .	1.1	30
95	Structure and energetics of helium films on alkali substrates. Physical Review B, 2004, 70, .	1.1	21
96	Wetting of Spherical Surfaces by Quantum Fluids. Journal of Low Temperature Physics, 2004, 134, 309-314.	0.6	14
97	Adsorption of H ₂ on Alkali Metal Substrates. Journal of Low Temperature Physics, 2004, 134, 315-320.	0.6	3
98	Helium Adsorption on Alkali Metal Substrates: Comparison of Density Functional and Path Integral Monte Carlo Results. Journal of Low Temperature Physics, 2004, 134, 327-332.	0.6	2
99	Condensate Fraction in Liquid ⁴ He. Journal of Low Temperature Physics, 2004, 136, 129-137.	0.6	47
100	Hard Core Bosons on a Triangular Lattice. Journal of Low Temperature Physics, 2003, 132, 39-53.	0.6	20
101	Adsorption of atoms and fluids on spherical surfaces. Physical Review B, 2003, 68, .	1.1	39
102	Phase separation and stripes in a boson version of a doped quantum antiferromagnet. Physical Review B, 2002, 65, .	1.1	11
103	BOSE CONDENSATION IN A RESTRICTED GEOMETRY. International Journal of Modern Physics B, 2001, 15, 1659-1662.	1.0	0
104	Ab initio potentials and the equation of state of condensed helium at high pressure. Journal of Chemical Physics, 2001, 115, 2629-2633.	1.2	33
105	Phase Separation in Mixtures of Hard Core Bosons. Physical Review Letters, 2001, 87, 087201.	2.9	44
106	Helium in One-Dimensional Nanopores: Free Dispersion, Localization, and Commensurate/Incommensurate Transitions with Nonrigid Orbitals. Physical Review Letters, 2001, 86, 3360-3363.	2.9	42
107	Quantum Monte Carlo study of the equation of state of solid ³ He. Physica B: Condensed Matter, 2000, 284-288, 365-366.	1.3	1
108	Ground State of ⁴ He in One Dimension. Journal of Low Temperature Physics, 2000, 118, 1-6.	0.6	46

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109	Equation of State of Solid ³ He. Physical Review Letters, 2000, 84, 2650-2653.	2.9	47
110	Condensation of Helium in Nanotube Bundles. Physical Review Letters, 2000, 84, 3883-3886.	2.9	113
111	BOSE CONDENSATION IN A RESTRICTED GEOMETRY. , 2000, , .		0
112	Atoms in nanotubes: Small dimensions and variable dimensionality. American Journal of Physics, 1999, 67, 1170-1176.	0.3	42
113	Helium Adsorption on a Lithium Substrate. Physical Review Letters, 1999, 83, 2002-2005.	2.9	43
114	Interstitial He and Ne in Nanotube Bundles. Journal of Low Temperature Physics, 1998, 113, 447-452.	0.6	63
115	Path integral study of the ⁴ He wetting transition. Journal of Low Temperature Physics, 1998, 110, 685-689.	0.6	6
116	Superfluidity of Monolayer Helium Films. Journal of Low Temperature Physics, 1998, 113, 393-398.	0.6	7
117	Excitations of Liquid ⁴ He in Disorder. Journal of Low Temperature Physics, 1998, 112, 251-264.	0.6	14
118	Bose condensate and structure of isotopic liquid-helium mixtures. Europhysics Letters, 1997, 40, 287-292.	0.7	8
119	Microscopic Calculation of Superfluidity and Kinetic Energies in Isotopic Liquid Helium Mixtures. Physical Review Letters, 1997, 78, 1727-1730.	2.9	51
120	Condensate and final-state effects in superfluid ⁴ He. Physical Review B, 1997, 56, 14620-14630.	1.1	36
121	Momentum Distribution and Final State Effects in Liquid Neon. Journal of Low Temperature Physics, 1997, 109, 287-308.	0.6	16
122	Monte Carlo study of isotopic liquid Helium mixtures. European Physical Journal D, 1996, 46, 303-304.	0.4	0
123	Ground state of a frustrated quantum antiferromagnet: Fixed-node Green function Monte Carlo study. Physics Letters, Section A: General, Atomic and Solid State Physics, 1996, 216, 313-320.	0.9	7
124	Density fluctuations in liquid ⁴ He. Path integrals and maximum entropy. Journal of Low Temperature Physics, 1996, 104, 339-357.	0.6	89
125	Direct measurements and path integral Monte Carlo calculations of kinetic energies of solid neon. Journal of Physics Condensed Matter, 1996, 8, 6665-6684.	0.7	30
126	A simple theory for the cuprates: the Antiferro-magnetic van Hove scenario. Journal of Superconductivity and Novel Magnetism, 1995, 8, 483-486.	0.5	3

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127	Path Integral Monte Carlo Simulation of Isotopic Liquid Helium Mixtures. Physical Review Letters, 1995, 74, 2288-2291.	2.9	94
128	Ground state of a triangular quantum antiferromagnet: Fixed-node Green-function Monte Carlo study. Physical Review B, 1995, 52, 15304-15311.	1.1	21
129	Isotopic shift of helium melting pressure: Path integral Monte Carlo study. Physical Review Letters, 1994, 72, 1854-1857.	2.9	48
130	Flat quasiparticle dispersion in the 2Dt-Jmodel. Physical Review Letters, 1994, 73, 728-731.	2.9	204
131	Monte Carlo study of the energy dispersion curve of a mobile hole in a quantum antiferromagnet. Physics Letters, Section A: General, Atomic and Solid State Physics, 1994, 188, 330-336.	0.9	7
132	Ground state of two holes in a quantum antiferromagnet: Green's function Monte Carlo study. Physics Letters, Section A: General, Atomic and Solid State Physics, 1993, 178, 175-179.	0.9	1
133	Two-holed-wave binding in the physical region of the t-Jmodel: A Green's-function Monte Carlo study. Physical Review B, 1993, 47, 11897-11904.	1.1	59
134	Green's-function Monte Carlo study of the t-Jmodel. Physical Review B, 1992, 46, 560-563.	1.1	37
135	Variational description of a quasihole excitation in a quantum antiferromagnet. Physical Review B, 1992, 45, 4877-4884.	1.1	29
136	Quasihole excitation in a quantum antiferromagnet: Variational Monte Carlo calculation. Physical Review B, 1991, 43, 10353-10363.	1.1	31
137	Observation of a propagating normal/superconducting interface via μ SR analysis in YBa ₂ Cu ₃ O _x . Journal of Applied Physics, 1989, 66, 745-747.	1.1	3
138	Low-temperature bolometer array. Review of Scientific Instruments, 1989, 60, 661-665.	0.6	1