

Davide E Galli

List of Publications by Year in descending order

Source: <https://exaly.com/author-pdf/3023576/publications.pdf>

Version: 2024-02-01

88
papers

1,379
citations

331670

21
h-index

395702

33
g-index

89
all docs

89
docs citations

89
times ranked

725
citing authors

#	ARTICLE	IF	CITATIONS
1	Quantum Circuits for the Preparation of Spin Eigenfunctions on Quantum Computers. Symmetry, 2022, 14, 624.	2.2	4
2	Multi-class quantum classifiers with tensor network circuits for quantum phase recognition. Physics Letters, Section A: General, Atomic and Solid State Physics, 2022, 434, 128056.	2.1	19
3	Dynamical stochastic simulation of complex electrical behavior in neuromorphic networks of metallic nanojunctions. Scientific Reports, 2022, 12, .	3.3	2
4	Solving Rubikâ€™s cube via quantum mechanics and deep reinforcement learning. Journal of Physics A: Mathematical and Theoretical, 2021, 54, 425302.	2.1	3
5	Low-temperature ordering of the dimer phase of a two-dimensional model of core-softened particles. Physical Review E, 2021, 104, 044602.	2.1	4
6	Evolution of static and dynamical density correlations of one-dimensional soft-core bosons from the Tonks-Girardeau limit to a clustering fluid. Physical Review A, 2021, 104, .	2.5	1
7	Crystallization kinetics of atomic crystals revealed by a single-shot and single-particle X-ray diffraction experiment. Proceedings of the National Academy of Sciences of the United States of America, 2021, 118, .	7.1	7
8	Characterizing crystalline defects in single Xe nanoparticles from angular correlations of single-shot diffracted X-rays. Journal of Physics: Conference Series, 2020, 1412, 202028.	0.4	0
9	Emergence of an Ising critical regime in the clustering of one-dimensional soft matter revealed through string variables. Physical Review E, 2020, 102, 042134.	2.1	5
10	Crystal growth rates in supercooled atomic liquid mixtures. Nature Materials, 2020, 19, 512-516.	27.5	16
11	Characterizing crystalline defects in single nanoparticles from angular correlations of single-shot diffracted X-rays. IUCr, 2020, 7, 276-286.	2.2	4
12	Dynamical structure factor of a fermionic supersolid on an optical lattice. Physical Review A, 2020, 102, .	2.5	3
13	Ultrafast Structural Dynamics of Nanoparticles in Intense Laser Fields. Physical Review Letters, 2019, 123, 123201.	7.8	14
14	Coherent Diffraction Imaging in Transmission Electron Microscopy for Atomic Resolution Quantitative Studies of the Matter. Materials, 2018, 11, 2323.	2.9	5
15	Static density response of one-dimensional soft bosons across the clustering transition. Journal of Physics: Conference Series, 2018, 1041, 012009.	0.4	3
16	Probing Quantum Turbulence in ^4He by Quantum Evaporation Measurements. Physical Review Letters, 2018, 121, 015302.	7.8	9
17	Facing the phase problem in Coherent Diffractive Imaging via Memetic Algorithms. Scientific Reports, 2017, 7, 42236.	3.3	20
18	Statistical and computational intelligence approach to analytic continuation in Quantum Monte Carlo. Advances in Physics: X, 2017, 2, 302-323.	4.1	26

#	ARTICLE	IF	CITATIONS
19	Microscopic Study of Static and Dynamical Properties of Dilute One-Dimensional Soft Bosons. Journal of Low Temperature Physics, 2017, 187, 719-726.	1.4	7
20	Quantum Critical Behavior of One-Dimensional Soft Bosons in the Continuum. Physical Review Letters, 2017, 119, 215301.	7.8	16
21	Linear Response of One-Dimensional Liquid ${}^4\text{He}$ to External Perturbations. Journal of Low Temperature Physics, 2017, 187, 419-426.	1.4	2
22	Quasi-One-Dimensional Electronic States Inside and Outside Helium-Plated Carbon Nanotubes. Journal of Low Temperature Physics, 2016, 185, 161-173.	1.4	0
23	Dynamical structure factor of one-dimensional hard rods. Physical Review A, 2016, 94, .	2.5	18
24	Roton Excitations and the Fluid-Solid Phase Transition in Superfluid 2D Yukawa Bosons. Journal of Low Temperature Physics, 2016, 185, 39-58.	1.4	6
25	Low-density phases of He_3 monolayers adsorbed on graphite. Physical Review B, 2016, 93, .	3.2	8
26	One-Dimensional Liquid Dynamical Properties beyond Luttinger-Liquid Theory. Physical Review Letters, 2016, 116, 135302.	7.8	37
27	Dynamics of charge migration in poly(para-phenylene vinylene) films and nanocomposites with single walled carbon nanotubes. Journal of Physics Condensed Matter, 2016, 28, 045304.	1.8	0
28	Imaginary time density-density correlations for two-dimensional electron gases at high density. Journal of Chemical Physics, 2015, 143, 164108.	3.0	23
29	Mixing effects in the crystallization of supercooled quantum binary liquids. Journal of Chemical Physics, 2015, 143, 064504.	3.0	3
30	Condensed phase of Bose-Fermi mixtures with a pairing interaction. Physical Review A, 2015, 91, .	2.5	15
31	Path Integral Monte Carlo Study Confirms a Highly Ordered Snowball in ${}^4\text{He}$ Nanodroplets Doped with an Ar^+ Ion. Journal of Low Temperature Physics, 2015, 180, 29-36.	1.4	12
32	Implementation of the linear method for the optimization of Jastrow-Feenberg and backflow correlations. Computer Physics Communications, 2015, 190, 62-71.	7.5	7
33	Many-body Bose systems and the hard-sphere model: dynamic properties from the weak to the strong interaction regime. Journal of Physics: Conference Series, 2014, 529, 012022.	0.4	3
34	Quantum Monte Carlo study of a vortex in superfluid ${}^4\text{He}$ and search for a vortex state in the solid. Physical Review B, 2014, 89, .	3.2	15
35	Imaginary time correlations and the phaseless auxiliary field quantum Monte Carlo. Journal of Chemical Physics, 2014, 140, 024107.	3.0	19
36	Observation of crystallization slowdown in supercooled parahydrogen and orthodeuterium quantum liquid mixtures. Physical Review B, 2014, 89, .	3.2	12

#	ARTICLE	IF	CITATIONS
37	Superfluid State of 4He on Graphane and Grapheneâ€“Fluoride: Anisotropic Roton States. Journal of Low Temperature Physics, 2013, 171, 699-710.	1.4	16
38	Density Functional Theory and Bose Statistics for the Freezing of Superfluid 4He. Journal of Low Temperature Physics, 2013, 171, 259-265.	1.4	5
39	Excitation spectrum in two-dimensional superfluid 4He. Low Temperature Physics, 2013, 39, 793-800.	0.6	17
40	Novel behavior of monolayer quantum gases on graphene, graphane and fluorographene. Journal of Physics Condensed Matter, 2013, 25, 443001.	1.8	15
41	Quantum Monte Carlo study of the dynamic structure factor in the gas and crystal phase of hard-sphere bosons. Physical Review B, 2013, 88, .	3.2	15
42	Dynamic structure factor for $\langle \rho(\mathbf{r}, t) \rho(\mathbf{r}', t') \rangle$ in two dimensions. Physical Review B, 2013, 87, .	3.2	22
43	Microscopic characterization of overpressurized superfluid ^4He . Physical Review B, 2012, 85, .	3.2	27
44	Equation of state of two-dimensional ^3He at zero temperature. Physical Review B, 2012, 85, .	3.2	17
45	Quantized vortices in two dimensional solid ^4He . Journal of Physics: Conference Series, 2012, 400, 012063.	0.4	2
46	Adsorption of He isotopes on fluorographene and graphane: Fluid and superfluid phases from quantum Monte Carlo calculations. Physical Review B, 2012, 86, .	3.2	19
47	Novel substrates for Helium adsorption: Graphane and Grapheneâ€“Fluoride. Journal of Physics: Conference Series, 2012, 400, 012010.	0.4	10
48	Study of Solid 4He in Two Dimensions. Journal of Low Temperature Physics, 2012, 168, 235-250.	1.4	3
49	Path Integral Monte Carlo Study of ^4He Clusters Doped with Alkali and Alkali-Earth Ions. Journal of Physical Chemistry A, 2011, 115, 7300-7309.	2.5	44
50	Accurate Density Response Function of Superfluid 4He at Freezing Pressure: Is DFT Successful for Superfluid Freezing?. Journal of Low Temperature Physics, 2011, 162, 160-166.	1.4	6
51	Long-range correlations in quantum solids. Molecular Physics, 2011, 109, 2855-2862.	1.7	4
52	Off-diagonal long-range order studied in a soft-core solid: Two-dimensional screened Coulomb bosons. Physical Review B, 2011, 84, .	3.2	6
53	Ab initio low-energy dynamics of superfluid and solid ^4He Physical Review B, 2010, 82, .	3.2	81
54	Quantum dislocations: the fate of multiple vacancies in two-dimensional solid ^4He . Journal of Physics Condensed Matter, 2010, 22, 145401.	1.8	11

#	ARTICLE	IF	CITATIONS
55	Exact ground state Monte Carlo method for Bosons without importance sampling. Journal of Chemical Physics, 2009, 131, 154108.	3.0	54
56	Zero-temperature study of vacancies in solid ⁴ He. Journal of Physics: Conference Series, 2009, 150, 032090.	0.4	6
57	Real time dynamics from quantum Monte Carlo data: A genetic algorithm approach. Journal of Physics: Conference Series, 2009, 150, 032116.	0.4	2
58	Zero-Point Vacancies in Quantum Solids. Journal of Low Temperature Physics, 2008, 153, 250-265.	1.4	14
59	Path-integral ground-state Monte Carlo study of two-dimensional solid ^4He . Physical Review B, 2008, 77, .	3.2	25
60	Solid ⁴ He and the Supersolid Phase: from Theoretical Speculation to the Discovery of a New State of Matter? – A Review of the Past and Present Status of Research. Journal of the Physical Society of Japan, 2008, 77, 111010.	1.6	50
61	Bounds for the superfluid fraction from exact quantum Monte Carlo local densities. Physical Review B, 2007, 76, .	3.2	10
62	Pressurized ⁴ He in Cylindrical and in Hexagonal Pores. Journal of Low Temperature Physics, 2007, 146, 95-114.	1.4	17
63	Two-Body Correlations and the Superfluid Fraction for Nonuniform Systems. Journal of Low Temperature Physics, 2007, 149, 53-63.	1.4	4
64	Transverse Phonon Frequencies in bcc Solid ⁴ He. AIP Conference Proceedings, 2006, , .	0.4	1
65	Solid ⁴ He in Narrow Porous Media. AIP Conference Proceedings, 2006, , .	0.4	0
66	Off-Diagonal Long-Range Order in Solid ⁴ He. AIP Conference Proceedings, 2006, , .	0.4	0
67	Bose-Einstein Condensation of Incommensurate Solid ⁴ He. Physical Review Letters, 2006, 96, 165301.	7.8	43
68	BOSE-EINSTEIN CONDENSATION IN BULK AND CONFINED SOLID HELIUM. International Journal of Modern Physics B, 2006, 20, 5081-5092.	2.0	1
69	Bose-Einstein condensation in solid ⁴ He. Physical Review B, 2005, 71, .	3.2	40
70	Layer by layer solidification of ⁴ He in narrow porous media. Physical Review B, 2005, 72, .	3.2	28
71	Alkali and alkali-earth ions in ⁴ He systems. Physical Review B, 2004, 69, .	3.2	51
72	Disorder Phenomena in Quantum Solids with Vacancies. Journal of Low Temperature Physics, 2004, 134, 121-131.	1.4	25

#	ARTICLE	IF	CITATIONS
73	The Shadow Path Integral Ground State Method: Study of Confined Solid ⁴ He. Journal of Low Temperature Physics, 2004, 136, 343-359.	1.4	17
74	Vacancy Excitation Spectrum in Solid ⁴ He and Longitudinal Phonons. Physical Review Letters, 2003, 90, 175301.	7.8	17
75	Recent progress in simulation of the ground state of many Boson systems. Molecular Physics, 2003, 101, 1697-1703.	1.7	45
76	BOSE-EINSTEIN CONDENSATION AND EXCITATIONS IN SOLID ⁴ He WITH VACANCIES. International Journal of Modern Physics B, 2003, 17, 5243-5253.	2.0	1
77	Variational Monte Carlo Calculations of ⁴ He Adsorbed on Graphite. Journal of Low Temperature Physics, 2002, 126, 205-210.	1.4	2
78	Pure and alkali-ion-doped droplets of [^{sup 4}]He. Journal of Chemical Physics, 2001, 115, 10239.	3.0	37
79	Alkali ions in superfluid ⁴ He and structure of the snowball. Physical Review B, 2001, 64, .	3.2	46
80	Vacancies in Solid ⁴ He and Bose Einstein Condensation. Journal of Low Temperature Physics, 2001, 124, 197-207.	1.4	25
81	Fluctuation effects at the free surface of superfluid ⁴ He. Journal of Physics Condensed Matter, 2000, 12, 6009-6022.	1.8	11
82	Variational calculation of excited-state properties of a ³ He impurity in superfluid ⁴ He. Physical Review B, 1999, 60, 3476-3484.	3.2	13
83	WHAT IS A ROTON?. International Journal of Modern Physics B, 1999, 13, 607-616.	2.0	20
84	Variational theory of bulk ⁴ He with shadow wave functions: Ground state and the phonon-maxon-roton spectrum. Physical Review B, 1998, 58, 909-924.	3.2	53
85	Excitation spectrum of a ³ He impurity in superfluid ⁴ He. European Physical Journal D, 1996, 46, 295-296.	0.4	3
86	Accurate description of excitations in superfluid ⁴ He. European Physical Journal D, 1996, 46, 297-298.	0.4	1
87	Rotons and Roton Wave Packets in Superfluid ⁴ He. Physical Review Letters, 1996, 77, 5401-5404.	7.8	31
88	Variational theory of rotons in superfluid ⁴ He. Journal of Low Temperature Physics, 1995, 101, 755-760.	1.4	18