

Ryan Barnett

List of Publications by Year in descending order

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Version: 2024-02-01

39
papers

1,333
citations

361413
20
h-index

330143
37
g-index

40
all docs

40
docs citations

40
times ranked

1251
citing authors

#	ARTICLE	IF	CITATIONS
1	Quantum Magnetism with Multicomponent Dipolar Molecules in an Optical Lattice. Physical Review Letters, 2006, 96, 190401.	7.8	169
2	Classifying Novel Phases of Spinor Atoms. Physical Review Letters, 2006, 97, 180412.	7.8	130
3	Electron-phonon interaction in ultrasmall-radius carbon nanotubes. Physical Review B, 2005, 71, .	3.2	77
4	Prethermalization in quenched spinor condensates. Physical Review A, 2011, 84, .	2.5	72
5	Order by disorder in spin-orbit-coupled Bose-Einstein condensates. Physical Review A, 2012, 85, .	2.5	72
6	Nematic Order by Disorder in Spin-2 Bose-Einstein Condensates. Physical Review Letters, 2007, 98, 190404.	7.8	71
7	Electrochemical gating of individual single-wall carbon nanotubes observed by electron transport measurements and resonant Raman spectroscopy. Applied Physics Letters, 2004, 84, 2052-2054.	3.3	66
8	Edge-state instabilities of bosons in a topological band. Physical Review A, 2013, 88, .	2.5	56
9	SU(3) Spin-Orbit Coupling in Systems of Ultracold Atoms. Physical Review Letters, 2012, 109, 235308.	7.8	55
10	Geometrical approach to hydrodynamics and low-energy excitations of spinor condensates. Physical Review B, 2009, 80, .	3.2	54
11	Classifying vortices in S^3 Bose-Einstein condensates. Physical Review A, 2007, 76, .	2.5	50
12	Electronic structure of overstretched DNA. Physical Review B, 2002, 66, .	3.2	42
13	Interacting Hofstadter Spectrum of Atoms in an Artificial Gauge Field. Physical Review Letters, 2010, 104, 255303.	7.8	39
14	Selective Population of Edge States in a 2D Topological Band System. Physical Review Letters, 2015, 115, 245302.	7.8	38
15	Bogoliubov theory of interacting bosons on a lattice in a synthetic magnetic field. Physical Review A, 2011, 83, .	2.5	31
16	Spinor Dynamics in an Antiferromagnetic Spin-1 Thermal Bose Gas. Physical Review Letters, 2013, 111, 025301.	7.8	31
17	Antiferromagnetic spinor condensates are quantum rotors. Physical Review A, 2010, 82, .	2.5	29
18	Strong-coupling Bose polarons in one dimension: Condensate deformation and modified Bogoliubov phonons. Physical Review Research, 2020, 2, .	3.6	29

#	ARTICLE	IF	CITATIONS
19	Theoretical and Experimental Studies of Carbon Nanotube Electromechanical Coupling. <i>Physical Review Letters</i> , 2004, 92, 236804.	7.8	28
20	Vortex Lattice Transitions in Cyclic Spinor Condensates. <i>Physical Review Letters</i> , 2008, 100, 240405.	7.8	25
21	Superconducting and charge-density wave instabilities in ultrasmall-radius carbon nanotubes. <i>Solid State Communications</i> , 2005, 135, 335-339.	1.9	20
22	Vortex lattice locking in rotating two-component Bose-Einstein condensates. <i>New Journal of Physics</i> , 2008, 10, 043030.	2.9	19
23	Spinor Bose-Einstein-condensate phase-sensitive amplifier for SU(1,1) interferometry. <i>Physical Review A</i> , 2018, 98, .	2.5	17
24	Loop-structure stability of a double-well-lattice Bose-Einstein condensate. <i>Physical Review A</i> , 2012, 86, .	2.5	14
25	Static field tunneling ionization of H ₂ ⁺ . <i>Physical Review A</i> , 1999, 59, 4843-4846.	2.5	13
26	Quantum rotor theory of spinor condensates in tight traps. <i>Physical Review A</i> , 2011, 83, .	2.5	13
27	Topological Edge-State Manifestation of Interacting 2D Condensed Boson-Lattice Systems in a Harmonic Trap. <i>Physical Review Letters</i> , 2017, 119, 203204.	7.8	12
28	Vortex synchronization in Bose-Einstein condensates: a time-dependent Gross-Pitaevskii equation approach. <i>New Journal of Physics</i> , 2010, 12, 043004.	2.9	10
29	Local topological markers in odd dimensions. <i>Physical Review B</i> , 2021, 103, .	3.2	8
30	Exotic Vortex Lattices in Binary Repulsive Superfluids. <i>Physical Review Letters</i> , 2019, 122, 045301.	7.8	7
31	Order-by-disorder degeneracy lifting of interacting bosons on the dice lattice. <i>Physical Review A</i> , 2014, 90, .	2.5	6
32	Simulating infinite vortex lattices in superfluids. <i>Journal of Physics Condensed Matter</i> , 2016, 28, 285201.	1.8	6
33	Instabilities of bosonic spin currents in optical lattices. <i>Physical Review A</i> , 2011, 84, .	2.5	5
34	Vortex lattices in binary mixtures of repulsive superfluids. <i>Physical Review A</i> , 2018, 97, .	2.5	5
35	Stochastic-field approach to the quench dynamics of the one-dimensional Bose polaron. <i>Physical Review Research</i> , 2021, 3, .	3.6	4
36	Frustration-free Hamiltonians supporting Majorana zero edge modes. <i>New Journal of Physics</i> , 2017, 19, 103034.	2.9	3

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37	Particle-hole symmetric localization in optical lattices using time modulated random on-site potentials. Physical Review B, 2010, 82, .	3.2	1
38	Quantum rotor theory of systems of spin-2 bosons. Physical Review A, 2016, 94, .	2.5	1
39	1D quasicrystals and topological markers. Materials for Quantum Technology, 0, , .	3.1	0