

# Ryan Barnett

## List of Publications by Year in descending order

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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	Local topological markers in odd dimensions. <i>Physical Review B</i> , 2021, 103, .	3.2	8
2	Stochastic-field approach to the quench dynamics of the one-dimensional Bose polaron. <i>Physical Review Research</i> , 2021, 3, .	3.6	4
3	Strong-coupling Bose polarons in one dimension: Condensate deformation and modified Bogoliubov phonons. <i>Physical Review Research</i> , 2020, 2, .	3.6	29
4	Exotic Vortex Lattices in Binary Repulsive Superfluids. <i>Physical Review Letters</i> , 2019, 122, 045301.	7.8	7
5	Vortex lattices in binary mixtures of repulsive superfluids. <i>Physical Review A</i> , 2018, 97, .	2.5	5
6	Spinor Bose-Einstein-condensate phase-sensitive amplifier for SU(1,1) interferometry. <i>Physical Review A</i> , 2018, 98, .	2.5	17
7	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
8	Frustration-free Hamiltonians supporting Majorana zero edge modes. <i>New Journal of Physics</i> , 2017, 19, 103034.	2.9	3
9	Simulating infinite vortex lattices in superfluids. <i>Journal of Physics Condensed Matter</i> , 2016, 28, 285201.	1.8	6
10	Quantum rotor theory of systems of spin-2 bosons. <i>Physical Review A</i> , 2016, 94, .	2.5	1
11	Selective Population of Edge States in a 2D Topological Band System. <i>Physical Review Letters</i> , 2015, 115, 245302.	7.8	38
12	Order-by-disorder degeneracy lifting of interacting bosons on the dice lattice. <i>Physical Review A</i> , 2014, 90, .	2.5	6
13	Spinor Dynamics in an Antiferromagnetic Spin-1 Thermal Bose Gas. <i>Physical Review Letters</i> , 2013, 111, 025301.	7.8	31
14	Edge-state instabilities of bosons in a topological band. <i>Physical Review A</i> , 2013, 88, .	2.5	56
15	Order by disorder in spin-orbit-coupled Bose-Einstein condensates. <i>Physical Review A</i> , 2012, 85, .	2.5	72
16	SU(3) Spin-Orbit Coupling in Systems of Ultracold Atoms. <i>Physical Review Letters</i> , 2012, 109, 235308.	7.8	55
17	Loop-structure stability of a double-well-lattice Bose-Einstein condensate. <i>Physical Review A</i> , 2012, 86, .	2.5	14
18	Instabilities of bosonic spin currents in optical lattices. <i>Physical Review A</i> , 2011, 84, .	2.5	5

#	ARTICLE	IF	CITATIONS
19	Prethermalization in quenched spinor condensates. <i>Physical Review A</i> , 2011, 84, .	2.5	72
20	Quantum rotor theory of spinor condensates in tight traps. <i>Physical Review A</i> , 2011, 83, .	2.5	13
21	Bogoliubov theory of interacting bosons on a lattice in a synthetic magnetic field. <i>Physical Review A</i> , 2011, 83, .	2.5	31
22	Interacting Hofstadter Spectrum of Atoms in an Artificial Gauge Field. <i>Physical Review Letters</i> , 2010, 104, 255303.	7.8	39
23	Antiferromagnetic spinor condensates are quantum rotors. <i>Physical Review A</i> , 2010, 82, .	2.5	29
24	Particle-hole symmetric localization in optical lattices using time modulated random on-site potentials. <i>Physical Review B</i> , 2010, 82, .	3.2	1
25	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
26	Geometrical approach to hydrodynamics and low-energy excitations of spinor condensates. <i>Physical Review B</i> , 2009, 80, .	3.2	54
27	Vortex lattice locking in rotating two-component Bose-Einstein condensates. <i>New Journal of Physics</i> , 2008, 10, 043030.	2.9	19
28	Vortex Lattice Transitions in Cyclic Spinor Condensates. <i>Physical Review Letters</i> , 2008, 100, 240405.	7.8	25
29	Nematic Order by Disorder in Spin-2 Bose-Einstein Condensates. <i>Physical Review Letters</i> , 2007, 98, 190404.	7.8	71
30	Classifying vortices in $S^2$ Bose-Einstein condensates. <i>Physical Review A</i> , 2007, 76, .	7.8	25
31	Quantum Magnetism with Multicomponent Dipolar Molecules in an Optical Lattice. <i>Physical Review Letters</i> , 2006, 96, 190401.	7.8	169
32	Classifying Novel Phases of Spinor Atoms. <i>Physical Review Letters</i> , 2006, 97, 180412.	7.8	130
33	Superconducting and charge-density wave instabilities in ultrasmall-radius carbon nanotubes. <i>Solid State Communications</i> , 2005, 135, 335-339.	1.9	20
34	Electron-phonon interaction in ultrasmall-radius carbon nanotubes. <i>Physical Review B</i> , 2005, 71, .	3.2	77
35	Theoretical and Experimental Studies of Carbon Nanotube Electromechanical Coupling. <i>Physical Review Letters</i> , 2004, 92, 236804.	7.8	28
36	Electrochemical gating of individual single-wall carbon nanotubes observed by electron transport measurements and resonant Raman spectroscopy. <i>Applied Physics Letters</i> , 2004, 84, 2052-2054.	3.3	66

#	ARTICLE	IF	CITATIONS
37	Electronic structure of overstretched DNA. Physical Review B, 2002, 66, .	3.2	42
38	Static field tunneling ionization of H <sub>2</sub> <sup>+</sup> . Physical Review A, 1999, 59, 4843-4846.	2.5	13
39	1D quasicrystals and topological markers. Materials for Quantum Technology, 0, , .	3.1	0