

Vito Scarola

List of Publications by Year in descending order

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65
papers

2,191
citations

279798

23
h-index

214800

47
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67
all docs

67
docs citations

67
times ranked

2278
citing authors

#	ARTICLE	IF	CITATIONS
1	The ALPS project release 2.0: open source software for strongly correlated systems. Journal of Statistical Mechanics: Theory and Experiment, 2011, 2011, P05001.	2.3	528
2	Quantum Phases of the Extended Bose-Hubbard Hamiltonian: Possibility of a Supersolid State of Cold Atoms in Optical Lattices. Physical Review Letters, 2005, 95, 033003.	7.8	162
3	Robustness of Topologically Protected Surface States in Layering of BiTe_2 Films. Physical Review Letters, 2010, 105, 186801.	7.8	136
4	Quantitative Determination of Temperature in the Approach to Magnetic Order of Ultracold Fermions in an Optical Lattice. Physical Review Letters, 2010, 104, 180401.	7.8	136
5	Dispersion of the Excitations of Fractional Quantum Hall States. Science, 2009, 324, 1044-1047.	12.6	102
6	Cooper instability of composite fermions. Nature, 2000, 406, 863-865.	27.8	91
7	Searching for a supersolid in cold-atom optical lattices. Physical Review A, 2006, 73, .	2.5	75
8	Rotons of composite fermions: Comparison between theory and experiment. Physical Review B, 2000, 61, 13064-13072.	3.2	68
9	Stripe Formation in the Fractional Quantum Hall Regime. Physical Review Letters, 2001, 87, 256803.	7.8	66
10	Anyonic braiding in optical lattices. Proceedings of the National Academy of Sciences of the United States of America, 2007, 104, 18415-18420.	7.1	61
11	Exchange gate in solid-state spin-quantum computation: The applicability of the Heisenberg model. Physical Review A, 2005, 71, .	2.5	60
12	Discerning Incompressible and Compressible Phases of Cold Atoms in Optical Lattices. Physical Review Letters, 2009, 102, 135302.	7.8	51
13	Néel temperature and thermodynamics of the half-filled three-dimensional Hubbard model by diagrammatic determinant Monte Carlo. Physical Review B, 2013, 87, .	3.2	48
14	Chirality in Quantum Computation with Spin Cluster Qubits. Physical Review Letters, 2004, 93, 120503.	7.8	43
15	Phase diagram of bilayer composite fermion states. Physical Review B, 2001, 64, .	3.2	42
16	Possible Pairing-Induced Even-Denominator Fractional Quantum Hall Effect in the Lowest Landau Level. Physical Review Letters, 2002, 88, 216804.	7.8	42
17	Majorana Corner Modes with Solitons in an Attractive Hubbard-Hofstadter Model of Cold Atom Optical Lattices. Physical Review Letters, 2019, 123, 060402.	7.8	40
18	Phonon drag effect in single-walled carbon nanotubes. Physical Review B, 2002, 66, .	3.2	32

#	ARTICLE	IF	CITATIONS
19	Emergence of Artificial Photons in an Optical Lattice. <i>Physical Review Letters</i> , 2006, 97, 200401.	7.8	31
20	Dzyaloshinskii-Moriya Interaction and Spiral Order in Spin-orbit Coupled Optical Lattices. <i>Scientific Reports</i> , 2015, 5, 10050.	3.3	28
21	Edge Transport in 2D Cold Atom Optical Lattices. <i>Physical Review Letters</i> , 2007, 98, 210403.	7.8	27
22	Probing a topological quantum critical point in semiconductor-superconductor heterostructures. <i>Physical Review B</i> , 2012, 85, .	3.2	25
23	Excitonic collapse of higher Landau level fractional quantum Hall effect. <i>Physical Review B</i> , 2000, 62, R16259-R16262.	3.2	23
24	Stroboscopic Generation of Topological Protection. <i>Physical Review Letters</i> , 2010, 104, 230501.	7.8	22
25	Equilibration Dynamics of Strongly Interacting Bosons in 2D Lattices with Disorder. <i>Physical Review Letters</i> , 2017, 119, 073002.	7.8	22
26	Emergent Kinetics and Fractionalized Charge in 1D Spin-Orbit Coupled Flatband Optical Lattices. <i>Physical Review Letters</i> , 2014, 112, 110404.	7.8	21
27	Cold-atom optical lattices as quantum analog simulators for aperiodic one-dimensional localization without disorder. <i>Physical Review A</i> , 2006, 73, .	2.5	13
28	Dynamics of disordered states in the Bose-Hubbard model with confinement. <i>Physical Review A</i> , 2017, 95, .	2.5	13
29	Quantum anomalous Hall state from spatially decaying interactions on the decorated honeycomb lattice. <i>Physical Review B</i> , 2018, 97, .	3.2	13
30	Pseudospin Quantum Computation in Semiconductor Nanostructures. <i>Physical Review Letters</i> , 2003, 91, 167903.	7.8	12
31	Excitation gaps of incompressible composite fermion states: Approach to the Fermi sea. <i>Physical Review B</i> , 2002, 66, .	3.2	10
32	Subband engineering even-denominator quantum Hall states. <i>Physical Review B</i> , 2010, 82, .	3.2	10
33	Percolation-enhanced supersolids in the extended Bose-Hubbard model. <i>Physical Review B</i> , 2012, 85, .	3.2	10
34	Models of strong interaction in flat-band graphene nanoribbons: Magnetic quantum crystals. <i>Physical Review B</i> , 2012, 85, .	3.2	9
35	Jastrow-correlated wave functions for flat-band lattices. <i>Physical Review B</i> , 2011, 83, .	3.2	8
36	Superfluidity in the absence of kinetics in spin-orbit-coupled optical lattices. <i>Physical Review A</i> , 2017, 95, .	2.5	8

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37	Thermal canting of spin-bond order. <i>Physical Review B</i> , 2009, 79, .	3.2	7
38	Boson core compressibility. <i>Physical Review A</i> , 2012, 85, .	2.5	7
39	Disordered Supersolids in the Extended Bose-Hubbard Model. <i>Scientific Reports</i> , 2017, 7, 12752.	3.3	7
40	Even-Odd Effect in Spontaneously Coherent Bilayer Quantum Hall Droplets. <i>Physical Review Letters</i> , 2003, 91, 026804.	7.8	6
41	Thermal versus quantum fluctuations of optical-lattice fermions. <i>Physical Review A</i> , 2012, 85, .	2.5	6
42	Dynamics of Hubbard-band quasiparticles in disordered optical lattices. <i>Physical Review A</i> , 2015, 92, .	2.5	6
43	Chiral topological phases in optical lattices without synthetic fields. <i>Physical Review A</i> , 2018, 98, .	2.5	6
44	Particle-hole-symmetric model for a paired fractional quantum Hall state in a half-filled Landau level. <i>Physical Review B</i> , 2019, 99, .	3.2	6
45	Nondestructive dispersive imaging of rotationally excited ultracold molecules. <i>Physical Chemistry Chemical Physics</i> , 2020, 22, 20531-20544.	2.8	6
46	Probingn-spin correlations in optical lattices. <i>Physical Review A</i> , 2007, 76, .	2.5	5
47	Spin-orbit-driven transitions between Mott insulators and finite-momentum superfluids of bosons in optical lattices. <i>Physical Review A</i> , 2017, 96, .	2.5	5
48	Initializing a quantum register from Mott-insulator states in optical lattices. <i>Physical Review A</i> , 2007, 75, .	2.5	4
49	Identifying quantum topological phases through statistical correlation. <i>Physical Review B</i> , 2011, 83, .	3.2	4
50	Enhancing the Thermal Stability of Majorana Fermions with Redundancy Using Dipoles in Optical Lattices. <i>Physical Review Letters</i> , 2013, 111, 220401.	7.8	4
51	Interacting composite fermions. <i>Solid State Communications</i> , 2001, 117, 117-122.	1.9	3
52	Emulating non-Abelian topological matter in cold-atom optical lattices. <i>Physical Review A</i> , 2008, 77, .	2.5	3
53	Distinguishing phases with ansatz wave functions. <i>Physical Review B</i> , 2010, 81, .	3.2	3
54	Reordering fractional Chern insulators into stripes of fractional charges with long-range interactions. <i>Physical Review B</i> , 2015, 92, .	3.2	3

#	ARTICLE	IF	CITATIONS
55	Two-particle correlation functions in cluster perturbation theory: Hubbard spin susceptibilities. Physical Review B, 2020, 101, .	3.2	3
56	Composite fermion theory of excitations in the fractional quantum Hall effect. Solid State Communications, 2005, 135, 602-609.	1.9	2
57	Pseudo-spin quantum computation in semiconductor nanostructures. New Journal of Physics, 2005, 7, 177-177.	2.9	2
58	Wave-function vortex attachment via matrix products: Application to atomic Fermi gases in flat spin-orbit bands. Physical Review B, 2014, 89, .	3.2	1
59	Stability of emergent kinetics in optical lattices with artificial spin-orbit coupling. Physical Review A, 2016, 94, .	2.5	1
60	Thermometry for Laughlin States of Ultracold Atoms. Physical Review Letters, 2017, 118, 115302.	7.8	1
61	Stabilizing topological superfluidity of lattice fermions. Physical Review A, 2021, 104, .	2.5	1
62	POSSIBLE NEW PHASES OF COMPOSITE FERMIONS. International Journal of Modern Physics B, 2002, 16, 2946-2951.	2.0	0
63	Flux-driven quantum spin liquids in kagome optical lattices. Physical Review A, 2019, 100, .	2.5	0
64	POSSIBLE NEW PHASES OF COMPOSITE FERMIONS. , 2002, , .		0
65	Quantifying entanglement in cluster states built with error-prone interactions. Physical Review Research, 2021, 3, .	3.6	0