

Luca Barbiero

List of Publications by Year in descending order

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34
papers

782
citations

623734

14
h-index

501196

28
g-index

34
all docs

34
docs citations

34
times ranked

616
citing authors

#	ARTICLE	IF	CITATIONS
1	Topological Quantum Critical Points in the Extended Bose-Hubbard Model. Physical Review Letters, 2022, 128, 043402.	7.8	23
2	Cold atoms meet lattice gauge theory. Philosophical Transactions Series A, Mathematical, Physical, and Engineering Sciences, 2022, 380, 20210064.	3.4	72
3	Revealing the topological nature of the bond order wave in a strongly correlated quantum system. Physical Review Research, 2022, 4, .	3.6	8
4	Scar states in deconfined \mathbb{Z}_2 lattice gauge theories. Physical Review B, 2022, 106, .	3.2	18
5	Clustered superfluids in the one-dimensional Bose-Hubbard model with extended correlated hopping. Physical Review B, 2021, 103, .	3.2	4
6	Confinement and Mott Transitions of Dynamical Charges in One-Dimensional Lattice Gauge Theories. Physical Review Letters, 2021, 127, 167203.	7.8	19
7	Bound state dynamics in the long-range spin- $\frac{1}{2}$ XXZ model. Physical Review B, 2021, 104, .	3.2	18
8	Disorderless Quasi-localization of Polar Gases in One-Dimensional Lattices. Physical Review Letters, 2020, 124, 010404.	7.8	19
9	Homogeneous and domain-wall topological Haldane conductors with dressed Rydberg atoms. Physical Review A, 2020, 101, .	2.5	7
10	Bose-Hubbard physics in synthetic dimensions from interaction Trotterization. Physical Review Research, 2020, 2, .	3.6	8
11	Interaction-Induced Fractionalization and Topological Superconductivity in the Polar Molecules Anisotropic t - J Model. Physical Review Letters, 2019, 122, 106402.	7.8	12
12	Dynamics and correlations in Motzkin and Fredkin spin chains. Journal of Statistical Mechanics: Theory and Experiment, 2019, 2019, 124025.	2.3	2
13	Floquet approach to \mathbb{Z}_2 lattice gauge theories with ultracold atoms in optical lattices. Nature Physics, 2019, 15, 1168-1173.	16.7	214
14	Coupling ultracold matter to dynamical gauge fields in optical lattices: From flux attachment to \mathbb{Z}_2 lattice gauge theories. Science Advances, 2019, 5, eaav7444.	10.3	75
15	Quenched dynamics and spin-charge separation in an interacting topological lattice. Physical Review B, 2018, 97, .	3.2	33
16	One-dimensional repulsive Fermi gas in a tunable periodic potential. Physical Review A, 2017, 96, .	2.5	9
17	Non-local order parameters as a probe for phase transitions in the extended Fermi-Hubbard model. European Physical Journal: Special Topics, 2017, 226, 2697-2704.	2.6	4
18	Spreading of correlations in a quenched repulsive and attractive one-dimensional integrable system. Physical Review B, 2017, 96, .	3.2	4

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19	Haldane topological orders in Motzkin spin chains. <i>Physical Review B</i> , 2017, 96, .	3.2	12
20	Hidden magnetism in periodically modulated one dimensional dipolar fermions. <i>New Journal of Physics</i> , 2017, 19, 123008.	2.9	11
21	Low energy quantum regimes of 1D dipolar Hubbard model with correlated hopping. <i>Journal of Physics: Conference Series</i> , 2017, 841, 012016.	0.4	3
22	Localized-interaction-induced quantum reflection and filtering of bosonic matter in a one-dimensional lattice guide. <i>New Journal of Physics</i> , 2016, 18, 055007.	2.9	1
23	Magnetic phase transition in coherently coupled Bose gases in optical lattices. <i>Physical Review A</i> , 2016, 93, .	2.5	8
24	Violation of cluster decomposition and absence of light cones in local integer and half-integer spin chains. <i>Physical Review B</i> , 2016, 94, .	3.2	43
25	Out-of-equilibrium states and quasi-many-body localization in polar lattice gases. <i>Physical Review B</i> , 2015, 92, .	3.2	27
26	Quantum bright solitons in the Bose-Hubbard model with site-dependent repulsive interactions. <i>Physical Review A</i> , 2014, 90, .	2.5	7
27	Spontaneous Peierls dimerization and emergent bond order in one-dimensional dipolar gases. <i>Physical Review A</i> , 2014, 90, .	2.5	10
28	Quantum bright solitons in a quasi-one-dimensional optical lattice. <i>Physical Review A</i> , 2014, 89, .	2.5	13
29	How hidden orders generate gaps in one-dimensional fermionic systems. <i>Physical Review B</i> , 2013, 88, .	3.2	33
30	Dipolar-induced resonance for ultracold bosons in a quasi-one-dimensional optical lattice. <i>Physical Review A</i> , 2013, 88, .	2.5	24
31	Homogeneous and inhomogeneous magnetic phases of constrained dipolar bosons. <i>Physical Review B</i> , 2011, 83, .	3.2	31
32	Phase separation and pairing regimes in the one-dimensional asymmetric Hubbard model. <i>Physical Review B</i> , 2010, 81, .	3.2	15
33	Detecting the tunneling rates for strongly interacting fermions on optical lattices. <i>Physical Review A</i> , 2010, 81, .	2.5	1
34	Phase diagram of imbalanced strongly interacting fermions on a one-dimensional optical lattice. <i>Physical Review A</i> , 2009, 80, .	2.5	4