

# Luca Barbiero

## List of Publications by Year in descending order

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docs citations

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times ranked

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#	ARTICLE	IF	CITATIONS
1	Floquet approach to $\hat{a}_2$ lattice gauge theories with ultracold atoms in optical lattices. Nature Physics, 2019, 15, 1168-1173.	16.7	214
2	Coupling ultracold matter to dynamical gauge fields in optical lattices: From flux attachment to $\hat{a}_2$ lattice gauge theories. Science Advances, 2019, 5, eaav7444.	10.3	75
3	Cold atoms meet lattice gauge theory. Philosophical Transactions Series A, Mathematical, Physical, and Engineering Sciences, 2022, 380, 20210064.	3.4	72
4	Violation of cluster decomposition and absence of light cones in local integer and half-integer spin chains. Physical Review B, 2016, 94, .	3.2	43
5	How hidden orders generate gaps in one-dimensional fermionic systems. Physical Review B, 2013, 88, .	3.2	33
6	Quenched dynamics and spin-charge separation in an interacting topological lattice. Physical Review B, 2018, 97, .	3.2	33
7	Homogeneous and inhomogeneous magnetic phases of constrained dipolar bosons. Physical Review B, 2011, 83, .	3.2	31
8	Out-of-equilibrium states and quasi-many-body localization in polar lattice gases. Physical Review B, 2015, 92, .	3.2	27
9	Dipolar-induced resonance for ultracold bosons in a quasi-one-dimensional optical lattice. Physical Review A, 2013, 88, .	2.5	24
10	Topological Quantum Critical Points in the Extended Bose-Hubbard Model. Physical Review Letters, 2022, 128, 043402.	7.8	23
11	Disorderless Quasi-localization of Polar Gases in One-Dimensional Lattices. Physical Review Letters, 2020, 124, 010404.	7.8	19
12	Confinement and Mott Transitions of Dynamical Charges in One-Dimensional Lattice Gauge Theories. Physical Review Letters, 2021, 127, 167203.	7.8	19
13	Scar states in deconfined $Z_2$ lattice gauge theories. Physical Review B, 2022, 106, .	3.2	18
14	Phase separation and pairing regimes in the one-dimensional asymmetric Hubbard model. Physical Review B, 2010, 81, .	3.2	15
15	Quantum bright solitons in a quasi-one-dimensional optical lattice. Physical Review A, 2014, 89, .	2.5	13
16	Haldane topological orders in Motzkin spin chains. Physical Review B, 2017, 96, .	3.2	12
17	Interaction-Induced Fractionalization and Topological Superconductivity in the Polar Molecules Anisotropic $tJ$ Model. Physical Review Letters, 2019, 122, 106402.	7.8	12
18	Hidden magnetism in periodically modulated one dimensional dipolar fermions. New Journal of Physics, 2017, 19, 123008.	2.9	11

#	ARTICLE	IF	CITATIONS
19	Spontaneous Peierls dimerization and emergent bond order in one-dimensional dipolar gases. Physical Review A, 2014, 90, .	2.5	10
20	One-dimensional repulsive Fermi gas in a tunable periodic potential. Physical Review A, 2017, 96, .	2.5	9
21	Magnetic phase transition in coherently coupled Bose gases in optical lattices. Physical Review A, 2016, 93, .	2.5	8
22	Bose-Hubbard physics in synthetic dimensions from interaction Trotterization. Physical Review Research, 2020, 2, .	3.6	8
23	Bound state dynamics in the long-range spin- $\frac{1}{2}$ XXZ model. Physical Review B, 2021, 104, .	3.4	8
24	Revealing the topological nature of the bond order wave in a strongly correlated quantum system. Physical Review Research, 2022, 4, .	3.6	8
25	Quantum bright solitons in the Bose-Hubbard model with site-dependent repulsive interactions. Physical Review A, 2014, 90, .	2.5	7
26	Homogeneous and domain-wall topological Haldane conductors with dressed Rydberg atoms. Physical Review A, 2020, 101, .	2.5	7
27	Phase diagram of imbalanced strongly interacting fermions on a one-dimensional optical lattice. Physical Review A, 2009, 80, .	2.5	4
28	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
29	Spreading of correlations in a quenched repulsive and attractive one-dimensional integrable system. Physical Review B, 2017, 96, .	3.2	4
30	Clustered superfluids in the one-dimensional Bose-Hubbard model with extended correlated hopping. Physical Review B, 2021, 103, .	3.2	4
31	Low energy quantum regimes of 1D dipolar Hubbard model with correlated hopping. Journal of Physics: Conference Series, 2017, 841, 012016.	0.4	3
32	Dynamics and correlations in Motzkin and Fredkin spin chains. Journal of Statistical Mechanics: Theory and Experiment, 2019, 2019, 124025.	2.3	2
33	Detecting the tunneling rates for strongly interacting fermions on optical lattices. Physical Review A, 2010, 81, .	2.5	1
34	Localized-interaction-induced quantum reflection and filtering of bosonic matter in a one-dimensional lattice guide. New Journal of Physics, 2016, 18, 055007.	2.9	1