Pietro Massignan

List of Publications by Year
in descending order

61 papers	3,702 citations	159573 30 h-index	123420 61 g-index
62 all docs	62 docs citations	62 times ranked	2380 citing authors

#	Article	IF	Citations
1	Synthetic Gauge Fields in Synthetic Dimensions. Physical Review Letters, 2014, 112, 043001.	7.8	446
2	Metastability and coherence of repulsive polarons in a strongly interacting Fermi mixture. Nature, 2012, 485, 615-618.	27.8	372
3	Polarons, dressed molecules and itinerant ferromagnetism in ultracold Fermi gases. Reports on Progress in Physics, 2014, 77, 034401.	20.1	325
4	Detection of Zak phases and topological invariants in a chiral quantum walk of twisted photons. Nature Communications, 2017, 8, 15516.	12.8	229
5	Observation of the topological Anderson insulator in disordered atomic wires. Science, 2018, 362, 929-933.	12.6	217
6	Repulsive Fermi Polarons in a Resonant Mixture of Ultracold <mml:math xmlns:mml="http://www.w3.org/1998/Math/MathML" display="inline"><mml:mrow><mml:mmultiscripts><mml:mrow><mml:mi>Li</mml:mi></mml:mrow><mml:mprescripts /><mml:none /><mml:mrow><mml:mn>6</mml:mn></mml:mrow></mml:mmultiscripts></mml:mrow></mml:math> Atoms. Physical Review Letters, 2017, 118, 083602.	7.8	197
7	Nonergodic Subdiffusion from Brownian Motion in an Inhomogeneous Medium. Physical Review Letters, 2014, 112, 150603.	7.8	165
8	Weak Ergodicity Breaking of Receptor Motion in Living Cells Stemming from Random Diffusivity. Physical Review X, 2015, 5, .	8.9	120
9	Repulsive polarons and itinerant ferromagnetism in strongly polarized Fermi gases. European Physical Journal D, 2011, 65, 83-89.	1.3	110
10	Topological characterization of chiral models through their long time dynamics. New Journal of Physics, 2018, 20, 013023.	2.9	94
11	Viscous relaxation and collective oscillations in a trapped Fermi gas near the unitarity limit. Physical Review A, 2005, 71, .	2.5	89
12	Strong-coupling ansatz for the one-dimensional Fermi gas in a harmonic potential. Science Advances, 2015, 1, e1500197.	10.3	81
13	Three-dimensional strong localization of matter waves by scattering from atoms in a lattice with a confinement-induced resonance. Physical Review A, 2006, 74, .	2.5	68
14	Static properties of positive ions in atomic Bose-Einstein condensates. Physical Review A, 2005, 71, .	2.5	62
15	Bose Polarons at Finite Temperature and Strong Coupling. Physical Review Letters, 2018, 120, 050405.	7.8	62
16	Decay of Polarons and Molecules in a Strongly Polarized Fermi Gas. Physical Review Letters, 2010, 105, 020403.	7.8	52
17	Energy-dependent effective interactions for dilute many-body systems. Physical Review A, 2007, 75, .	2.5	48
18	Twin peaks in rf spectra of Fermi gases at unitarity. Physical Review A, 2008, 77, .	2.5	47

#	Article	IF	Citations
19	Two-dimensional topological quantum walks in the momentum space of structured light. Optica, 2020, 7, 108.	9.3	44
20	Itinerant Ferromagnetism in a Polarized Two-Component Fermi Gas. Physical Review Letters, 2013, 110, 230401.	7.8	43
21	Efimov states near a Feshbach resonance. Physical Review A, 2008, 78, .	2.5	42
22	One-dimensional model for the dynamics and expansion of elongated Bose-Einstein condensates. Physical Review A, 2003, 67, .	2.5	41
23	Magnetism in Strongly Interacting One-Dimensional Quantum Mixtures. Physical Review Letters, 2015, 115, 247202.	7.8	40
24	Polarons and dressed molecules near narrow Feshbach resonances. Europhysics Letters, 2012, 98, 10012.	2.0	37
25	Crossover between few and many fermions in a harmonic trap. Physical Review A, 2015, 92, .	2.5	37
26	Many interacting fermions in a one-dimensional harmonic trap: a quantum-chemical treatment. New Journal of Physics, 2015, 17, 115001.	2.9	35
27	Topological superfluids on a lattice with non-Abelian gauge fields. Europhysics Letters, 2010, 92, 46004.	2.0	34
28	Quantum Brownian motion with inhomogeneous damping and diffusion. Physical Review A, 2015, 91, .	2.5	33
29	Creating<mml:math xmlns:mml="http://www.w3.org/1998/Math/MathML" display="inline"><mml:mrow><mml:mi>p</mml:mi></mml:mrow></mml:math>-wave superfluids and topological excitations in optical lattices. Physical Review A, 2010, 81, .	2.5	32
30	Vortex dynamics in coherently coupled Bose-Einstein condensates. Physical Review A, 2017, 95, .	2.5	30
31	Spin polarons and molecules in strongly interacting atomic Fermi gases. Physical Review A, 2008, 78, .	2.5	29
32	Mobile impurity in a Bose-Einstein condensate and the orthogonality catastrophe. Physical Review A, 2021, 103, .	2.5	28
33	Efimov Trimers under Strong Confinement. Physical Review X, 2014, 4, .	8.9	27
34	Stability and breakdown of Fermi polarons in a strongly interacting Fermi-Bose mixture. Physical Review A, 2021, 103, .	2.5	25
35	Repulsive Fermi and Bose Polarons in Quantum Gases. Atoms, 2022, 10, 55.	1.6	25
36	Topological bound states of a quantum walk with cold atoms. Physical Review A, 2016, 94, .	2.5	23

#	Article	IF	Citations
37	Universality of the unitary Fermi gas: a few-body perspective. Journal of Physics B: Atomic, Molecular and Optical Physics, 2017, 50, 072001.	1.5	23
38	Thermal instability, evaporation, and thermodynamics of one-dimensional liquids in weakly interacting Bose-Bose mixtures. Physical Review A, 2021, 103, .	2.5	23
39	Universal Aspects of a Strongly Interacting Impurity in a Dilute Bose Condensate. Physical Review Letters, 2021, 126, 123403.	7.8	22
40	Quantized superfluid vortex dynamics on cylindrical surfaces and planar annuli. Physical Review A, 2017, 96, .	2.5	21
41	<mml:math xmlns:mml="http://www.w3.org/1998/Math/MathML" display="inline"><mml:mi>p</mml:mi></mml:math>-Wave Polaron. Physical Review Letters, 2012, 109, 075302.	7.8	20
42	Dropping an impurity into a Chern insulator: A polaron view on topological matter. Physical Review B, 2019, 99, .	3.2	20
43	Strongly interacting Bose gas: NoziÃ¨res and Schmitt-Rink theory and beyond. Physical Review A, 2009, 79, .	2.5	18
44	Measuring Chern numbers in Hofstadter strips. SciPost Physics, 2017, 3, .	4.9	18
45	Lindblad model of quantum Brownian motion. Physical Review A, 2016, 94, .	2.5	15
46	Renormalization-group study of Bose polarons. Physical Review A, 2021, 104, .	2.5	15
47	Blochâ€“Landauâ€“Zener dynamics induced by a synthetic field in a photonic quantum walk. APL Photonics, 2021, 6, .	5.7	14
48	Bulk detection of time-dependent topological transitions in quenched chiral models. Physical Review Research, 2020, 2, .	3.6	14
49	Measuring Topological Invariants in a Polaritonic Analog of Graphene. Physical Review Letters, 2021, 126, 127403.	7.8	13
50	Superfluid vortex dynamics on an ellipsoid and other surfaces of revolution. Physical Review A, 2022, 105, .	2.5	13
51	The glass to superfluid transition in dirty bosons on a lattice. New Journal of Physics, 2012, 14, 043043.	2.9	12
52	Superfluid vortex dynamics on a torus and other toroidal surfaces of revolution. Physical Review A, 2020, 101, .	2.5	9
53	Beyond-Luttinger-liquid thermodynamics of a one-dimensional Bose gas with repulsive contact interactions. Physical Review Research, 2019, 1, .	3.6	9
54	Atomic wave packet dynamics in finite time-dependent optical lattices. Journal of Physics B: Atomic, Molecular and Optical Physics, 2011, 44, 065301.	1.5	7

#	Article	IF	Citations
55	Superfluid vortex dynamics on planar sectors and cones. Physical Review A, 2019, 99, .	2.5	7
56	Detecting topology through dynamics in interacting fermionic wires. Physical Review Research, 2020, 2, .	3.6	6
57	Topological transport of mobile impurities. Physical Review B, 2021, 103, .	3.2	5
58	Metastability in spin-polarized Fermi gases and quasiparticle decays. New Journal of Physics, 2011, 13, 055011.	2.9	4
59	Linking topological features of the Hofstadter model to optical diffraction figures. New Journal of Physics, 2022, 24, 013028.	2.9	3
60	Weak Ergodicity Breaking of Membrane Receptor Motion Stemming from Random Diffusivity. Biophysical Journal, 2015, 108, 418a.	0.5	1
61	From Quantum Quasiparticles to a Classical Gas. Physics Magazine, 2019, 12, .	0.1	0