

Ricardo Carretero

List of Publications by Year in descending order

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Version: 2024-02-01

68
papers

2,501
citations

201575

27
h-index

189801

50
g-index

68
all docs

68
docs citations

68
times ranked

1224
citing authors

#	ARTICLE	IF	CITATIONS
1	Nonlinear waves in Bose-Einstein condensates: physical relevance and mathematical techniques. Nonlinearity, 2008, 21, R139-R202.	0.6	279
2	Dark solitons and vortices in PT -symmetric nonlinear media: From spontaneous symmetry breaking to nonlinear phase transitions. Physical Review A, 2012, 86, .	1.0	148
3	Characteristics of Two-Dimensional Quantum Turbulence in a Compressible Superfluid. Physical Review Letters, 2013, 111, 235301.	2.9	141
4	Bright-dark soliton complexes in spinor Bose-Einstein condensates. Physical Review A, 2008, 77, .	1.0	133
5	Dissipative Solitary Waves in Granular Crystals. Physical Review Letters, 2009, 102, 024102.	2.9	116
6	Guiding-center dynamics of vortex dipoles in Bose-Einstein condensates. Physical Review A, 2011, 84, .	1.0	104
7	Families of matter-waves in two-component Bose-Einstein condensates. European Physical Journal D, 2004, 28, 181-185.	0.6	99
8	Dynamics of a Few Corotating Vortices in Bose-Einstein Condensates. Physical Review Letters, 2013, 110, 225301.	2.9	89
9	VORTICES IN BOSE-EINSTEIN CONDENSATES: SOME RECENT DEVELOPMENTS. Modern Physics Letters B, 2004, 18, 1481-1505.	1.0	85
10	Multiple dark-bright solitons in atomic Bose-Einstein condensates. Physical Review A, 2011, 84, .	1.0	83
11	Stability of dark solitons in a Bose-Einstein condensate trapped in an optical lattice. Physical Review A, 2003, 68, .	1.0	72
12	Dynamics of vortex dipoles in confined Bose-Einstein condensates. Physics Letters, Section A: General, Atomic and Solid State Physics, 2011, 375, 3044-3050.	0.9	72
13	Localized breathing oscillations of Bose-Einstein condensates in periodic traps. Physical Review A, 2002, 66, .	1.0	66
14	Bifurcations, stability, and dynamics of multiple matter-wave vortex states. Physical Review A, 2010, 82, .	1.0	65
15	Inelastic collisions of solitary waves in anisotropic Bose-Einstein condensates: sling-shot events and expanding collision bubbles. New Journal of Physics, 2013, 15, 113028.	1.2	55
16	Faraday waves in Bose-Einstein condensates. Physical Review A, 2007, 76, .	1.0	53
17	Phase separation and dynamics of two-component Bose-Einstein condensates. Physical Review A, 2009, 80, .	1.0	51
18	Dynamics of vortex formation in merging Bose-Einstein condensate fragments. Physical Review A, 2008, 77, .	1.0	50

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19	Controlling the transverse instability of dark solitons and nucleation of vortices by a potential barrier. <i>Physical Review A</i> , 2010, 82, .	1.0	49
20	Three-Dimensional Nonlinear Lattices: From Oblique Vortices and Octupoles to Discrete Diamonds and Vortex Cubes. <i>Physical Review Letters</i> , 2005, 94, 203901.	2.9	44
21	Radially symmetric nonlinear states of harmonically trapped Bose-Einstein condensates. <i>Physical Review A</i> , 2008, 77, .	1.0	43
22	Statics, dynamics, and manipulations of bright matter-wave solitons in optical lattices. <i>Physical Review A</i> , 2005, 71, .	1.0	37
23	Controlling directed transport of matter-wave solitons using the ratchet effect. <i>Physical Review A</i> , 2011, 83, .	1.0	31
24	ÄEerenkov-like radiation in a binary superfluid flow past an obstacle. <i>Physical Review A</i> , 2007, 75, .	1.0	28
25	Polarized states and domain walls in spinor Bose-Einstein condensates. <i>Physical Review A</i> , 2007, 76, .	1.0	28
26	Vortex structures formed by the interference of sliced condensates. <i>Physical Review A</i> , 2008, 77, .	1.0	28
27	Exploring vortex dynamics in the presence of dissipation: Analytical and numerical results. <i>Physical Review A</i> , 2014, 89, .	1.0	28
28	Scattering and leapfrogging of vortex rings in a superfluid. <i>Physics of Fluids</i> , 2014, 26, 097101.	1.6	27
29	Single and multiple vortex rings in three-dimensional Bose-Einstein condensates: Existence, stability, and dynamics. <i>Physical Review A</i> , 2017, 95, .	1.0	24
30	Adiabatic Invariant Approach to Transverse Instability: Landau Dynamics of Soliton Filaments. <i>Physical Review Letters</i> , 2017, 118, 244101.	2.9	23
31	Manipulation of vortices by localized impurities in Bose-Einstein condensates. <i>Physical Review A</i> , 2009, 80, .	1.0	22
32	Dark spherical shell solitons in three-dimensional Bose-Einstein condensates: Existence, stability, and dynamics. <i>Physical Review A</i> , 2016, 93, .	1.0	21
33	A Modulus-Squared Dirichlet Boundary Condition for Time-Dependent Complex Partial Differential Equations and Its Application to the Nonlinear Schrödinger Equation. <i>SIAM Journal of Scientific Computing</i> , 2014, 36, A1-A19.	1.3	19
34	Stabilization of ring dark solitons in Bose-Einstein condensates. <i>Physical Review A</i> , 2015, 92, .	1.0	19
35	Numerical stability of explicit Runge-Kutta finite-difference schemes for the nonlinear Schrödinger equation. <i>Applied Numerical Mathematics</i> , 2013, 71, 24-40.	1.2	18
36	Spinor Bose-Einstein condensate flow past an obstacle. <i>Physical Review A</i> , 2009, 79, .	1.0	17

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37	Robust vortex lines, vortex rings, and hopfions in three-dimensional Bose-Einstein condensates. <i>Physical Review A</i> , 2015, 92, .	1.0	17
38	Generating and manipulating quantized vortices on-demand in a Bose-Einstein condensate: A numerical study. <i>Physical Review A</i> , 2016, 93, .	1.0	17
39	A tale of two distributions: from few to many vortices in quasi-two-dimensional Bose-Einstein condensates. <i>Proceedings of the Royal Society A: Mathematical, Physical and Engineering Sciences</i> , 2014, 470, 20140048.	1.0	16
40	Nonlinear dynamics of Bose-condensed gases by means of a -Gaussian variational approach. <i>Physica A: Statistical Mechanics and Its Applications</i> , 2008, 387, 6032-6044.	1.2	15
41	Bifurcation and stability of single and multiple vortex rings in three-dimensional Bose-Einstein condensates. <i>Physical Review A</i> , 2015, 92, .	1.0	15
42	Nonlinear excitations, stability inversions, and dissipative dynamics in quasi-one-dimensional polariton condensates. <i>Physical Review B</i> , 2011, 83, .	1.1	14
43	Solitons riding on solitons and the quantum Newton's cradle. <i>Physical Review E</i> , 2016, 93, 022202.	0.8	13
44	Directed ratchet transport in granular chains. <i>Physical Review E</i> , 2013, 88, 052202.	0.8	12
45	Vortex precession dynamics in general radially symmetric potential traps in two-dimensional atomic Bose-Einstein condensates. <i>Physical Review A</i> , 2017, 96, .	1.0	11
46	Dynamic and energetic stabilization of persistent currents in Bose-Einstein condensates. <i>Physical Review A</i> , 2014, 89, .	1.0	10
47	Planar and radial kinks in nonlinear Klein-Gordon models: Existence, stability, and dynamics. <i>Physical Review E</i> , 2018, 98, .	0.8	9
48	Pattern formation for a two-dimensional reaction-diffusion model with chemotaxis. <i>Journal of Mathematical Analysis and Applications</i> , 2019, 475, 1883-1909.	0.5	9
49	Breather stripes and radial breathers of the two-dimensional sine-Gordon equation. <i>Communications in Nonlinear Science and Numerical Simulation</i> , 2021, 94, 105596.	1.7	9
50	Existence, stability, and dynamics of monopole and Alice ring solutions in antiferromagnetic spinor condensates. <i>Physical Review A</i> , 2022, 105, .	1.0	9
51	Dynamics and stabilization of bright soliton stripes in the hyperbolic-dispersion nonlinear Schrödinger equation. <i>Communications in Nonlinear Science and Numerical Simulation</i> , 2019, 74, 268-281.	1.7	8
52	Adiabatic invariant analysis of dark and dark-bright soliton stripes in two-dimensional Bose-Einstein condensates. <i>Physical Review A</i> , 2018, 97, .	1.0	7
53	Hydrodynamics and two-dimensional dark lump solitons for polariton superfluids. <i>Physical Review E</i> , 2018, 98, 022205.	0.8	6
54	Dynamics of interacting dark soliton stripes. <i>Physical Review A</i> , 2019, 100, .	1.0	6

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55	Proper orthogonal decomposition methods for the analysis of real-time data: Exploring peak clustering in a secondhand smoke exposure intervention. <i>Journal of Computational Science</i> , 2015, 11, 102-111.	1.5	5
56	Kink-antikink stripe interactions in the two-dimensional sine-Gordon equation. <i>Communications in Nonlinear Science and Numerical Simulation</i> , 2022, 109, 106123.	1.7	5
57	Multi-hump bright solitons in a Schrödinger-mKdV system. <i>Physics Letters, Section A: General, Atomic and Solid State Physics</i> , 2018, 382, 837-845.	0.9	4
58	Reduced dynamics for one and two dark soliton stripes in the defocusing nonlinear Schrödinger equation: A variational approach. <i>Physical Review Research</i> , 2019, 1, .	1.3	4
59	Non-conservative variational approximation for nonlinear Schrödinger equations. <i>European Physical Journal Plus</i> , 2020, 135, 1.	1.2	3
60	Pairwise interactions of ring dark solitons with vortices and other rings: Stationary states, stability features, and nonlinear dynamics. <i>Physical Review A</i> , 2021, 104, .	1.0	3
61	N-soliton interactions: Effects of linear and nonlinear gain and loss. <i>AIP Conference Proceedings</i> , 2017, , .	0.3	2
62	Characterizing coherent structures in Bose-Einstein condensates through dynamic-mode decomposition. <i>Physical Review E</i> , 2019, 99, 062215.	0.8	2
63	Nonlinear waves in an experimentally motivated ring-shaped Bose-Einstein-condensate setup. <i>Physical Review A</i> , 2019, 99, .	1.0	2
64	Superfluid vortex multipoles and soliton stripes on a torus. <i>Physical Review A</i> , 2022, 105, .	1.0	1
65	Two-dimensional quantum turbulence in Bose-Einstein condensates. , 2011, , .		0
66	Stability of finite and infinite von Kármán vortex-cluster streets. <i>Physical Review E</i> , 2021, 103, 032205.	0.8	0
67	THREE-DIMENSIONAL SOLITARY WAVES AND VORTICES IN A DISCRETE NONLINEAR SCHRÖDINGER LATTICE. , 2004, , .		0
68	Energy localization and transport in two-dimensional electrical lattices. <i>IEICE Proceeding Series</i> , 2014, 2, 334-337.	0.0	0