Roberto AndrÃ© Kraenkel

List of Publications by Year
in descending order

98 papers	2,063 citations	279798 23 h-index	265206 42 g-index
105 all docs	105 docs citations	105 times ranked	1607 citing authors

#	Article	IF	Citations
1	Controlling collapse in Bose-Einstein condensates by temporal modulation of the scattering length. Physical Review A, 2003, 67, .	2.5	329
2	Coherent atomic oscillations and resonances between coupled Bose-Einstein condensates with time-dependent trapping potential. Physical Review A, 2000, 62, .	2.5	103
3	Dissipationless shock waves in Bose-Einstein condensates with repulsive interaction between atoms. Physical Review A, 2004, 69, .	2.5	88
4	Asymptotic soliton train solutions of the defocusing nonlinear SchrÃ¶dinger equation. Physical Review E, 2002, 66, 036609.	2.1	78
5	Theory of optical dispersive shock waves in photorefractive media. Physical Review A, 2007, 76, .	2.5	77
6	Biodiversity Can Help Prevent Malaria Outbreaks in Tropical Forests. PLoS Neglected Tropical Diseases, 2013, 7, e2139.	3.0	74
7	Model-based estimation of transmissibility and reinfection of SARS-CoV-2 P.1 variant. Communications Medicine, 2021, 1, .	4.2	67
8	Nonlinear short-wave propagation in ferrites. Physical Review E, 2000, 61, 976-979.	2.1	66
9	The modulational instability in deep water under the action of wind and dissipation. Journal of Fluid Mechanics, 2010, 664, 138-149.	3.4	57
10	Array of Bose-Einstein condensates under time-periodic Feshbach-resonance management. Physical Review A, 2003, 68, .	2.5	52
11	Solitons in Boseâ€“Einstein condensates trapped in a double-well potential. Physica D: Nonlinear Phenomena, 2004, 188, 213-240.	2.8	49
12	The Role of Immunity and Seasonality in Cholera Epidemics. Bulletin of Mathematical Biology, 2011, 73, 2916-2931.	1.9	46
13	Catastrophic Regime Shift in Water Reservoirs and SÃ£o Paulo Water Supply Crisis. PLoS ONE, 2015, 10, e0138278.	2.5	45
14	The Kortewegâ€“de Vries hierarchy and long waterâ€waves. Journal of Mathematical Physics, 1995, 36, 307-320.	1.1	42
15	Lie symmetry analysis and reductions of a two-dimensional integrable generalization of the Camassaâ€“Holm equation. Physics Letters, Section A: General, Atomic and Solid State Physics, 2000, 273, 183-193.	2.1	38
16	Synchronization: Stability and duration time. Physical Review E, 2002, 65, 036225.	2.1	38
17	Macroscopic quantum tunneling and resonances in coupled Boseâ€“Einstein condensates with oscillating atomic scattering length. Physics Letters, Section A: General, Atomic and Solid State Physics, 2000, 272, 395-401.	2.1	35
18	Two-dimensional integrable generalization of the Camassaâ€“Holm equation. Physics Letters, Section A: General, Atomic and Solid State Physics, 1999, 260, 218-224.	2.1	32

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19	Asymptotic soliton train solutions of Kaupâ€“Boussinesq equations. Wave Motion, 2003, 38, 355-365.	2.0	32
20	On certain new exact solutions of a diffusive predatorâ€“prey system. Communications in Nonlinear Science and Numerical Simulation, 2013, 18, 1269-1274.	3.3	27
21	On the characterization of vector rogue waves in two-dimensional two coupled nonlinear SchrÃ¶dinger equations with distributed coefficients. European Physical Journal B, 2016, 89, 1.	1.5	27
22	Camassa-Holm equation: transformation to deformed sinh-Gordon equations, cuspon and soliton solutions. Journal of Physics A, 1999, 32, 4733-4747.	1.6	26
23	On the solutions of the position-dependent effective mass SchrÃ¶dinger equation of a nonlinear oscillator related with the isotonic oscillator. Journal of Physics A: Mathematical and Theoretical, 2009, 42, 415303.	2.1	25
24	Resonances in a trapped 3D Boseâ€“Einstein condensate under periodically varying atomic scattering length. Journal of Physics B: Atomic, Molecular and Optical Physics, 2004, 37, 3535-3550.	1.5	21
25	Nonlinear surface-wave excitations in the BÃ©nard-Marangoni system. Physical Review A, 1992, 46, 4786-4790.	2.5	18
26	Modeling Habitat Split: Landscape and Life History Traits Determine Amphibian Extinction Thresholds. PLoS ONE, 2013, 8, e66806.	2.5	18
27	Linearizability of the perturbed Burgers equation. Physical Review E, 1998, 58, 2526-2530.	2.1	17
28	Whitham method for the Benjamin-Ono-Burgers equation and dispersive shocks. Physical Review E, 2007, 75, 016307.	2.1	17
29	An integrable evolution equation for surface waves in deep water. Journal of Physics A: Mathematical and Theoretical, 2014, 47, 025208.	2.1	17
30	Surface perturbations of a shallow viscous fluid heated from below and the (2+1)-dimensional Burgers equation. Physical Review A, 1992, 45, 838-841.	2.5	15
31	Soliton-cuspon interaction for the Camassa-Holm equation. Journal of Physics A, 1999, 32, 8665-8670.	1.6	15
32	Formation of soliton trains in Boseâ€“Einstein condensates as a nonlinear Fresnel diffraction of matter waves. Physics Letters, Section A: General, Atomic and Solid State Physics, 2003, 319, 406-412.	2.1	15
33	Optimal Boussinesq model for shallow-water waves interacting with a microstructure. Physical Review E, 2007, 76, 046311.	2.1	15
34	Wind-wave amplification mechanisms: possible models for steep wave events in finite depth. Natural Hazards and Earth System Sciences, 2013, 13, 2805-2813.	3.6	15
35	The reductive perturbation method and the Korteweg-de Vries hierarchy. Acta Applicandae Mathematicae, 1995, 39, 389-403.	1.0	14
36	Multiple-time higher-order perturbation analysis of the regularized long-wavelength equation. Physical Review E, 1996, 54, 2976-2981.	2.1	14

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37	First-order perturbed Kortewegâ€“de Vries solitons. Physical Review E, 1998, 57, 4775-4777.	2.1	14
38	Application of the -symmetries approach and time independent integral of the modified Emden equation. Nonlinear Analysis: Real World Applications, 2012, 13, 1102-1114.	1.7	14
39	Mixed-isotope Bose-Einstein condensates in rubidium. Physical Review A, 2004, 69, .	2.5	13
40	Patch-size and isolation effects in the Fisherâ€“Kolmogorov equation. Journal of Mathematical Biology, 2008, 57, 521-535.	1.9	13
41	On the integrable perturbations of the Camassaâ€“Holm equation. Journal of Mathematical Physics, 2000, 41, 3160-3169.	1.1	12
42	On the relationship between a 2Ã—2 matrix and second-order scalar spectral problems for integrable equations. Journal of Physics A, 2002, 35, L13-L18.	1.6	12
43	Nonlinear dynamics of short traveling capillary-gravity waves. Physical Review E, 2005, 71, 026307.	2.1	12
44	Disturbance and repair of solitary waves in blood vessels with aneurysm. Communications in Nonlinear Science and Numerical Simulation, 2009, 14, 51-60.	3.3	12
45	Competitive release and area effects. Ecological Complexity, 2012, 11, 154-159.	2.9	12
46	Integrodifference model for blowfly invasion. Theoretical Ecology, 2012, 5, 363-371.	1.0	11
47	Amplification of matter rogue waves and breathers in quasi-two-dimensional Bose-Einstein condensates. European Physical Journal B, 2016, 89, 1.	1.5	11
48	Boussinesq solitaryâ€wave as a multipleâ€time solution of the Kortewegâ€“de Vries hierarchy. Journal of Mathematical Physics, 1995, 36, 6822-6828.	1.1	10
49	Soliton propagation in a medium with Kerr nonlinearity and resonant impurities: A variational approach. Physical Review E, 2003, 67, 046615.	2.1	10
50	Assessing the best time interval between doses in a two-dose vaccination regimen to reduce the number of deaths in an ongoing epidemic of SARS-CoV-2. PLoS Computational Biology, 2022, 18, e1009978.	3.2	10
51	Surface solitary waves in a double diffusive system. Physica Scripta, 1992, 45, 289-291.	2.5	9
52	Solitons in tunnel-coupled repulsive and attractive condensates. Physical Review A, 2004, 69, .	2.5	9
53	Climate drivers of malaria at its southern fringe in the Americas. PLoS ONE, 2019, 14, e0219249.	2.5	9
54	The Role of the Korteweg-de Vries Hierarchy in the N-Soliton Dynamics of the Shallow Water Wave Equation. Journal of the Physical Society of Japan, 1997, 66, 1277-1281.	1.6	8

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55	On asymptotic solutions of integrable wave equations. Physics Letters, Section A: General, Atomic and Solid State Physics, 2001, 287, 223-232.	2.1	8
56	How population loss through habitat boundaries determines the dynamics of a predatorâ€"prey system. Ecological Complexity, 2014, 20, 33-42.	2.9	8
57	Symmetry analysis of an integrable reactionâ€"diffusion equation. Chaos, Solitons and Fractals, 2001, 12, 463-474.	5.1	7
58	Theory of small aspect ratio waves in deep water. Physica D: Nonlinear Phenomena, 2005, 211, 377-390.	2.8	7
59	Population persistence in weakly-coupled sinks. Physica A: Statistical Mechanics and Its Applications, 2012, 391, 142-146.	2.6	7
60	Brazil in the face of new SARS-CoV-2 variants: emergencies and challenges in public health. Revista Brasileira De Epidemiologia, 2021, 24, e210022.	0.8	7
61	On exterior variational calculus. Journal of Physics A, 1988, 21, 1329-1339.	1.6	6
62	Stochastic Skellam model. Physica A: Statistical Mechanics and Its Applications, 2010, 389, 60-66.	2.6	6
63	Spatialâ€"temporal pattern of cutaneous leishmaniasis in Brazil. Infectious Diseases of Poverty, 2021, 10, 86.	3.7	6
64	Perturbative coherence in field theory. Journal of Mathematical Physics, 1989, 30, 1866-1870.	1.1	5
65	Vortices in nonlocal Grossâ€"Pitaevskii equation. Journal of Physics A, 2004, 37, 6633-6651.	1.6	5
66	Integrable NLS equation with time-dependent nonlinear coefficient and self-similar attractive BEC. Communications in Nonlinear Science and Numerical Simulation, 2011, 16, 86-92.	3.3	5
67	Lie point symmetries and the time-independent integral of the damped harmonic oscillator. Physica Scripta, 2011, 83, 055005.	2.5	5
68	Do I Know You? How Individual Recognition Affects Group Formation and Structure. PLoS ONE, 2017, 12, e0170737.	2.5	5
69	Dissipative Boussinesq system of equations in the BÃ©nard-Marangoni phenomenon. Physical Review E, 1994, 49, 1759-1762.	2.1	4
70	Long-wave and short-wave asymptotics in nonlinear dispersive systems. Physical Review E, 1999, 60, 2418-2420.	2.1	4
71	Short-wave instabilities in the Benjamin-Bona-Mahoney-Peregrine equation: theory and numerics. Inverse Problems, 2001, 17, 863-870.	2.0	4
72	Finite time blow-up and breaking of solitary wind waves. Physical Review E, 2014, 90, 013006.	2.1	4

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73	Percolation across households in mechanistic models of non-pharmaceutical interventions in SARS-CoV-2 disease dynamics. Epidemics, 2022, 39, 100551.	3.0	4
74	Modified Korteweg-de Vries hierarchy with hodograph transformation: Camassaâ€"Holm and Harryâ€"Dym hierarchies. Mathematics and Computers in Simulation, 2001, 55, 483-491.	4.4	3
75	An Exact Equation for the Free Surface of a Fluid in a Porous Medium. SIAM Journal on Applied Mathematics, 2007, 67, 619-629.	1.8	3
76	A mathematical model for wave propagation in elastic tubes with inhomogeneities: Application to blood waves propagation. Physica D: Nonlinear Phenomena, 2007, 236, 131-140.	2.8	3
77	Spatial dynamics of a population with stage-dependent diffusion. Communications in Nonlinear Science and Numerical Simulation, 2015, 22, 605-610.	3.3	3
78	Greenâ€"Naghdi dynamics of surface wind waves in finite depth. Fluid Dynamics Research, 2018, 50, 025514.	1.3	3
79	Effects of a temperature dependent viscosity in surface nonlinear waves propagating in a shallow fluid heated from below. Physics Letters, Section A: General, Atomic and Solid State Physics, 1992, 169, 259-262.	2.1	2
80	Hydrothermal surface-wave instability and the Kuramoto-Sivashinsky equation. Physics Letters, Section A: General, Atomic and Solid State Physics, 1994, 185, 88-92.	2.1	2
81	Modulational instability analysis of surface-waves in the BÃ©nard-Marangoni phenomenon. Physica D: Nonlinear Phenomena, 1995, 87, 356-360.	2.8	2
82	Periodic waves and solitons in a nonlinear fibre with resonant impurities. Journal of Modern Optics, 2002, 49, 2183-2193.	1.3	2
83	Boseâ€"Einstein Condensates in 2D with Time-Periodic Scattering Length. Journal of Low Temperature Physics, 2004, 134, 671-676.	1.4	2
84	On the particular solutions of an integrable equation governing short waves in a long-wave model. Nonlinear Analysis: Real World Applications, 2011, 12, 446-449.	1.7	2
85	Theory does not meet experiment: transient dynamics changes patterns of exclusion in an intraguild predation system. Population Ecology, 2017, 59, 371-378.	1.2	2
86	Critical patch-size for two-sex populations. Mathematical Biosciences, 2018, 300, 138-144.	1.9	2
87	Milesâ€™ mechanism for generating surface water waves by wind, in finite water depth and subject to constant vorticity flow. Coastal Engineering, 2021, 170, 103976.	4.0	2
88	Anti-BRS Invariance and Lagrangianity in Classical Mechanics. Europhysics Letters, 1988, 6, 381-384.	2.0	1
89	Nonlinear diffusion process in a BÃ©nard system at the critical point for the onset of convection. Physical Review E, 1993, 47, 3303-3306.	2.1	1
90	Quantum coherent tunneling between two atomic-molecular Bose-Einstein condensates. European Physical Journal D, 2004, 30, 369-377.	1.3	1

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91	Solitary waves on a free surface of a heated Maxwell fluid. Proceedings of the Royal Society A: Mathematical, Physical and Engineering Sciences, 2009, 465, 109-121.	2.1	1
92	Evolution equation for short surface waves on water of finite depth. Physica D: Nonlinear Phenomena, 2009, 238, 1821-1825.	2.8	1
93	Boussinesq-type system of equations in the Bï¿½nard-Marangoni system. Theoretical and Mathematical Physics(Russian Federation), 1994, 99, 692-698.	0.9	0
94	Mathematical Models of Generalized Diffusion. Physica Scripta, 2001, 63, 353-356.	2.5	0
95	Solving the Levins' paradox in the logistic model to the population growth. Journal of Physics: Conference Series, 2011, 285, 012023.	0.4	0
96	The role of constant vorticity on weakly nonlinear surface gravity waves. Wave Motion, 2021, 102, 102702.	2.0	0
97	Shock Waves in Bose-Einstein Condensates. , 2004, , 285-290.		0
98	Dynamics of Discrete Solitons in Media with Varying Nonlinearity. , 2004, , 529-534.		0