Amin Chabchoub

List of Publications by Year
in descending order

72 papers	3,407 citations	172457 29 h-index	138484 58 g-index
73 all docs	73 docs citations	73 times ranked	1275 citing authors

#	Article	IF	Citations
1	Nonlinear wave evolution with data-driven breaking. Nature Communications, 2022, 13, 2343.	12.8	31
2	Galilean-transformed solitons and supercontinuum generation in dispersive media. Physica D: Nonlinear Phenomena, 2022, 439, 133342.	2.8	2
3	â€œExtraordinaryâ€•modulation instability in optics and hydrodynamics. Proceedings of the National Academy of Sciences of the United States of America, 2021, 118, .	7.1	36
4	Stabilization of Unsteady Nonlinear Waves by Phase-Space Manipulation. Physical Review Letters, 2021, 126, 174501.	7.8	11
5	Directional Coherent Wave Group From an Assimilated Non-linear Wavefield. Frontiers in Physics, 2021, 9, .	2.1	4
6	The Peregrine Breather on the Zero-Background Limit as the Two-Soliton Degenerate Solution: An Experimental Study. Frontiers in Physics, 2021, 9, .	2.1	9
7	Phase Evolution of the Time- and Space-Like Peregrine Breather in a Laboratory. Fluids, 2021, 6, 308.	1.7	4
8	Higher-order rogue wave solutions to the Kadomtsevâ€“Petviashvili 1 equation. Physica D: Nonlinear Phenomena, 2021, 426, 132990.	2.8	32
9	Experiments on uni-directional and nonlinear wave group shoaling. Ocean Dynamics, 2021, 71, 1105.	2.2	8
10	Editorial: Peregrine Soliton and Breathers in Wave Physics: Achievements and Perspectives. Frontiers in Physics, 2021, 9, .	2.1	3
11	Experimental Realization of Periodic Deep-Water Wave Envelopes with and without Dissipation. Water Waves, 2020, 2, 113-122.	1.0	4
12	Experimental reconstruction of extreme sea waves by time reversal principle. Journal of Fluid Mechanics, 2020, 884, .	3.4	11
13	Stabilization of uni-directional water wave trains over an uneven bottom. Nonlinear Dynamics, 2020, 101, 1131-1145.	5.2	6
14	Ghost Interaction of Breathers. Frontiers in Physics, 2020, 8, .	2.1	5
15	Observation of modulation instability and rogue breathers on stationary periodic waves. Physical Review Research, 2020, 2, .	3.6	34
16	Phase-suppressed hydrodynamics of solitons on constant-background plane wave. Physical Review Fluids, 2020, 5, .	2.5	3
17	Dissipative solitons in forced cyclic and symmetric structures. Mechanical Systems and Signal Processing, 2019, 117, 280-292.	8.0	3
18	Theoretical and Experimental Studies of Breather Wave Molecules. , 2019, , .		0

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19	Hydrodynamic X Waves. Physical Review Letters, 2019, 123, 184501.	7.8	7
20	On the Asymmetric Spectral Broadening of a Hydrodynamic Modulated Wave Train in the Optical Regime. Fluids, 2019, 4, 84.	1.7	5
21	Drifting breathers and Fermiâ€“Pastaâ€“Ulam paradox for water waves. Wave Motion, 2019, 90, 168-174.	2.0	17
22	Directional soliton and breather beams. Proceedings of the National Academy of Sciences of the United States of America, 2019, 116, 9759-9763.	7.1	17
23	Predicting ocean rogue waves from point measurements: An experimental study for unidirectional waves. Physical Review E, 2019, 99, 032201.	2.1	21
24	Breather Wave Molecules. Physical Review Letters, 2019, 122, 084101.	7.8	100
25	A Unifying Framework for Describing Rogue Waves. Physics Magazine, 2019, 12, .	0.1	0
26	Statistics of Extreme Waves in Coastal Waters: Large Scale Experiments and Advanced Numerical Simulations. Fluids, 2019, 4, 99.	1.7	47
27	Phase Evolution of Peregrine-Like Solitons in Nonlinear Fiber Optics. , 2019, , .		0
28	Rogue waves and analogies in optics and oceanography. Nature Reviews Physics, 2019, 1, 675-689.	26.6	215
29	Phase evolution of Peregrine-like breathers in optics and hydrodynamics. Physical Review E, 2019, 99, 012207.	2.1	35
30	Breather Rogue Waves in Random Seas. Physical Review Applied, 2018, 9, .	3.8	17
31	An experimental comparison of velocities underneath focussed breaking waves. Ocean Engineering, 2018, 155, 201-210.	4.3	39
32	Dark solitons, modulation instability and breathers in a chain of weakly nonlinear oscillators with cyclic symmetry. Journal of Sound and Vibration, 2018, 413, 467-481.	3.9	15
33	Drifting Rogue Packets. , 2018, , .		0
34	Phase Domain Walls in Weakly Nonlinear Deep Water Surface Gravity Waves. Physical Review Letters, 2018, 120, 224102.	7.8	5
35	Nonlinear spectral analysis of Peregrine solitons observed in optics and in hydrodynamic experiments. Physical Review E, 2018, 98, 022219.	2.1	49
36	Experiments on higher-order and degenerate Akhmediev breather-type rogue water waves. Journal of Ocean Engineering and Marine Energy, 2017, 3, 385-394.	1.7	12

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37	Nonconservative higher-order hydrodynamic modulation instability. Physical Review E, 2017, 96, 022219.	2.1	26
38	Spectral up- and downshifting of Akhmediev breathers under wind forcing. Physics of Fluids, 2017, 29, .	4.0	26
39	The Hydrodynamic Nonlinear SchrÃ¶dinger Equation: Space and Time. Fluids, 2016, 1, 23.	1.7	41
40	Chapter 12 Time Reversal of Linear and Nonlinear Water Waves. , 2016, , 401-436.		0
41	The Velocity Field Underneath Linear and Nonlinear Breaking Rogue Waves. , 2016, , .		1
42	Non-Gaussian properties of second-order wave orbital velocity. Coastal Engineering, 2016, 110, 42-49.	4.0	11
43	Hydrodynamic and Optical Waves: A Common Approach for Unidimensional Propagation. Lecture Notes in Physics, 2016, , 1-22.	0.7	4
44	Hydrodynamic Envelope Solitons and Breathers. Lecture Notes in Physics, 2016, , 55-87.	0.7	3
45	Experimental Observation and Theoretical Description of Multisoliton Fission in Shallow Water. Physical Review Letters, 2016, 117, 144102.	7.8	51
46	Tracking Breather Dynamics in Irregular Sea State Conditions. Physical Review Letters, 2016, 117, 144103.	7.8	59
47	Modulation Instability and Phase-Shifted Fermi-Pasta-Ulam Recurrence. Scientific Reports, 2016, 6, 28516.	3.3	112
48	Modulation Instability and Extreme Events Beyond Initial Three Wave Systems. , 2016, , .		1
49	Time-reversal of nonlinear waves: Applicability and limitations. Physical Review Fluids, 2016, 1, .	2.5	15
50	3D Stereo Imaging of Abnormal Waves in a Wave Basin. , 2015, , .		7
51	Superregular Breathers in Optics and Hydrodynamics: Omnipresent Modulation Instability beyond Simple Periodicity. Physical Review X, 2015, 5, .	8.9	91
52	The nonlinear SchrÃ¶dinger equation and the propagation of weakly nonlinear waves in optical fibers and on the water surface. Annals of Physics, 2015, 361, 490-500.	2.8	75
53	Initial wave breaking dynamics of Peregrine-type rogue waves: A numerical and experimental study. European Journal of Mechanics, B/Fluids, 2015, 49, 71-76.	2.5	42
54	Gray solitons on the surface of water. Physical Review E, 2014, 89, 011002.	2.1	16

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55	Two-stage linear-nonlinear shaping of an optical frequency comb as rogue nonlinear-SchrÃ¶dinger-equation-solution generator. Physical Review A, 2014, 89, .	2.5	47
56	Theoretical and experimental evidence of non-symmetric doubly localized rogue waves. Proceedings of the Royal Society A: Mathematical, Physical and Engineering Sciences, 2014, 470, 20140318.	2.1	50
57	Hydrodynamics of periodic breathers. Philosophical Transactions Series A, Mathematical, Physical, and Engineering Sciences, 2014, 372, 20140005.	3.4	63
58	Time-Reversal Generation of Rogue Waves. Physical Review Letters, 2014, 112, 124101.	7.8	87
59	Dynamics of Unstable Stokes Waves: A Numerical and Experimental Study. , 2014, , .		0
60	Super-rogue waves in simulations based on weakly nonlinear and fully nonlinear hydrodynamic equations. Physical Review E, 2013, 88, 012909.	2.1	65
61	Hydrodynamic Supercontinuum. Physical Review Letters, 2013, 111, 054104.	7.8	57
62	Experiments on wind-perturbed rogue wave hydrodynamics using the Peregrine breather model. Physics of Fluids, 2013, 25, .	4.0	59
63	Observation of rogue wave triplets in water waves. Physics Letters, Section A: General, Atomic and Solid State Physics, 2013, 377, 2590-2593.	2.1	64
64	Deep-Water Waves: on the Nonlinear SchrÃ¶dinger Equation and its Solutions. Journal of Theoretical and Applied Mechanics (Bulgaria), 2013, 43, .	0.0	10
65	Experimental Observation of Dark Solitons on the Surface of Water. Physical Review Letters, 2013, 110, 124101.	7.8	87
66	Experimental study of spatiotemporally localized surface gravity water waves. Physical Review E, 2012, 86, 016311.	2.1	60
67	Super Rogue Waves: Observation of a Higher-Order Breather in Water Waves. Physical Review X, 2012, 2, .	8.9	199
68	Observation of a hierarchy of up to fifth-order rogue waves in a water tank. Physical Review E, 2012, 86, 056601.	2.1	172
69	Spectral properties of the Peregrine soliton observed in a water wave tank. Journal of Geophysical Research, 2012, 117, .	3.3	18
70	Observation of rogue wave holes in a water wave tank. Journal of Geophysical Research, 2012, 117, .	3.3	21
71	Rogue Wave Observation in a Water Wave Tank. Physical Review Letters, 2011, 106, 204502.	7.8	960
72	Short-Term Prediction of the Sea State Dynamics. Proceedings in Applied Mathematics and Mechanics, 2011, 11, 699-700.	0.2	0