

# Amin Chabchoub

## List of Publications by Year in descending order

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Version: 2024-02-01

72  
papers

3,407  
citations

172386

29  
h-index

138417

58  
g-index

73  
all docs

73  
docs citations

73  
times ranked

1275  
citing authors

#	ARTICLE	IF	CITATIONS
1	Rogue Wave Observation in a Water Wave Tank. <i>Physical Review Letters</i> , 2011, 106, 204502.	2.9	960
2	Rogue waves and analogies in optics and oceanography. <i>Nature Reviews Physics</i> , 2019, 1, 675-689.	11.9	215
3	Super Rogue Waves: Observation of a Higher-Order Breather in Water Waves. <i>Physical Review X</i> , 2012, 2, .	2.8	199
4	Observation of a hierarchy of up to fifth-order rogue waves in a water tank. <i>Physical Review E</i> , 2012, 86, 056601.	0.8	172
5	Modulation Instability and Phase-Shifted Fermi-Pasta-Ulam Recurrence. <i>Scientific Reports</i> , 2016, 6, 28516.	1.6	112
6	Breather Wave Molecules. <i>Physical Review Letters</i> , 2019, 122, 084101.	2.9	100
7	Superregular Breathers in Optics and Hydrodynamics: Omnipresent Modulation Instability beyond Simple Periodicity. <i>Physical Review X</i> , 2015, 5, .	2.8	91
8	Experimental Observation of Dark Solitons on the Surface of Water. <i>Physical Review Letters</i> , 2013, 110, 124101.	2.9	87
9	Time-Reversal Generation of Rogue Waves. <i>Physical Review Letters</i> , 2014, 112, 124101.	2.9	87
10	The nonlinear Schrödinger equation and the propagation of weakly nonlinear waves in optical fibers and on the water surface. <i>Annals of Physics</i> , 2015, 361, 490-500.	1.0	75
11	Super-rogue waves in simulations based on weakly nonlinear and fully nonlinear hydrodynamic equations. <i>Physical Review E</i> , 2013, 88, 012909.	0.8	65
12	Observation of rogue wave triplets in water waves. <i>Physics Letters, Section A: General, Atomic and Solid State Physics</i> , 2013, 377, 2590-2593.	0.9	64
13	Hydrodynamics of periodic breathers. <i>Philosophical Transactions Series A, Mathematical, Physical, and Engineering Sciences</i> , 2014, 372, 20140005.	1.6	63
14	Experimental study of spatiotemporally localized surface gravity water waves. <i>Physical Review E</i> , 2012, 86, 016311.	0.8	60
15	Experiments on wind-perturbed rogue wave hydrodynamics using the Peregrine breather model. <i>Physics of Fluids</i> , 2013, 25, .	1.6	59
16	Tracking Breather Dynamics in Irregular Sea State Conditions. <i>Physical Review Letters</i> , 2016, 117, 144103.	2.9	59
17	Hydrodynamic Supercontinuum. <i>Physical Review Letters</i> , 2013, 111, 054104.	2.9	57
18	Experimental Observation and Theoretical Description of Multisoliton Fission in Shallow Water. <i>Physical Review Letters</i> , 2016, 117, 144102.	2.9	51

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19	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.	1.0	50
20	Nonlinear spectral analysis of Peregrine solitons observed in optics and in hydrodynamic experiments. Physical Review E, 2018, 98, 022219.	0.8	49
21	Two-stage linear-nonlinear shaping of an optical frequency comb as rogue nonlinear-Schrödinger-equation-solution generator. Physical Review A, 2014, 89, .	1.0	47
22	Statistics of Extreme Waves in Coastal Waters: Large Scale Experiments and Advanced Numerical Simulations. Fluids, 2019, 4, 99.	0.8	47
23	Initial wave breaking dynamics of Peregrine-type rogue waves: A numerical and experimental study. European Journal of Mechanics, B/Fluids, 2015, 49, 71-76.	1.2	42
24	The Hydrodynamic Nonlinear Schrödinger Equation: Space and Time. Fluids, 2016, 1, 23.	0.8	41
25	An experimental comparison of velocities underneath focussed breaking waves. Ocean Engineering, 2018, 155, 201-210.	1.9	39
26	“Extraordinary” modulation instability in optics and hydrodynamics. Proceedings of the National Academy of Sciences of the United States of America, 2021, 118, .	3.3	36
27	Phase evolution of Peregrine-like breathers in optics and hydrodynamics. Physical Review E, 2019, 99, 012207.	0.8	35
28	Observation of modulation instability and rogue breathers on stationary periodic waves. Physical Review Research, 2020, 2, .	1.3	34
29	Higher-order rogue wave solutions to the Kadomtsev–Petviashvili 1 equation. Physica D: Nonlinear Phenomena, 2021, 426, 132990.	1.3	32
30	Nonlinear wave evolution with data-driven breaking. Nature Communications, 2022, 13, 2343.	5.8	31
31	Nonconservative higher-order hydrodynamic modulation instability. Physical Review E, 2017, 96, 022219.	0.8	26
32	Spectral up- and downshifting of Akhmediev breathers under wind forcing. Physics of Fluids, 2017, 29, .	1.6	26
33	Observation of rogue wave holes in a water wave tank. Journal of Geophysical Research, 2012, 117, .	3.3	21
34	Predicting ocean rogue waves from point measurements: An experimental study for unidirectional waves. Physical Review E, 2019, 99, 032201.	0.8	21
35	Spectral properties of the Peregrine soliton observed in a water wave tank. Journal of Geophysical Research, 2012, 117, .	3.3	18
36	Breather Rogue Waves in Random Seas. Physical Review Applied, 2018, 9, .	1.5	17

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37	Drifting breathers and Fermiâ€Pastaâ€Ulam paradox for water waves. <i>Wave Motion</i> , 2019, 90, 168-174.	1.0	17
38	Directional soliton and breather beams. <i>Proceedings of the National Academy of Sciences of the United States of America</i> , 2019, 116, 9759-9763.	3.3	17
39	Gray solitons on the surface of water. <i>Physical Review E</i> , 2014, 89, 011002.	0.8	16
40	Dark solitons, modulation instability and breathers in a chain of weakly nonlinear oscillators with cyclic symmetry. <i>Journal of Sound and Vibration</i> , 2018, 413, 467-481.	2.1	15
41	Time-reversal of nonlinear waves: Applicability and limitations. <i>Physical Review Fluids</i> , 2016, 1, .	1.0	15
42	Experiments on higher-order and degenerate Akhmediev breather-type rogue water waves. <i>Journal of Ocean Engineering and Marine Energy</i> , 2017, 3, 385-394.	0.9	12
43	Non-Gaussian properties of second-order wave orbital velocity. <i>Coastal Engineering</i> , 2016, 110, 42-49.	1.7	11
44	Experimental reconstruction of extreme sea waves by time reversal principle. <i>Journal of Fluid Mechanics</i> , 2020, 884, .	1.4	11
45	Stabilization of Unsteady Nonlinear Waves by Phase-Space Manipulation. <i>Physical Review Letters</i> , 2021, 126, 174501.	2.9	11
46	Deep-Water Waves: on the Nonlinear SchrÃ¶dinger Equation and its Solutions. <i>Journal of Theoretical and Applied Mechanics (Bulgaria)</i> , 2013, 43, .	0.6	10
47	The Peregrine Breather on the Zero-Background Limit as the Two-Soliton Degenerate Solution: An Experimental Study. <i>Frontiers in Physics</i> , 2021, 9, .	1.0	9
48	Experiments on uni-directional and nonlinear wave group shoaling. <i>Ocean Dynamics</i> , 2021, 71, 1105.	0.9	8
49	3D Stereo Imaging of Abnormal Waves in a Wave Basin. , 2015, , .		7
50	Hydrodynamic X Waves. <i>Physical Review Letters</i> , 2019, 123, 184501.	2.9	7
51	Stabilization of uni-directional water wave trains over an uneven bottom. <i>Nonlinear Dynamics</i> , 2020, 101, 1131-1145.	2.7	6
52	Phase Domain Walls in Weakly Nonlinear Deep Water Surface Gravity Waves. <i>Physical Review Letters</i> , 2018, 120, 224102.	2.9	5
53	On the Asymmetric Spectral Broadening of a Hydrodynamic Modulated Wave Train in the Optical Regime. <i>Fluids</i> , 2019, 4, 84.	0.8	5
54	Ghost Interaction of Breathers. <i>Frontiers in Physics</i> , 2020, 8, .	1.0	5

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55	Hydrodynamic and Optical Waves: A Common Approach for Unidimensional Propagation. Lecture Notes in Physics, 2016, , 1-22.	0.3	4
56	Experimental Realization of Periodic Deep-Water Wave Envelopes with and without Dissipation. Water Waves, 2020, 2, 113-122.	0.3	4
57	Directional Coherent Wave Group From an Assimilated Non-linear Wavefield. Frontiers in Physics, 2021, 9, .	1.0	4
58	Phase Evolution of the Time- and Space-Like Peregrine Breather in a Laboratory. Fluids, 2021, 6, 308.	0.8	4
59	Hydrodynamic Envelope Solitons and Breathers. Lecture Notes in Physics, 2016, , 55-87.	0.3	3
60	Dissipative solitons in forced cyclic and symmetric structures. Mechanical Systems and Signal Processing, 2019, 117, 280-292.	4.4	3
61	Phase-suppressed hydrodynamics of solitons on constant-background plane wave. Physical Review Fluids, 2020, 5, .	1.0	3
62	Editorial: Peregrine Soliton and Breathers in Wave Physics: Achievements and Perspectives. Frontiers in Physics, 2021, 9, .	1.0	3
63	Galilean-transformed solitons and supercontinuum generation in dispersive media. Physica D: Nonlinear Phenomena, 2022, 439, 133342.	1.3	2
64	The Velocity Field Underneath Linear and Nonlinear Breaking Rogue Waves. , 2016, , .		1
65	Modulation Instability and Extreme Events Beyond Initial Three Wave Systems. , 2016, , .		1
66	Short-Term Prediction of the Sea State Dynamics. Proceedings in Applied Mathematics and Mechanics, 2011, 11, 699-700.	0.2	0
67	Dynamics of Unstable Stokes Waves: A Numerical and Experimental Study. , 2014, , .		0
68	Chapter 12 Time Reversal of Linear and Nonlinear Water Waves. , 2016, , 401-436.		0
69	Drifting Rogue Packets. , 2018, , .		0
70	Theoretical and Experimental Studies of Breather Wave Molecules. , 2019, , .		0
71	A Unifying Framework for Describing Rogue Waves. Physics Magazine, 2019, 12, .	0.1	0
72	Phase Evolution of Peregrine-Like Solitons in Nonlinear Fiber Optics. , 2019, , .		0