Frederic Dias

List of Publications by Year
in descending order

255 papers	9,850 citations	38720 50 h-index	42364 92 g-index
276 all docs	276 docs citations	276 times ranked	4416 citing authors

#	Article	IF	Citations
1	The Peregrine soliton in nonlinear fibre optics. Nature Physics, 2010, 6, 790-795.	6.5	1,166
2	Instabilities, breathers and rogue waves in optics. Nature Photonics, 2014, 8, 755-764.	15.6	739
3	Modulation instability, Akhmediev Breathers and continuous wave supercontinuum generation. Optics Express, 2009, 17, 21497.	1.7	456
4	Observation of Kuznetsov-Ma soliton dynamics in optical fibre. Scientific Reports, 2012, 2, 463.	1.6	345
5	NONLINEAR GRAVITY AND CAPILLARY-GRAVITY WAVES. Annual Review of Fluid Mechanics, 1999, 31, 301-346.	10.8	264
6	A fully non-linear model for three-dimensional overturning waves over an arbitrary bottom. International Journal for Numerical Methods in Fluids, 2001, 35, 829-867.	0.9	230
7	Rogue waves and analogies in optics and oceanography. Nature Reviews Physics, 2019, 1, 675-689.	11.9	215
8	Real world ocean rogue waves explained without the modulational instability. Scientific Reports, 2016, 6, 27715.	1.6	189
9	Real-time measurements of spontaneous breathers and rogue wave events in optical fibre modulation instability. Nature Communications, 2016, 7, 13675.	5.8	175
10	One-dimensional wave turbulence. Physics Reports, 2004, 398, 1-65.	10.3	157
11	Real-time full bandwidth measurement of spectral noise in supercontinuum generation. Scientific Reports, 2012, 2, 882.	1.6	137
12	Gravity-capillary solitary waves in water of infinite depth and related free-surface flows. Journal of Fluid Mechanics, 1992, 240, 549.	1.4	129
13	Numerical modeling of extreme rogue waves generated by directional energy focusing. Wave Motion, 2007, 44, 395-416.	1.0	125
14	Theory of weakly damped free-surface flows: A new formulation based on potential flow solutions. Physics Letters, Section A: General, Atomic and Solid State Physics, 2008, 372, 1297-1302.	0.9	114
15	Collisions and turbulence in optical rogue wave formation. Physics Letters, Section A: General, Atomic and Solid State Physics, 2010, 374, 989-996.	0.9	106
16	Resonant behaviour of an oscillating wave energy converter in a channel. Journal of Fluid Mechanics, 2012, 701, 482-510.	1.4	106
17	Nonlinear effects in the response of a floating ice plate to a moving load. Journal of Fluid Mechanics, 2002, 460, 281-305.	1.4	105
18	Rogue waves â€“ towards a unifying concept?: Discussions and debates. European Physical Journal: Special Topics, 2010, 185, 5-15.	1.2	100

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19	Hydrodynamics of the oscillating wave surge converter in the open ocean. European Journal of Mechanics, B/Fluids, 2013, 41, 1-10.	1.2	99
20	Emergent rogue wave structures and statistics in spontaneous modulation instability. Scientific Reports, 2015, 5, 10380.	1.6	93
21	Wave interaction with an oscillating wave surge converter, Part I: Viscous effects. Ocean Engineering, 2015, 104, 185-203.	1.9	92
22	The nearshore wind and wave energy potential of Ireland: A high resolution assessment of availability and accessibility. Renewable Energy, 2016, 88, 494-516.	4.3	91
23	Bifurcations of solitons and their stability. Physics Reports, 2011, 507, 43-105.	10.3	90
24	Slamming: Recent Progress in the Evaluation of Impact Pressures. Annual Review of Fluid Mechanics, 2018, 50, 243-273.	10.8	89
25	Real time noise and wavelength correlations in octave-spanning supercontinuum generation. Optics Express, 2013, 21, 18452.	1.7	87
26	Measuring currents, ice drift, and waves from space: the Sea surface KInematics Multiscale monitoring (SKIM) concept. Ocean Science, 2018, 14, 337-354.	1.3	87
27	Open channel flows with submerged obstructions. Journal of Fluid Mechanics, 1989, 206, 155-170.	1.4	82
28	The challenging life of wave energy devices at sea: A few points to consider. Renewable and Sustainable Energy Reviews, 2015, 43, 1263-1272.	8.2	80
29	Capillary-gravity solitary waves with damped oscillations. Physica D: Nonlinear Phenomena, 1993, 65, 399-423.	1.3	75
30	Comparison between three-dimensional linear and nonlinear tsunami generation models. Theoretical and Computational Fluid Dynamics, 2007, 21, 245-269.	0.9	73
31	Wave interaction with an Oscillating Wave Surge Converter. Part II: Slamming. Ocean Engineering, 2016, 113, 319-334.	1.9	73
32	How does Oyster work? The simple interpretation of Oyster mathematics. European Journal of Mechanics, B/Fluids, 2014, 47, 124-131.	1.2	72
33	On a unified breaking onset threshold for gravity waves in deep and intermediate depth water. Journal of Fluid Mechanics, 2018, 841, 463-488.	1.4	71
34	Linking Reduced Breaking Crest Speeds to Unsteady Nonlinear Water Wave Group Behavior. Physical Review Letters, 2014, 112, 114502.	2.9	70
35	Probabilistic Tsunami Hazard and Risk Analysis: A Review of Research Gaps. Frontiers in Earth Science, 2021, 9, .	0.8	65
36	Generalised critical free-surface flows. Journal of Engineering Mathematics, 2002, 42, 291-301.	0.6	64

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37	Trapped waves between submerged obstacles. Journal of Fluid Mechanics, 2004, 509, 93-102.	1.4	64
38	A fast method for nonlinear three-dimensional free-surface waves. Proceedings of the Royal Society A: Mathematical, Physical and Engineering Sciences, 2006, 462, 2715-2735.	1.0	64
39	The VOLNA code for the numerical modeling of tsunami waves: Generation, propagation and inundation. European Journal of Mechanics, B/Fluids, 2011, 30, 598-615.	1.2	60
40	Wave turbulence in one-dimensional models. Physica D: Nonlinear Phenomena, 2001, 152-153, 573-619.	1.3	58
41	Water-Waves as a Spatial Dynamical System. Handbook of Mathematical Fluid Dynamics, 2003, 2, 443-499.	0.1	58
42	On the fully-nonlinear shallow-water generalized Serre equations. Physics Letters, Section A: General, Atomic and Solid State Physics, 2010, 374, 1049-1053.	0.9	58
43	Prediction and optimization of wave energy converter arrays using a machine learning approach. Renewable Energy, 2016, 97, 504-517.	4.3	57
44	Relations for a periodic array of flap-type wave energy converters. Applied Ocean Research, 2013, 39, 31-39.	1.8	56
45	Wave-power absorption from a finite array of oscillating wave surge converters. Renewable Energy, 2014, 63, 55-68.	4.3	56
46	Numerical computation of capillaryâ€"gravity interfacial solitary waves. Journal of Fluid Mechanics, 1997, 349, 221-251.	1.4	54
47	Extreme waves induced by strong depth transitions: Fully nonlinear results. Physics of Fluids, 2014, 26, .	1.6	53
48	Forced solitary waves and fronts past submerged obstacles. Chaos, 2005, 15, 037106.	1.0	52
49	Linear theory of wave generation by a moving bottom. Comptes Rendus Mathematique, 2006, 343, 499-504.	0.1	52
50	Direct detection of optical rogue wave energy statistics in supercontinuum generation. Electronics Letters, 2009, 45, 217.	0.5	52
51	Extreme wave events in Ireland: 14 680 BPâ€"2012. Natural Hazards and Earth System Sciences, 2013, 13, 625-648.	1.5	50
52	Viscous potential free-surface flows in a fluid layer of finite depth. Comptes Rendus Mathematique, 2007, 345, 113-118.	0.1	49
53	A long-term nearshore wave hindcast for Ireland: Atlantic and Irish Sea coasts (1979â€"2012). Ocean Dynamics, 2014, 64, 1163-1180.	0.9	48
54	New computational methods in tsunami science. Philosophical Transactions Series A, Mathematical, Physical, and Engineering Sciences, 2015, 373, 20140382.	1.6	48

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55	The numerical computation of freely propagating time-dependent irrotational water waves. Fluid Dynamics Research, 2006, 38, 803-830.	0.6	47
56	Effect of a straight coast on the hydrodynamics and performance of the Oscillating Wave Surge Converter. Ocean Engineering, 2015, 105, 25-32.	1.9	46
57	Caustics and Rogue Waves in an Optical Sea. Scientific Reports, 2015, 5, 12822.	1.6	46
58	Dissipative Boussinesq equations. Comptes Rendus - Mecanique, 2007, 335, 559-583.	2.1	45
59	Energy of tsunami waves generated by bottom motion. Proceedings of the Royal Society A: Mathematical, Physical and Engineering Sciences, 2009, 465, 725-744.	1.0	43
60	Stability of some stationary solutions to the forced KdV equation with one or two bumps. Journal of Engineering Mathematics, 2011, 70, 175-189.	0.6	41
61	Water waves generated by a moving bottom. , 2007, , 65-95.		40
62	Ship waves and Kelvin. Journal of Fluid Mechanics, 2014, 746, 1-4.	1.4	40
63	Conditions for extreme wave runup on a vertical barrier by nonlinear dispersion. Journal of Fluid Mechanics, 2014, 748, 768-788.	1.4	38
64	Statistical emulation of a tsunami model for sensitivity analysis and uncertainty quantification. Natural Hazards and Earth System Sciences, 2012, 12, 2003-2018.	1.5	37
65	Extreme wave runup on a vertical cliff. Geophysical Research Letters, 2013, 40, 3138-3143.	1.5	37
66	Analytical and computational modelling for wave energy systems: the example of oscillating wave surge converters. Acta Mechanica Sinica/Lixue Xuebao, 2017, 33, 647-662.	1.5	37
67	Resonant capillaryâ€“gravity interfacial waves. Journal of Fluid Mechanics, 1994, 265, 303-343.	1.4	35
68	On Hokusai's <i>Great wave off Kanagawa</i> : localization, linearity and a rogue wave in sub-Antarctic waters. Notes and Records of the Royal Society, 2013, 67, 159-164.	0.1	35
69	Incoherent resonant seeding of modulation instability in optical fiber. Optics Letters, 2013, 38, 5338.	1.7	35
70	Computing the Maslov index of solitary waves, Part 1: Hamiltonian systems on a four-dimensional phase space. Physica D: Nonlinear Phenomena, 2009, 238, 1841-1867.	1.3	34
71	Flows emerging from a nozzle and falling under gravity. Journal of Fluid Mechanics, 1990, 213, 465.	1.4	33
72	A Boussinesq system for two-way propagation of interfacial waves. Physica D: Nonlinear Phenomena, 2008, 237, 2365-2389.	1.3	33

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73	Systematic Review Shows That Work Done by Storm Waves Can Be Misinterpreted as Tsunami-Related Because Commonly Used Hydrodynamic Equations Are Flawed. Frontiers in Marine Science, 2020, 7, .	1.2	32
74	Numerical study of generalized interfacial solitary waves. Physics of Fluids, 1999, 11, 1502-1511.	1.6	31
75	Steady Free-surface Flow Past an Uneven Channel Bottom. Theoretical and Computational Fluid Dynamics, 2006, 20, 125-144.	0.9	31
76	Local Run-Up Amplification by Resonant Wave Interactions. Physical Review Letters, 2011, 107, 124502.	2.9	31
77	Statistical emulation of landslide-induced tsunamis at the Rockall Bank, NE Atlantic. Proceedings of the Royal Society A: Mathematical, Physical and Engineering Sciences, 2017, 473, 20170026.	1.0	31
78	How does wave impact generate large boulders? Modelling hydraulic fracture of cliffs and shore platforms. Marine Geology, 2018, 399, 34-46.	0.9	31
79	Interfacial periodic waves of permanent form with free-surface boundary conditions. Journal of Fluid Mechanics, 2001, 437, 325-336.	1.4	30
80	Tsunami generation by dynamic displacement of sea bed due to dip-slip faulting. Mathematics and Computers in Simulation, 2009, 80, 837-848.	2.4	29
81	Extreme events in optics: Challenges of the MANUREVA project. European Physical Journal: Special Topics, 2010, 185, 125-133.	1.2	29
82	Reactive control of wave energy devices â€“ the modelling paradox. Applied Ocean Research, 2021, 109, 102574.	1.8	29
83	Wave farm modelling of oscillating wave surge converters. Proceedings of the Royal Society A: Mathematical, Physical and Engineering Sciences, 2014, 470, 20140118.	1.0	28
84	Catalogue of extreme wave events in Ireland: revised and updated for 14â€‰680 BP to 2017. Natural Hazards and Earth System Sciences, 2018, 18, 729-758.	1.5	28
85	Ideal jet flow in two dimensions. Journal of Fluid Mechanics, 1987, 185, 275-288.	1.4	27
86	The modular concept of the Oscillating Wave Surge Converter. Renewable Energy, 2016, 85, 484-497.	4.3	27
87	Enhancement of the Benjamin-Feir instability with dissipation. Physics of Fluids, 2007, 19, .	1.6	26
88	A two-fluid model for violent aerated flows. Computers and Fluids, 2010, 39, 283-293.	1.3	26
89	On the Modelling of Tsunami Generation and Tsunami Inundation. Procedia IUTAM, 2014, 10, 338-355.	1.2	26
90	Influence of rapid changes in a channel bottom on free-surface flows. IMA Journal of Applied Mathematics, 2007, 73, 254-273.	0.8	25

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91	Can small islands protect nearby coasts from tsunamis? An active experimental design approach. Proceedings of the Royal Society A: Mathematical, Physical and Engineering Sciences, 2014, 470, 20140575.	1.0	25
92	Wave climate projections for Ireland for the end of the 21st century including analysis of <scp>EC</scp>â€Earth winds over the North Atlantic Ocean. International Journal of Climatology, 2016, 36, 4592-4607.	1.5	24
93	Nonlinear bow flows with spray. Journal of Fluid Mechanics, 1993, 255, 91.	1.4	23
94	On the nonlinear stability of solitary wave solutions of the fifth-order Kortewegâ€“de Vries equation. Physics Letters, Section A: General, Atomic and Solid State Physics, 1999, 263, 98-104.	0.9	23
95	Steady three-dimensional water-wave patterns on a finite-depth fluid. Journal of Fluid Mechanics, 2001, 436, 145-175.	1.4	23
96	Large nearshore storm waves off the Irish coast. Scientific Reports, 2019, 9, 15406.	1.6	23
97	On internal fronts. Journal of Fluid Mechanics, 2003, 479, 145-154.	1.4	22
98	Two-layer hydraulic falls over an obstacle. European Journal of Mechanics, B/Fluids, 2004, 23, 879-898.	1.2	22
99	PROGRESS IN FULLY NONLINEAR POTENTIAL FLOW MODELING OF 3D EXTREME OCEAN WAVES. Series on Quality, Reliability and Engineering Statistics, 2010, , 75-128.	0.2	22
100	On the use of the finite fault solution for tsunami generation problems. Theoretical and Computational Fluid Dynamics, 2013, 27, 177-199.	0.9	22
101	Weir flows and waterfalls. Journal of Fluid Mechanics, 1991, 230, 525-539.	1.4	21
102	Hydro-acoustic precursors of gravity waves generated by surface pressure disturbances localised in space and time. Journal of Fluid Mechanics, 2014, 754, 250-262.	1.4	21
103	Characteristics of wave amplitude and currents in South China Sea induced by a virtual extreme tsunami. Journal of Hydrodynamics, 2017, 29, 377-392.	1.3	21
104	On the steady-state resonant acousticâ€“gravityÂwaves. Journal of Fluid Mechanics, 2018, 849, 111-135.	1.4	21
105	Capytaine: a Python-based linear potential flow solver. Journal of Open Source Software, 2019, 4, 1341.	2.0	21
106	Interfacial waves with free-surface boundary conditions: an approach via a model equation. Physica D: Nonlinear Phenomena, 2001, 150, 278-300.	1.3	20
107	Computing the Maslov index of solitary waves, Part 2: Phase space with dimension greater than four. Physica D: Nonlinear Phenomena, 2011, 240, 1334-1344.	1.3	20
108	Emergence of coherent wave groups in deep-water random sea. Physical Review E, 2013, 87, 063001.	0.8	20

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109	The Conformal-mapping Method for Surface Gravity Waves in the Presence of Variable Bathymetry and Mean Current. Procedia IUTAM, 2014, 11, 110-118.	1.2	20
110	A potential flow model with viscous dissipation based on a modified boundary element method. Engineering Analysis With Boundary Elements, 2018, 97, 1-15.	2.0	20
111	Stability of capillaryâ€“gravity interfacial waves between two bounded fluids. Physics of Fluids, 1995, 7, 3013-3027.	1.6	19
112	Numerical Simulation of Wave Interaction With an Oscillating Wave Surge Converter. , 2013, , .		19
113	Solitary-wave loads on a three-dimensional submerged horizontal plate: Numerical computations and comparison with experiments. Physics of Fluids, 2021, 33, .	1.6	19
114	Faster Than Real Time Tsunami Warning with Associated Hazard Uncertainties. Frontiers in Earth Science, 2021, 8, .	0.8	18
115	An efficient fully Lagrangian solver for modeling wave interaction with oscillating wave surge converter. Ocean Engineering, 2021, 236, 109540.	1.9	18
116	Flows over rectangular weirs. Physics of Fluids, 1988, 31, 2071.	1.4	17
117	The 1:2 resonance withO(2) symmetry and its applications in hydrodynamics. Journal of Nonlinear Science, 1995, 5, 105-129.	1.0	17
118	The effect of the induced mean flow on solitary waves in deep water. Journal of Fluid Mechanics, 1998, 355, 317-328.	1.4	17
119	Flap gate farm: From Venice lagoon defense to resonating wave energy production. Part 2: Synchronous response to incident waves in open sea. Applied Ocean Research, 2015, 52, 43-61.	1.8	17
120	Rheological considerations for the modelling of submarine sliding at Rockall Bank, NE Atlantic Ocean. Physics of Fluids, 2018, 30, 030705.	1.6	17
121	The pressure impulse of wave slamming on an oscillating wave energy converter. Journal of Fluids and Structures, 2018, 82, 258-271.	1.5	17
122	Twenty-first century wave climate projections for Ireland and surface winds in the North Atlantic Ocean. Advances in Science and Research, 0, 13, 75-80.	1.0	17
123	Steady twoâ€“layer flows over an obstacle. Philosophical Transactions Series A, Mathematical, Physical, and Engineering Sciences, 2002, 360, 2137-2154.	1.6	16
124	Numerical Simulation of Wave Impact on a Rigid Wall Using a Twoâ€“phase Compressible SPH Method. Procedia IUTAM, 2015, 18, 123-137.	1.2	16
125	Functional emulation of high resolution tsunami modelling over Cascadia. Annals of Applied Statistics, 2018, 12, .	0.5	16
126	Generalized solitary waves and fronts in coupled Kortewegâ€“de Vries systems. Physica D: Nonlinear Phenomena, 2005, 210, 96-117.	1.3	15

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127	Influence of sedimentary layering on tsunami generation. Computer Methods in Applied Mechanics and Engineering, 2010, 199, 1268-1275.	3.4	15
128	The VOLNA-OP2 tsunami code (version 1.5). Geoscientific Model Development, 2018, 11, 4621-4635.	1.3	15
129	Fast computation of the Maslov index for hyperbolic linear systems with periodic coefficients. Journal of Physics A, 2006, 39, 14545-14557.	1.6	14
130	A new model of viscous dissipation for an oscillating wave surge converter. Journal of Engineering Mathematics, 2017, 103, 195-216.	0.6	14
131	Extreme long waves over a varying bathymetry. Journal of Fluid Mechanics, 2019, 878, 481-501.	1.4	14
132	Geometric Aspects of Spatially Periodic Interfacial Waves. Studies in Applied Mathematics, 1994, 93, 93-132.	1.1	13
133	Deep-water internal solitary waves near critical density ratio. Physica D: Nonlinear Phenomena, 2007, 225, 153-168.	1.3	13
134	Extreme Waves in Crossing Sea States. International Journal of Ocean and Coastal Engineering, 2018, 01, .	0.3	13
135	Experimental study on free-surface deformation and forces on a finite submerged plate induced by a solitary wave. Physics of Fluids, 2020, 32, .	1.6	13
136	NAO and extreme ocean states in the Northeast Atlantic Ocean. Advances in Science and Research, 0, 14, 23-33.	1.0	13
137	Motion-resonant modes of large articulated damped oscillators in waves. Journal of Fluids and Structures, 2014, 49, 705-715.	1.5	12
138	An analysis of two-dimensional water waves based on O(2) symmetry. Nonlinear Analysis: Theory, Methods & Applications, 1990, 14, 733-764.	0.6	11
139	Ideal jets falling under gravity. Physics of Fluids A, Fluid Dynamics, 1991, 3, 1711-1717.	1.6	11
140	Impact of a rising stream on a horizontal plate of finite extent. Journal of Fluid Mechanics, 2009, 621, 243-258.	1.4	11
141	Comparison of numerical hindcasted severe waves with Doppler radar measurements in the North Sea. Ocean Dynamics, 2017, 67, 103-115.	0.9	11
142	Capillaryâ€"gravity periodic and solitary waves. Physics of Fluids, 1994, 6, 2239-2241.	1.6	10
143	Spatial bifurcations of interfacial waves when the phase and group velocities are nearly equal. Journal of Fluid Mechanics, 1995, 295, 121.	1.4	10
144	On the Transition from Twoâ€Dimensional to Threeâ€Dimensional Water Waves. Studies in Applied Mathematics, 2000, 104, 91-127.	1.1	10

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145	On satisfying the radiation condition in free-surface flows. Journal of Fluid Mechanics, 2009, 624, 179-189.	1.4	10
146	Modified shock velocity in heterogeneous wetted foams in the strong shock limit. Physics of Plasmas, 2010, 17, .	0.7	10
147	Wave Power Extraction by an Oscillating Wave Surge Converter in Random Seas. , 2013, , .		10
148	Storm Waves May Be the Source of Some â€œTsunamiâ€•Coastal Boulder Deposits. Geophysical Research Letters, 2021, 48, e2020GL090775.	1.5	10
149	DYNAMICS OF TSUNAMI WAVES. , 2007, , 201-224.		10
150	A steady breaking wave. Physics of Fluids A, Fluid Dynamics, 1993, 5, 277-279.	1.6	9
151	Will oscillating wave surge converters survive tsunamis?. Theoretical and Applied Mechanics Letters, 2015, 5, 160-166.	1.3	9
152	Spatial Bayesian hierarchical modelling of extreme sea states. Ocean Modelling, 2016, 107, 1-13.	1.0	9
153	Uncertainties in the 2004 Sumatraâ€"Andaman source through nonlinear stochastic inversion of tsunami waves. Proceedings of the Royal Society A: Mathematical, Physical and Engineering Sciences, 2017, 473, 20170353.	1.0	9
154	Analysis of the pressure at a vertical barrier due to extreme wave run-up over variable bathymetry. Theoretical and Applied Mechanics Letters, 2017, 7, 269-275.	1.3	9
155	The Peregrine Breather on the Zero-Background Limit as the Two-Soliton Degenerate Solution: An Experimental Study. Frontiers in Physics, 2021, 9, .	1.0	9
156	Case study of the winter 2013/2014 extreme wave events off the west coast of Ireland. Advances in Science and Research, 0, 15, 145-157.	1.0	9
157	Kolmogorov spectra of weak turbulence in media with two types of interacting waves. Physics Letters, Section A: General, Atomic and Solid State Physics, 2001, 291, 139-145.	0.9	8
158	On the Maslov index of multi-pulse homoclinic orbits. Proceedings of the Royal Society A: Mathematical, Physical and Engineering Sciences, 2009, 465, 2897-2910.	1.0	8
159	Impact of a falling jet. Journal of Fluid Mechanics, 2010, 657, 22-35.	1.4	8
160	A Detailed Investigation of the Nearshore Wave Climate and the Nearshore Wave Energy Resource on the West Coast of Ireland. , 2013, , .		8
161	Pressure induced by the interaction of water waves with nearly equal frequencies and nearly opposite directions. Theoretical and Applied Mechanics Letters, 2017, 7, 138-144.	1.3	8
162	Wave breaking and runup of long waves approaching a cliff over a variable bathymetry. Procedia IUTAM, 2017, 25, 18-27.	1.2	8

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163	Gravity flows with a free surface of finite extent. European Journal of Mechanics, B/Fluids, 1998, 17, 19-31.	1.2	7
164	Potential-flow studies of steady two-dimensional jets, waterfalls, weirs and sprays. Journal of Engineering Mathematics, 2011, 70, 165-174.	0.6	7
165	The Future Wave Climate of Ireland: From Averages to Extremes. Procedia IUTAM, 2015, 17, 40-46.	1.2	7
166	Influence of Computed Wave Spectra on Statistical Wave Properties. Journal of Marine Science and Engineering, 2020, 8, 1023.	1.2	7
167	The Thirdâ€Harmonic Resonance for Capillaryâ€Gravity Waves with O(2) Spatial Symmetry. Studies in Applied Mathematics, 1990, 82, 13-35.	1.1	6
168	Collapse of solitary waves near the transition from supercritical to subcritical bifurcations. JETP Letters, 2008, 87, 667-671.	0.4	6
169	Shock propagation in regular wetted arrays of fibers. Shock Waves, 2013, 23, 81-89.	1.0	6
170	Numerical Simulation of an Oscillating Wave Surge Converter. , 2013, , .		6
171	The Vertical Distribution and Evolution of Slam Pressure on an Oscillating Wave Surge Converter. , 2015, , .		6
172	Hydrodynamic Modelling Competition: Overview and Approaches. , 2015, , .		6
173	Tsunami Generation Above a Sill. Pure and Applied Geophysics, 2015, 172, 985-1002.	0.8	6
174	Performance analysis of Volna-OP2 â€“ massively parallel code for tsunami modelling. Computers and Fluids, 2020, 209, 104649.	1.3	6
175	An adaptive discontinuous Galerkin method for the simulation of hurricane storm surge. Ocean Dynamics, 2020, 70, 641-666.	0.9	6
176	Sensitivity analysis of wind input parametrizations in the WAVEWATCH III spectral wave model using the ST6 source term package for Ireland. Applied Ocean Research, 2021, 115, 102826.	1.8	6
177	Application of a Moving Particle Semi-Implicit Numerical Wave Flume (MPS-NWF) to model design waves. Coastal Engineering, 2022, 172, 104066.	1.7	6
178	An Experimental Study of the Hydrodynamic Effects of Marine Growth on Wave Energy Converters. , 2013, , .		5
179	Run-up amplification of transient long waves. Quarterly of Applied Mathematics, 2015, 73, 177-199.	0.5	5
180	Far-Field Maximal Power Absorption of a Bulging Cylindrical Wave Energy Converter. Energies, 2020, 13, 5499.	1.6	5

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181	Finite-amplitude steady-state resonant waves in a circular basin. Journal of Fluid Mechanics, 2021, 915, .	1.4	5
182	Numerical Study of Wave Slamming on an Oscillating Flap. , 2014, , .		4
183	Microfluidics in Microstructure Optical Fibers: Heat Flux and Pressure-driven and Other Flows. Procedia IUTAM, 2014, 11, 23-33.	1.2	4
184	Wall pressure and vorticity in the intermittently turbulent regime of the Stokes boundary layer. Journal of Fluid Mechanics, 2018, 851, 479-506.	1.4	4
185	Potential flow over a submerged rectangular obstacle: Consequences for initiation of boulder motion. European Journal of Applied Mathematics, 2020, 31, 646-681.	1.4	4
186	A local model for the limiting configuration of interfacial solitary waves. Journal of Fluid Mechanics, 2021, 921, .	1.4	4
187	Local Analysis of Wave Fields Produced From Hindcasted Rogue Wave Sea States. , 2015, , .		4
188	Performance Enhancement of the Oscillating Wave Surge Converter by a Breakwater. Journal of Ocean and Wind Energy, 2015, 2, .	0.7	4
189	Teleconnections and Extreme Ocean States in the Northeast Atlantic Ocean. Advances in Science and Research, 0, 16, 11-29.	1.0	4
190	On explicit solutions of the free-surface Euler equations in the presence of gravity. Physics of Fluids, 1997, 9, 2828-2834.	1.6	3
191	Numerical Study of Three Dimensional Effects of Wave Impact on an Oscillating Wave Surge Converter. , 2015, , .		3
192	Spatial Variability of Extreme Sea States on the Irish West Coast. , 2015, , .		3
193	Using the Floating Body Symmetries to Speed Up the Numerical Computation of Hydrodynamics Coefficients With Nemoh. , 2018, , .		3
194	A Cost-Effective Method for Modelling Wave-OWSC Interaction. International Journal of Offshore and Polar Engineering, 2017, 27, 366-373.	0.3	3
195	Current interaction in large-scale wave models with an application to Ireland. Continental Shelf Research, 2022, 245, 104798.	0.9	3
196	Free-surface flows with two stagnation points. Journal of Fluid Mechanics, 1996, 324, 393-406.	1.4	2
197	Flow Filling a Curved Pipe. Journal of Fluids Engineering, Transactions of the ASME, 2001, 123, 686-691.	0.8	2
198	Three-Dimensional Numerical Model for Fully Nonlinear Waves Over Arbitrary Bottom. , 2002, , 1072.		2

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199	Bifurcations and stability of internal solitary waves. JETP Letters, 2006, 83, 201-205.	0.4	2
200	Simulation of Free Surface Compressible Flows via a Two Fluid Model. , 2008, , .		2
201	Analytical studies of modulation instability and nonlinear compression dynamics in optical fiber propagation. Proceedings of SPIE, 2011, , .	0.8	2
202	Rogue Waves. Lecture Notes Series, Institute for Mathematical Sciences, 2011, , 295-307.	0.2	2
203	Shock velocity increase due to a heterogeneity produced by a two-gas layer. Physical Review E, 2012, 85, 066307.	0.8	2
204	On weakly nonlinear gravityâ€“capillary solitary waves. Wave Motion, 2012, 49, 221-237.	1.0	2
205	Pressure Fluctuations on a Vertical Wall During Extreme Run-Up Cycles. , 2014, , .		2
206	Violent flows in aqueous foam II: Simulation platform and results. European Journal of Mechanics, B/Fluids, 2015, 54, 105-124.	1.2	2
207	Incorporating Wave Spectrum Information in Real-time Free-surface Elevation Forecasting: Real-sea Experiments. IFAC-PapersOnLine, 2018, 51, 232-237.	0.5	2
208	Performance of WAVEWATCH-III and SWAN Models in the North Sea. , 2018, , .		2
209	Computational model of simultaneous wave and sea current loads on tidal turbines. Ocean Engineering, 2019, 184, 323-331.	1.9	2
210	Modelling with Volna-OP2â€"Towards Tsunami Threat Reduction for the Irish Coastline. Geosciences (Switzerland), 2020, 10, 226.	1.0	2
211	Weakly Nonlinear Wave Packets and the Nonlinear SchrÃ¶dinger Equation. , 2005, , 29-67.		2
212	Breaking-wave induced pressure and acceleration on a clifftop boulder. Journal of Fluid Mechanics, 2021, 929, .	1.4	2
213	Wave scattering by a three-dimensional submerged horizontal rectangular plate in a channel: experiments and numerical computations. Journal of Fluid Mechanics, 2022, 935, .	1.4	2
214	Nonlinear freeâ€surface flows past a submerged inclined flat plate. Physics of Fluids A, Fluid Dynamics, 1991, 3, 2995-3000.	1.6	1
215	Amplitude des oscillations d'ondes solitaires gÃ©nÃ©ralisÃ©es. Comptes Rendus Mathematique, 2003, 337, 137-142.	0.1	1
216	Modulation instability, Akhmediev breathers, and rogue waves in nonlinear fiber optics. Proceedings of SPIE, 2010, , .	0.8	1

#	Article	IF	Citations
217	Peregrine soliton in optical fiber-based systems. , 2011, , .		1
218	Mathematical Modelling of a Flap-Type Wave Energy Converter. , 2013, , .		1
219	Oscillating Wave Surge Converters: Interactions in a Wave Farm. , 2014, , .		1
220	A Machine Learning Approach to the Analysis of Wave Energy Converters. , 2015, , .		1
221	Kuznetsov-Ma Soliton Dynamics in Nonlinear Fiber Optics. , 2012, , .		1
222	Theoretical and applied considerations in depth-integrated currents for third-generation wave models. AIP Advances, 2022, 12, 015017.	0.6	1
223	Discussion of â€œ Waveâ€Induced Pressure Under Gravity Structure â€•by Philip L.â€F. Liu (January, 1985, Vol.) Tj ETQq1 1 0.784314 rg	0.5	0
224	The effects of wave-induced seepage on an impervious breakwater with an extended foundation base. Coastal Engineering, 1990, 14, 417-437.	1.7	0
225	Critical states and minima for an energy with secondâ€“order gradients. Proceedings of the Royal Society A: Mathematical, Physical and Engineering Sciences, 2000, 456, 97-124.	1.0	0
226	Numerical Modeling of Fully Nonlinear 3D Overturning Waves over Arbitrary Bottom. , 2001, , 417.		0
227	Experimental characterization of optical rogue waves in the femtosecond regime. , 2009, , .		0
228	Rogue waves and extreme events in nonlinear ultrafast optics. , 2009, , .		0
229	The dynamics of a developing CW supercontinuum: analytical predictions and experiments. , 2010, , .		0
230	Supercontinuum to solitons: New nonlinear structures in fiber propagation. , 2010, , .		0
231	Akhmediev Breather dynamics and the nonlinear modulation instability spectrum. Proceedings of SPIE, 2010, , .	0.8	0
232	Collisions and emergence of optical rogue solitons. , 2010, , .		0
233	Optical rogue waves and localized structures in nonlinear fiber optics. , 2011, , .		0
234	Rediscovered dynamics of nonlinear fiber optics: from breathers to extreme localisation. , 2011, , .		0

#	Article	IF	Citations
235	From rogue waves to random walks: Nonlinear instabilities in supercontinuum generation. , 2012, , .		0
236	Real time spectra and wavelength correlation maps: New insights into octave-spanning supercontinuum generation and rogue waves. , 2013, , .		0
237	Dispersive time stretching measurements of real-time spectra and statistics for supercontinuum generation around 1550 nm. , 2013, , .		0
238	Controlling modulation instability using an incoherent low amplitude seed. , 2014, , .		0
239	Rogue Wave Structures in Spontaneous Modulation Instability. , 2014, , .		0
240	Microfluidics flow and heat transfer in microstructured fibers of circular and elliptical geometry. , 2015, , 3-27.		0
241	Dynamics of Rogue Wave and Soliton Emergence in Spontaneous Modulation Instability. , 2015, , .		0
242	Real Time Measurements of Temporal Rogue Waves and Spontaneous Modulation Instability in Optical Fiber. , 2016, , .		0
243	Effect of Wave-Current Interaction on Strong Tidal Current. , 2018, , .		0
244	Long Wave Run-Up Resonance in a Multi-Reflection System. Applied Sciences (Switzerland), 2020, 10, 6172.	1.3	0
245	Waves Due to a Steadily Moving Load on a Floating Ice Plate. Fluid Mechanics and Its Applications, 2001, , 229-236.	0.1	0
246	Rogue Waves in Optics. , 2009, , .		0
247	How Does Sedimentary Layering Affect the Generation of Tsunamis?. , 2009, , .		0
248	Collisions in optical rogue wave formation. , 2010, , .		0
249	Optical Rogue Waves: Physics and Impact. , 2011, , .		0
250	Direct Measurement of Temporal Rogue Waves Generated by Spontaneous Modulation Instability. , 2016, , .		0
251	Real-Time Measurements of Ultrafast Spontaneous Modulation Instability in Optical Fiber. , 2017, , .		0
252	MULTI-PRONGED INVESTIGATION USES COASTAL BOULDER DEPOSITS TO UNDERSTAND STORM WAVE AMPLIFICATION ALONG STEEP SHORELINES. , 2018, , .		0

#	Article	IF	Citations
253	Wave Energy Extraction by the End of the Century: Impact of the North Atlantic Oscillation. , 2018, , .		0
254	Bifurcations of capillary-gravity interfacial waves. , 1995, , 67-76.		0
255	Automated Approaches for Capturing Localized Tsunami Responseâ€"Application to the French Coastlines. Journal of Geophysical Research: Oceans, 2022, 127, .	1.0	0