Paul A Milewski

List of Publications by Year
in descending order

77	1,667	236925	330143
papers	citations	25 h-index	37 g-index

78	78	78	789
all docs	docs citations	times ranked	citing authors

#	Article	IF	Citations
1	A new first-principles model to predict mild and deep surge for a centrifugal compressor. Energy, 2022, 244, 123050.	8.8	6
2	Capillary-scale solid rebounds: experiments, modelling and simulations. Journal of Fluid Mechanics, 2021, 912, .	3.4	10
3	Development and Validation of a Model for Centrifugal Compressors in Reversed Flow Regimes. Journal of Turbomachinery, 2021, 143, .	1.7	5
4	Complete absorption of topologically protected waves. Physical Review E, 2021, 104, 014603.	2.1	4
5	Capillaryâ€gravity solitary waves on water of finite depth interacting with a linear shear current. Studies in Applied Mathematics, 2021, 147, 1036-1057.	2.4	4
6	On the structure of steady parasitic gravity-capillary waves in the small surface tension limit. Journal of Fluid Mechanics, 2021, 922, .	3.4	5
7	Strongly nonlinear effects on internal solitary waves in three-layer flows. Journal of Fluid Mechanics, 2020, 883, .	3.4	25
8	Nonlinear stability of two-layer shallow water flows with a free surface. Proceedings of the Royal Society A: Mathematical, Physical and Engineering Sciences, 2020, 476, 20190594.	2.1	1
9	Faraday pilot-wave dynamics in a circular corral. Journal of Fluid Mechanics, 2020, 891, .	3.4	24
10	Modeling Axisymmetric Centrifugal Compressor Characteristics From First Principles. Journal of Turbomachinery, 2020, 142, .	1.7	5
11	Nonlinear hydroelastic waves on a linear shear current at finite depth. Journal of Fluid Mechanics, 2019, 876, 55-86.	3.4	9
12	Magnetic nanoparticles in a nematic channel: A one-dimensional study. Physical Review E, 2019, 100, 012703.	2.1	10
13	Quasi-normal free-surface impacts, capillary rebounds and application to Faraday walkers. Journal of Fluid Mechanics, 2019, 873, 856-888.	3.4	14
14	Threeâ€layer flows in the shallow water limit. Studies in Applied Mathematics, 2019, 142, 487.	2.4	3
15	Rotational waves generated by currentâ€topography interaction. Studies in Applied Mathematics, 2019, 142, 433-464.	2.4	23
16	Hydroelastic solitary waves with constant vorticity. Wave Motion, 2019, 85, 84-97.	2.0	7
17	Stability of periodic traveling flexuralâ€gravity waves in two dimensions. Studies in Applied Mathematics, 2019, 142, 65-90.	2.4	11
18	Dynamics of fully nonlinear capillaryâ€“gravity solitary waves under normal electric fields. Journal of Engineering Mathematics, 2018, 108, 107-122.	1.2	17

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19	Introduction to focus issue on hydrodynamic quantum analogs. Chaos, 2018, 28, 096001.	2.5	31
20	Dynamics, emergent statistics, and the mean-pilot-wave potential of walking droplets. Chaos, 2018, 28, 096108.	2.5	26
21	Solitary flexuralâ€“gravity waves in three dimensions. Philosophical Transactions Series A, Mathematical, Physical, and Engineering Sciences, 2018, 376, 20170345.	3.4	10
22	Flow structure beneath rotational water waves with stagnation points. Journal of Fluid Mechanics, 2017, 812, 792-814.	3.4	48
23	Faraday waveâ€“droplet dynamics: discrete-timeÂanalysis. Journal of Fluid Mechanics, 2017, 821, 296-329.	3.4	52
24	Non-wetting impact of a sphere onto a bath and its application to bouncing droplets. Journal of Fluid Mechanics, 2017, 826, 97-127.	3.4	21
25	Tunneling with a hydrodynamic pilot-wave model. Physical Review Fluids, 2017, 2, .	2.5	42
26	Self-focusing dynamics of patches of ripples. Physica D: Nonlinear Phenomena, 2016, 333, 235-242.	2.8	3
27	Front Propagation at the Nematic-Isotropic Transition Temperature. SIAM Journal on Applied Mathematics, 2016, 76, 1296-1320.	1.8	9
28	Faraday pilot-wave dynamics: modelling and computation. Journal of Fluid Mechanics, 2015, 778, 361-388.	3.4	67
29	Conservation law modelling of entrainment in layered hydrostatic flows. Journal of Fluid Mechanics, 2015, 772, 272-294.	3.4	11
30	Correcting CDOM fluorescence measurements for temperature effects under field conditions in freshwaters. Limnology and Oceanography: Methods, 2014, 12, 23-24.	2.0	9
31	Numerical study of interfacial solitary waves propagating under an elastic sheet. Proceedings of the Royal Society A: Mathematical, Physical and Engineering Sciences, 2014, 470, 20140111.	2.1	19
32	Asymmetric gravityâ€“capillary solitary waves on deep water. Journal of Fluid Mechanics, 2014, 759, .	3.4	18
33	Transversally periodic solitary gravityâ€“capillary waves. Proceedings of the Royal Society A: Mathematical, Physical and Engineering Sciences, 2014, 470, 20130537.	2.1	12
34	A Model for Strongly Nonlinear Long Interfacial Waves with Background Shear. Studies in Applied Mathematics, 2014, 133, 182-213.	2.4	5
35	Computation of Three-dimensional Flexural-gravity Solitary Waves in Arbitrary Depth. Procedia IUTAM, 2014, 11, 119-129.	1.2	7
36	Three Dimensional Flexuralâ€“Gravity Waves. Studies in Applied Mathematics, 2013, 131, 135-148.	2.4	30

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37	Steady dark solitary flexural gravity waves. Proceedings of the Royal Society A: Mathematical, Physical and Engineering Sciences, 2013, 469, 20120485.	2.1	13
38	Finite volume and pseudo-spectral schemes for the fully nonlinear 1D Serre equations. European Journal of Applied Mathematics, 2013, 24, 761-787.	2.9	57
39	Two-dimensional flexural-gravity waves of finite amplitude in deep water. IMA Journal of Applied Mathematics, 2013, 78, 750-761.	1.6	32
40	Dynamics of gravityâ€“capillary solitary waves in deep water. Journal of Fluid Mechanics, 2012, 708, 480-501.	3.4	31
41	The Stability of Largeâ€Amplitude Shallow Interfacial Nonâ€Boussinesq Flows. Studies in Applied Mathematics, 2012, 128, 40-58.	2.4	22
42	On weakly nonlinear gravityâ€“capillary solitary waves. Wave Motion, 2012, 49, 221-237.	2.0	2
43	A temperature compensation method for CDOM fluorescence sensors in freshwater. Limnology and Oceanography: Methods, 2011, 9, 296-301.	2.0	94
44	The volcano effect in bacterial chemotaxis. Mathematical and Computer Modelling, 2011, 53, 1374-1388.	2.0	16
45	The diurnal cycle and the meridional extent of the tropics. Physica D: Nonlinear Phenomena, 2011, 240, 233-240.	2.8	1
46	Hydroelastic solitary waves in deep water. Journal of Fluid Mechanics, 2011, 679, 628-640.	3.4	66
47	Dynamics of steep two-dimensional gravityâ€“capillary solitary waves. Journal of Fluid Mechanics, 2010, 664, 466-477.	3.4	61
48	On the fully-nonlinear shallow-water generalized Serre equations. Physics Letters, Section A: General, Atomic and Solid State Physics, 2010, 374, 1049-1053.	2.1	58
49	Dynamics of Three-Dimensional Gravity-Capillary Solitary Waves in Deep Water. SIAM Journal on Applied Mathematics, 2010, 70, 2390-2408.	1.8	32
50	Shear instability for stratified hydrostatic flows. Communications on Pure and Applied Mathematics, 2009, 62, 183-197.	3.1	21
51	Stability Properties and Nonlinear Mappings of Two and Threeâ€Layer Stratified Flows. Studies in Applied Mathematics, 2009, 122, 123-137.	2.4	26
52	A Model Equation for Wavepacket Solitary Waves Arising from Capillaryâ€Gravity Flows. Studies in Applied Mathematics, 2009, 122, 249-274.	2.4	46
53	Mixing Closures for Conservation Laws in Stratified Flows. Studies in Applied Mathematics, 2008, 121, 89-116.	2.4	9
54	Model Equations for Gravityâ€Capillary Waves in Deep Water. Studies in Applied Mathematics, 2008, 121, 49-69.	2.4	18

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55	Resonant Wave Interactions in the Equatorial Waveguide. Journals of the Atmospheric Sciences, 2008, 65, 3398-3418.	1.7	22
56	A simple model for biological aggregation with asymmetric sensing. Communications in Mathematical Sciences, 2008, 6, 397-416.	1.0	21
57	A stability result for solitary waves in nonlinear dispersive equations. Communications in Mathematical Sciences, 2008, 6, 791-797.	1.0	5
58	Nonequilibrium statistics of a reduced model for energy transfer in waves. Communications on Pure and Applied Mathematics, 2007, 60, 439-461.	3.1	5
59	EVOLUTION OF PERIODICITY IN PERIODICAL CICADAS. Ecology, 2005, 86, 3200-3211.	3.2	22
60	Three-dimensional Localized Solitary Gravity-Capillary Waves. Communications in Mathematical Sciences, 2005, 3, 89-99.	1.0	33
61	Nonlinear Stability of two-layer flows. Communications in Mathematical Sciences, 2004, 2, 427-442.	1.0	36
62	Long Nonlinear Waves in Resonance with Topography. Studies in Applied Mathematics, 2003, 110, 21-47.	2.4	3
63	Simulation of Wave Interactions and Turbulence in One-Dimensional Water Waves. SIAM Journal on Applied Mathematics, 2003, 63, 1121-1140.	1.8	18
64	Resonant Wave Interaction with Random Forcing and Dissipation. Studies in Applied Mathematics, 2002, 108, 123-144.	2.4	10
65	Breaking and merging of liquid sheets and filaments. Journal of Engineering Mathematics, 2002, 42, 283-290.	1.2	8
66	Merging and wetting driven by surface tension. European Journal of Mechanics, B/Fluids, 2000, 19, 491-502.	2.5	25
67	The Generation and Evolution of Lump Solitary Waves in Surface-Tension-Dominated Flows. SIAM Journal on Applied Mathematics, 2000, 61, 731-750.	1.8	52
68	Time dependent gravity-capillary flows past an obstacle. Wave Motion, 1999, 29, 63-79.	2.0	28
69	A reduced model for nonlinear dispersive waves in a rotating environment. Geophysical and Astrophysical Fluid Dynamics, 1999, 90, 139-159.	1.2	4
70	A PseudoSpectral Procedure for the Solution of Nonlinear Wave Equations with Examples from Free-Surface Flows. SIAM Journal of Scientific Computing, 1999, 21, 1102-1114.	2.8	60
71	Modulated two-dimensional patterns in reactionâ€“diffusion systems. European Journal of Applied Mathematics, 1999, 10, 157-184.	2.9	8
72	A Formulation for Water Waves over Topography. Studies in Applied Mathematics, 1998, 100, 95-106.	2.4	15

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73	Singularities on Free Surfaces of Fluid Flows. Studies in Applied Mathematics, 1998, 100, 245-267.	2.4	3
74	Long wave interaction over varying topography. Physica D: Nonlinear Phenomena, 1998, 123, 36-47.	2.8	16
75	Threeâ€Dimensional Water Waves. Studies in Applied Mathematics, 1996, 97, 149-166.	2.4	50
76	Resonant Interactions between Vortical Flows and Water Waves. Part II: Shallow Water. Studies in Applied Mathematics, 1995, 94, 225-256.	2.4	7
77	Resonant Interactions between Vortical Flows and Water Waves. Part I: Deep Water. Studies in Applied Mathematics, 1995, 94, 131-167.	2.4	8