Mark Blyth

List of Publications by Year in descending order

65 papers	994 citations	471509 17 h-index	454955 30 g-index
65 all docs	65 docs citations	65 times ranked	624 citing authors

#	Article	IF	Citations
1	Stability of waves on fluid of infinite depth with constant vorticity. Journal of Fluid Mechanics, 2022, 936, .	3.4	4
2	The deformation of an elastic cell in a circulatory fluid motion. Wave Motion, 2022, 113, 102995.	2.0	2
3	Termination points and homoclinic glueing for a class of inhomogeneous nonlinear ordinary differential equations. Nonlinearity, 2021, 34, 532-561.	1.4	0
4	Instabilities at a sheared interface over a liquid laden with soluble surfactant. Journal of Engineering Mathematics, 2021, 129, 1.	1.2	1
5	Aeciospore ejection in the rust pathogen Puccinia graminis is driven by moisture ingress. Communications Biology, 2021, 4, 1216.	4.4	4
6	A model of an inflatable elastic aerofoil. Journal of Engineering Mathematics, 2021, 131, 1.	1.2	0
7	Nonlinear dynamics of two-layer channel flow with soluble surfactant below or above the critical micelle concentration. Journal of Fluid Mechanics, 2020, 900, .	3.4	4
8	Microfluidics for pharmaceutical nanoparticle fabrication: The truth and the myth. International Journal of Pharmaceutics, 2020, 584, 119408.	5.2	72
9	The Nonlocal Ablowitz–Fokas–Musslimani Water-Wave Method for Cylindrical Geometry. SIAM Journal on Applied Mathematics, 2019, 79, 743-753.	1.8	0
10	The role of soluble surfactants in the linear stability of two-layer flow in a channel. Journal of Fluid Mechanics, 2019, 873, 18-48.	3.4	11
11	How water flow, geometry, and material properties drive plant movements. Journal of Experimental Botany, 2019, 70, 3549-3560.	4.8	17
12	Oxygen uptake and denitrification in soil aggregates. Acta Mechanica, 2018, 229, 595-612.	2.1	6
13	Generalized Contour Dynamics: A Review. Regular and Chaotic Dynamics, 2018, 23, 507-518.	0.8	4
14	Two-dimensional pulse dynamics and the formation of bound states on electrified fallingÂfilms. Journal of Fluid Mechanics, 2018, 855, 210-235.	3.4	10
15	Continuation methods for time-periodic travelling-wave solutions to evolution equations. Applied Mathematics Letters, 2018, 86, 291-297.	2.7	4
16	On the critical free-surface flow over localisedÂtopography. Journal of Fluid Mechanics, 2017, 832, 73-96.	3.4	8
17	The stability of capillary waves on fluid sheets. Journal of Fluid Mechanics, 2016, 806, 5-34.	3.4	8
18	Inertialess multilayer film flow with surfactant: Stability and traveling waves. Physical Review Fluids, 2016, 1, .	2.5	7

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19	Steady free-surface flow over spatially periodic topography. Journal of Fluid Mechanics, 2015, 781, .	3.4	3
20	Flow in a slowly tapering channel with oscillating walls. Acta Mechanica, 2015, 226, 1167-1181.	2.1	0
21	Experimental investigation of hysteresis in the break-up of liquid curtains. Chemical Engineering Science, 2014, 117, 248-263.	3.8	15
22	Multi-layer film flow down an inclined plane: experimental investigation. Experiments in Fluids, 2014, 55, 1.	2.4	5
23	Solitary waves on a ferrofluid jet. Journal of Fluid Mechanics, 2014, 750, 401-420.	3.4	14
24	Stability of film flow over inclined topography based on a long-wave nonlinear model. Journal of Fluid Mechanics, 2013, 729, 638-671.	3.4	45
25	Stability of surfactant-laden coreâ€“annular flow and rodâ€“annular flow to non-axisymmetric modes. Journal of Fluid Mechanics, 2013, 716, .	3.4	7
26	Deformation of an elastic cell in a uniform stream and in a circulatory flow. IMA Journal of Applied Mathematics, 2013, 78, 665-684.	1.6	2
27	Flow of a liquid layer over heated topography. Proceedings of the Royal Society A: Mathematical, Physical and Engineering Sciences, 2012, 468, 4067-4087.	2.1	8
28	Electrified free-surface flow of an inviscid liquid past topography. Physics of Fluids, 2012, 24, .	4.0	6
29	Using surfactants to stabilize two-phase pipe flows of coreâ€“annular type. Journal of Fluid Mechanics, 2012, 704, 333-359.	3.4	20
30	Oscillatory oblique stagnation-point flow towards a plane wall. Acta Mechanica, 2012, 223, 449-461.	2.1	0
31	Hydroelastic waves on fluid sheets. Journal of Fluid Mechanics, 2011, 689, 541-551.	3.4	20
32	Electrified film flow over step topography at zero Reynolds number: an analytical and computational study. Journal of Engineering Mathematics, 2011, 69, 169-183.	1.2	12
33	Motion of a two-dimensional elastic capsule in a branching channel flow. Journal of Fluid Mechanics, 2011, 669, 3-31.	3.4	29
34	Electrified falling-film flow over topography in the presence of a finite electrode. Journal of Engineering Mathematics, 2010, 68, 339-353.	1.2	10
35	Nonlinear development of two-layer Couetteâ€“Poiseuille flow in the presence of surfactant. Physics of Fluids, 2010, 22, .	4.0	20
36	Axisymmetric flow of two fluids in a pulsating pipe. Journal of Engineering Mathematics, 2009, 63, 135-151.	1.2	0

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37	Effect of inertia on electrified film flow over a wavy wall. Journal of Engineering Mathematics, 2009, 65, 229-242.	1.2	14
38	Viscous Electrified Film Flow over Step Topography. SIAM Journal on Applied Mathematics, 2009, 70, 845-865.	1.8	13
39	Two-layer flow in a corrugated channel. Journal of Engineering Mathematics, 2008, 60, 127-147.	1.2	16
40	Effect of an electric field on the stability of contaminated film flow down an inclined plane. Journal of Fluid Mechanics, 2008, 595, 221-237.	3.4	20
41	A note on oblique stagnation-point flow. Physics of Fluids, 2008, 20, .	4.0	43
42	Effect of an electric field on film flow down a corrugated wall at zero Reynolds number. Physics of Fluids, 2008, 20, .	4.0	37
43	Electrified viscous thin film flow over topography. Journal of Fluid Mechanics, 2008, 597, 449-475.	3.4	60
44	Particle encapsulation due to thread breakup in Stokes flow. Journal of Fluid Mechanics, 2008, 617, 141-166.	3.4	6
45	Unsteady axisymmetric stagnation flow on a circular cylinder. Quarterly Journal of Mechanics and Applied Mathematics, 2007, 60, 125-138.	1.3	3
46	91.54 Did Kepler know this?. Mathematical Gazette, 2007, 91, 332-334.	0.0	2
47	Stokes flow through a single-screw extruder. AICHE Journal, 2007, 53, 69-77.	3.6	3
48	Surfactantâ€driven instability in twoâ€fluid pipe and channel flows. Proceedings in Applied Mathematics and Mechanics, 2007, 7, 1100601-1100602.	0.2	1
49	Free-surface film flow over topography under electric fields. Proceedings in Applied Mathematics and Mechanics, 2007, 7, 2100043-2100044.	0.2	0
50	A comparison of interpolation grids over the triangle or the tetrahedron. Journal of Engineering Mathematics, 2007, 56, 263-272.	1.2	12
51	Effect of pulsations on two-layer channel flow. Journal of Engineering Mathematics, 2007, 59, 123-137.	1.2	5
52	A comparative study of the boundary and finite element methods for the Helmholtz equation in two dimensions. Engineering Analysis With Boundary Elements, 2007, 31, 35-49.	3.7	11
53	A Lobatto interpolation grid over the triangle. IMA Journal of Applied Mathematics, 2006, 71, 153-169.	1.6	47
54	Stability of axisymmetric coreâ€“annular flow in the presence of an insoluble surfactant. Journal of Fluid Mechanics, 2006, 548, 207.	3.4	37

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55	Effect of pulsations on the stability of a gas column. Theoretical and Computational Fluid Dynamics, 2005, 19, 23-37.	2.2	3
56	Stagnation-point flow against a liquid film on a plane wall. Acta Mechanica, 2005, 180, 203-219.	2.1	34
57	New solutions for capillary waves on curved sheets of fluid. IMA Journal of Applied Mathematics, 2005, 70, 588-601.	1.6	7
58	Effect of stretching on interfacial stability. Acta Mechanica, 2004, 170, 149.	2.1	5
59	Effect of inertia on the Marangoni instability of two-layer channel flow, Part II: normal-mode analysis. Journal of Engineering Mathematics, 2004, 50, 329-341.	1.2	32
60	Evolution Equations for the Surface Concentration of an Insoluble Surfactant; Applications to the Stability of an Elongating Thread and a Stretched Interface. Theoretical and Computational Fluid Dynamics, 2004, 17, 147-164.	2.2	26
61	Solution space of axisymmetric capsules enclosed by elastic membranes. European Journal of Mechanics, A/Solids, 2004, 23, 877-892.	3.7	14
62	Effect of surfactant on the stability of film flow down an inclined plane. Journal of Fluid Mechanics, 2004, 521, 241-250.	3.4	80
63	Effect of surfactants on the stability of two-layer channel flow. Journal of Fluid Mechanics, 2004, 505, 59-86.	3.4	65
64	New solutions for capillary waves on fluid sheets. Journal of Fluid Mechanics, 2004, 507, 255-264.	3.4	13
65	Oscillatory Flow Near a Stagnation Point. SIAM Journal on Applied Mathematics, 2003, 63, 1604-1614.	1.8	7