# Mark Blyth

## List of Publications by Year in descending order



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|---|---|---|---|
| 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 | Effect of surfactant on the stability of film flow down an inclined plane. Journal of Fluid Mechanics, 2004, 521, 241-250. | 3.4 | 80 |
| 2 | Microfluidics for pharmaceutical nanoparticle fabrication: The truth and the myth. International Journal of Pharmaceutics, 2020, 584, 119408. | 5.2 | 72 |
| 3 | Effect of surfactants on the stability of two-layer channel flow. Journal of Fluid Mechanics, 2004, 505, 59-86. | 3.4 | 65 |
| 4 | Electrified viscous thin film flow over topography. Journal of Fluid Mechanics, 2008, 597, 449-475. | 3.4 | 60 |
| 5 | A Lobatto interpolation grid over the triangle. IMA Journal of Applied Mathematics, 2006, 71, 153-169. | 1.6 | 47 |
| 6 | 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 |
| 7 | A note on oblique stagnation-point flow. Physics of Fluids, 2008, 20, . | 4.0 | 43 |
| 8 | Stability of axisymmetric coreâ€“annular flow in the presence of an insoluble surfactant. Journal of Fluid Mechanics, 2006, 548, 207. | 3.4 | 37 |
| 9 | Effect of an electric field on film flow down a corrugated wall at zero Reynolds number. Physics of Fluids, 2008, 20, . | 4.0 | 37 |
| 10 | Stagnation-point flow against a liquid film on a plane wall. Acta Mechanica, 2005, 180, 203-219. | 2.1 | 34 |
| 11 | 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 |
| 12 | Motion of a two-dimensional elastic capsule in a branching channel flow. Journal of Fluid Mechanics, 2011, 669, 3-31. | 3.4 | 29 |
| 13 | 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 |
| 14 | 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 |
| 15 | Nonlinear development of two-layer Couetteâ€“Poiseuille flow in the presence of surfactant. Physics of Fluids, 2010, 22, . | 4.0 | 20 |
| 16 | Hydroelastic waves on fluid sheets. Journal of Fluid Mechanics, 2011, 689, 541-551. | 3.4 | 20 |
| 17 | Using surfactants to stabilize two-phase pipe flows of coreâ€“annular type. Journal of Fluid Mechanics, 2012, 704, 333-359. | 3.4 | 20 |
| 18 | How water flow, geometry, and material properties drive plant movements. Journal of Experimental Botany, 2019, 70, 3549-3560. | 4.8 | 17 |

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|---|---|---|---|
| 19 | Two-layer flow in a corrugated channel. Journal of Engineering Mathematics, 2008, 60, 127-147. | 1.2 | 16 |
| 20 | Experimental investigation of hysteresis in the break-up of liquid curtains. Chemical Engineering Science, 2014, 117, 248-263. | 3.8 | 15 |
| 21 | Solution space of axisymmetric capsules enclosed by elastic membranes. European Journal of Mechanics, A/Solids, 2004, 23, 877-892. | 3.7 | 14 |
| 22 | Effect of inertia on electrified film flow over a wavy wall. Journal of Engineering Mathematics, 2009, 65, 229-242. | 1.2 | 14 |
| 23 | Solitary waves on a ferrofluid jet. Journal of Fluid Mechanics, 2014, 750, 401-420. | 3.4 | 14 |
| 24 | New solutions for capillary waves on fluid sheets. Journal of Fluid Mechanics, 2004, 507, 255-264. | 3.4 | 13 |
| 25 | Viscous Electrified Film Flow over Step Topography. SIAM Journal on Applied Mathematics, 2009, 70, 845-865. | 1.8 | 13 |
| 26 | A comparison of interpolation grids over the triangle or the tetrahedron. Journal of Engineering Mathematics, 2007, 56, 263-272. | 1.2 | 12 |
| 27 | 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 |
| 28 | 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 |
| 29 | 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 |
| 30 | Electrified falling-film flow over topography in the presence of a finite electrode. Journal of Engineering Mathematics, 2010, 68, 339-353. | 1.2 | 10 |
| 31 | Two-dimensional pulse dynamics and the formation of bound states on electrified fallingÂfilms. Journal of Fluid Mechanics, 2018, 855, 210-235. | 3.4 | 10 |
| 32 | 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 |
| 33 | The stability of capillary waves on fluid sheets. Journal of Fluid Mechanics, 2016, 806, 5-34. | 3.4 | 8 |
| 34 | On the critical free-surface flow over localisedÂtopography. Journal of Fluid Mechanics, 2017, 832, 73-96. | 3.4 | 8 |
| 35 | Oscillatory Flow Near a Stagnation Point. SIAM Journal on Applied Mathematics, 2003, 63, 1604-1614. | 1.8 | 7 |
| 36 | New solutions for capillary waves on curved sheets of fluid. IMA Journal of Applied Mathematics, 2005, 70, 588-601. | 1.6 | 7 |

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|---|---|---|---|
| 37 | Stability of surfactant-laden coreâ€“annular flow and rodâ€“annular flow to non-axisymmetric modes. Journal of Fluid Mechanics, 2013, 716, . | 3.4 | 7 |
| 38 | Inertialess multilayer film flow with surfactant: Stability and traveling waves. Physical Review Fluids, 2016, 1, . | 2.5 | 7 |
| 39 | Particle encapsulation due to thread breakup in Stokes flow. Journal of Fluid Mechanics, 2008, 617, 141-166. | 3.4 | 6 |
| 40 | Electrified free-surface flow of an inviscid liquid past topography. Physics of Fluids, 2012, 24, . | 4.0 | 6 |
| 41 | Oxygen uptake and denitrification in soil aggregates. Acta Mechanica, 2018, 229, 595-612. | 2.1 | 6 |
| 42 | Effect of stretching on interfacial stability. Acta Mechanica, 2004, 170, 149. | 2.1 | 5 |
| 43 | Effect of pulsations on two-layer channel flow. Journal of Engineering Mathematics, 2007, 59, 123-137. | 1.2 | 5 |
| 44 | Multi-layer film flow down an inclined plane: experimental investigation. Experiments in Fluids, 2014, 55, 1. | 2.4 | 5 |
| 45 | Generalized Contour Dynamics: A Review. Regular and Chaotic Dynamics, 2018, 23, 507-518. | 0.8 | 4 |
| 46 | Continuation methods for time-periodic travelling-wave solutions to evolution equations. Applied Mathematics Letters, 2018, 86, 291-297. | 2.7 | 4 |
| 47 | 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 |
| 48 | Aeciospore ejection in the rust pathogen Puccinia graminis is driven by moisture ingress. Communications Biology, 2021, 4, 1216. | 4.4 | 4 |
| 49 | Stability of waves on fluid of infinite depth with constant vorticity. Journal of Fluid Mechanics, 2022, 936, . | 3.4 | 4 |
| 50 | Effect of pulsations on the stability of a gas column. Theoretical and Computational Fluid Dynamics, 2005, 19, 23-37. | 2.2 | 3 |
| 51 | Unsteady axisymmetric stagnation flow on a circular cylinder. Quarterly Journal of Mechanics and Applied Mathematics, 2007, 60, 125-138. | 1.3 | 3 |
| 52 | Stokes flow through a single-screw extruder. AICHE Journal, 2007, 53, 69-77. | 3.6 | 3 |
| 53 | Steady free-surface flow over spatially periodic topography. Journal of Fluid Mechanics, 2015, 781, . | 3.4 | 3 |
| 54 | 91.54 Did Kepler know this?. Mathematical Gazette, 2007, 91, 332-334. | 0.0 | 2 |

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|---|---|---|---|
| 55 | 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 |
| 56 | The deformation of an elastic cell in a circulatory fluid motion. Wave Motion, 2022, 113, 102995. | 2.0 | 2 |
| 57 | Surfactantâ€driven instability in twoâ€fluid pipe and channel flows. Proceedings in Applied Mathematics and Mechanics, 2007, 7, 1100601-1100602. | 0.2 | 1 |
| 58 | Instabilities at a sheared interface over a liquid laden with soluble surfactant. Journal of Engineering Mathematics, 2021, 129, 1. | 1.2 | 1 |
| 59 | Free-surface film flow over topography under electric fields. Proceedings in Applied Mathematics and Mechanics, 2007, 7, 2100043-2100044. | 0.2 | 0 |
| 60 | Axisymmetric flow of two fluids in a pulsating pipe. Journal of Engineering Mathematics, 2009, 63, 135-151. | 1.2 | 0 |
| 61 | Oscillatory oblique stagnation-point flow towards a plane wall. Acta Mechanica, 2012, 223, 449-461. | 2.1 | 0 |
| 62 | Flow in a slowly tapering channel with oscillating walls. Acta Mechanica, 2015, 226, 1167-1181. | 2.1 | 0 |
| 63 | The Nonlocal Ablowitz–Fokas–Musslimani Water-Wave Method for Cylindrical Geometry. SIAM Journal on Applied Mathematics, 2019, 79, 743-753. | 1.8 | 0 |
| 64 | Termination points and homoclinic glueing for a class of inhomogeneous nonlinear ordinary differential equations. Nonlinearity, 2021, 34, 532-561. | 1.4 | 0 |
| 65 | A model of an inflatable elastic aerofoil. Journal of Engineering Mathematics, 2021, 131, 1. | 1.2 | 0 |