Andrew Hazel

List of Publications by Year
in descending order

60 papers	2,593 citations	304368 22 h-index	189595 50 g-index
60 all docs	60 docs citations	60 times ranked	2473 citing authors

#	Article	IF	Citations
1	The effect of isolated ridges and grooves on static menisci in rectangular channels. Journal of Fluid Mechanics, 2022, 935, .	1.4	1
2	The life and fate of a bubble in a geometrically perturbed Hele-Shaw channel. Journal of Fluid Mechanics, 2021, 914, .	1.4	9
3	Modelling finger propagation in elasto-rigid channels. Journal of Fluid Mechanics, 2021, 916, .	1.4	5
4	Spatio-temporal symmetry breaking in the flow past an oscillating cylinder. Journal of Fluid Mechanics, 2021, 918, .	1.4	3
5	A microstructural model of tendon failure. Journal of the Mechanical Behavior of Biomedical Materials, 2021, 122, 104665.	1.5	8
6	Improving the modified XFEM for optimal highâ€order approximation. International Journal for Numerical Methods in Engineering, 2020, 121, 411-433.	1.5	4
7	POLED displays: Robust printing of pixels. Applied Physics Letters, 2019, 115, .	1.5	5
8	The influence of invariant solutions on the transient behaviour of an air bubble in a Hele-Shaw channel. Proceedings of the Royal Society A: Mathematical, Physical and Engineering Sciences, 2019, 475, 20190434.	1.0	5
9	Spatial and Temporal Adaptivity in Numerical Studies of Instabilities, with Applications to Fluid Flows. Computational Methods in Applied Sciences (Springer), 2019, , 75-115.	0.1	0
10	On the Feasibility of Automated Mechanical Ventilation Control Through EIT. IEEE Transactions on Biomedical Engineering, 2018, 65, 2459-2470.	2.5	5
11	Bubble propagation in Hele-Shaw channels with centred constrictions. Fluid Dynamics Research, 2018, 50, 021403.	0.6	11
12	On the multiple solutions of coating and rimming flows on rotating cylinders. Journal of Fluid Mechanics, 2018, 835, 540-574.	1.4	29
13	Sequential deposition of microdroplets on patterned surfaces. Soft Matter, 2018, 14, 8709-8716.	1.2	9
14	Topological fluid mechanics of the formation of the KÃ¡rmÃ¡n-vortex street. Journal of Fluid Mechanics, 2017, 812, 199-221.	1.4	22
15	Reopening modes of a collapsed elasto-rigid channel. Journal of Fluid Mechanics, 2017, 819, 121-146.	1.4	15
16	On the buckling of elastic rings by external confinement. Philosophical Transactions Series A, Mathematical, Physical, and Engineering Sciences, 2017, 375, 20160227.	1.6	18
17	Stochastic dynamics of resistive switching: fluctuations lead to optimal particle number. New Journal of Physics, 2017, 19, 093007.	1.2	3
18	Viscous fingering and dendritic growth under an elastic membrane. Journal of Fluid Mechanics, 2017, 826, .	1.4	18

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19	On the buckling of an elastic holey column. Proceedings of the Royal Society A: Mathematical, Physical and Engineering Sciences, 2017, 473, 20170477.	1.0	21
20	Bubble propagation on a rail: a concept for sorting bubbles by size. Soft Matter, 2017, 13, 8684-8697.	1.2	7
21	Controlling droplet spreading with topography. Physical Review Fluids, 2017, 2, .	1.0	17
22	Discussion: â€œComparison of Statistical Methods for Assessing Spatial Correlations Between Maps of Different Arterial Propertiesâ€•(Rowland, E. M., Mohamied, Y., Chooi, K. Y., Bailey, E. L., and Weinberg, P.) Tj ETQq0 0 0 rgBT /Overlock 10 Local Hemodynamics. Journal of Biomechanical Engineering, 2016, 138, .	0.6	0
23	Sensitivity of Saffmanâ€“Taylor fingers to channel-depth perturbations. Journal of Fluid Mechanics, 2016, 794, 343-368.	1.4	24
24	Buckling of a holey column. Soft Matter, 2016, 12, 7112-7118.	1.2	16
25	The trapping in high-shear regions of slender bacteria undergoing chemotaxis in a channel. Journal of Fluid Mechanics, 2015, 771, .	1.4	44
26	CHAPTER 8. Flow in Flexible/Collapsible Tubes. RSC Soft Matter, 2015, , 280-312.	0.2	3
27	Geometry-induced Oscillations of Finite Bubbles in Microchannels. Procedia IUTAM, 2014, 11, 81-88.	1.2	6
28	Numerical Bifurcation Methods and their Application to Fluid Dynamics: Analysis beyond Simulation. Communications in Computational Physics, 2014, 15, 1-45.	0.7	136
29	Sequential deposition of overlapping droplets to form a liquid line. Journal of Fluid Mechanics, 2014, 761, 261-281.	1.4	28
30	Multiple finger propagation modes in Hele-Shaw channels of variable depth. Journal of Fluid Mechanics, 2014, 746, 123-164.	1.4	26
31	Multiple states of finger propagation in partially occluded tubes. Physics of Fluids, 2013, 25, .	1.6	10
32	Oscillatory bubbles induced by geometrical constraint. Physics of Fluids, 2012, 24, .	1.6	19
33	On the liquid lining in fluid-conveying curved tubes. Journal of Fluid Mechanics, 2012, 705, 213-233.	1.4	9
34	Homogenization methods to approximate the effective response of random fibre-reinforced Composites. International Journal of Solids and Structures, 2012, 49, 1421-1433.	1.3	21
35	Fluid-Structure Interaction in Internal Physiological Flows. Annual Review of Fluid Mechanics, 2011, 43, 141-162.	10.8	162
36	The spatial distribution of gyrotactic swimming micro-organisms in laminar flow fields. Journal of Fluid Mechanics, 2011, 680, 602-635.	1.4	50

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37	The Jefferyâ€“Hamel similarity solution and its relation to flow in a diverging channel. Journal of Fluid Mechanics, 2011, 687, 404-430.	1.4	20
38	Unsteady flow in a rotating torus after a sudden change in rotation rate. Journal of Fluid Mechanics, 2011, 688, 88-119.	1.4	12
39	A partial differential equation system for modelling stochastic storage in physical systems with applications to wind power generation. IMA Journal of Management Mathematics, 2011, 22, 231-252.	1.1	9
40	Tube geometry can force switchlike transitions in the behavior of propagating bubbles. Physics of Fluids, 2009, 21, .	1.6	20
41	Solvers for large-displacement fluidâ€“structure interaction problems: segregated versus monolithic approaches. Computational Mechanics, 2008, 43, 91-101.	2.2	224
42	The mechanics of airway closure. Respiratory Physiology and Neurobiology, 2008, 163, 214-221.	0.7	89
43	The influence of gravity on the steady propagation of a semi-infinite bubble into a flexible channel. Physics of Fluids, 2008, 20, .	1.6	12
44	The steady propagation of an air finger into a rectangular tube. Journal of Fluid Mechanics, 2008, 614, 173-195.	1.4	46
45	Scaling Properties of Coating Flows in Rectangular Channels. Physical Review Letters, 2007, 99, 234501.	2.9	30
46	Use of different exhaled nitric oxide multiple flow rate models in COPD. European Respiratory Journal, 2007, 29, 651-659.	3.1	48
47	Midplane-symmetry breaking in the flow between two counter-rotating disks. Journal of Engineering Mathematics, 2007, 57, 273-288.	0.6	8
48	Finite-Reynolds-Number Effects in Steady, Three-Dimensional Airway Reopening. Journal of Biomechanical Engineering, 2006, 128, 573-578.	0.6	11
49	oomph-lib â€“ An Object-Oriented Multi-Physics Finite-Element Library. , 2006, , 19-49.		95
50	Surface-tension-induced buckling of liquid-lined elastic tubes: a model for pulmonary airway closure. Proceedings of the Royal Society A: Mathematical, Physical and Engineering Sciences, 2005, 461, 1847-1868.	1.0	40
51	Spatial comparison between wall shear stress measures and porcine arterial endothelial permeability. American Journal of Physiology - Heart and Circulatory Physiology, 2004, 286, H1916-H1922.	1.5	394
52	Mass transfer from a finite strip near an oscillating stagnation point â€“ implications for atherogenesis. Journal of Engineering Mathematics, 2003, 47, 315-334.	0.6	2
53	Steady finite-Reynolds-number flows in three-dimensional collapsible tubes. Journal of Fluid Mechanics, 2003, 486, 79-103.	1.4	65
54	Three-dimensional airway reopening: the steady propagation of a semi-infinite bubble into a buckled elastic tube. Journal of Fluid Mechanics, 2003, 478, 47-70.	1.4	60

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55	Modeling the Adaptive Permeability Response of Porcine Iliac Arteries to Acute Changes in Mural Shear. Annals of Biomedical Engineering, 2003, 31, 412-419.	1.3	5
56	The steady propagation of a semi-infinite bubble into a tube of elliptical or rectangular cross-section. Journal of Fluid Mechanics, 2002, 470, 91-114.	1.4	135
57	Method for Assessing the Need for Case-Specific Hemodynamics: Application to the Distribution of Vascular Permeability. Annals of Biomedical Engineering, 2000, 28, 1300-1306.	1.3	5
58	Vascular Endothelial Cells Minimize the Total Force on Their Nuclei. Biophysical Journal, 2000, 78, 47-54.	0.2	56
59	Effects of Size and Shape (Aspect Ratio) on the Hemodynamics of Saccular Aneurysms: A Possible Index for Surgical Treatment of Intracranial Aneurysms. Neurosurgery, 1999, 45, 119-130.	0.6	308
60	Effects of Size and Shape (Aspect Ratio) on the Hemodynamics of Saccular Aneurysms: A Possible Index for Surgical Treatment of Intracranial Aneurysms. Neurosurgery, 1999, 45, 119.	0.6	130