

# A E Hosoi

## List of Publications by Year in descending order

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52  
papers

2,905  
citations

257450

24  
h-index

189892

50  
g-index

52  
all docs

52  
docs citations

52  
times ranked

2602  
citing authors

#	ARTICLE	IF	CITATIONS
1	New measures for characterizing nonlinear viscoelasticity in large amplitude oscillatory shear. <i>Journal of Rheology</i> , 2008, 52, 1427-1458.	2.6	787
2	Rheological fingerprinting of gastropod pedal mucus and synthetic complex fluids for biomimicking adhesive locomotion. <i>Soft Matter</i> , 2007, 3, 634.	2.7	192
3	Optimal Stroke Patterns for Purcell's Three-Link Swimmer. <i>Physical Review Letters</i> , 2007, 98, 068105.	7.8	166
4	Marangoni convection in droplets on superhydrophobic surfaces. <i>Journal of Fluid Mechanics</i> , 2009, 624, 101-123.	3.4	149
5	Experimental investigations of elastic tail propulsion at low Reynolds number. <i>Physics of Fluids</i> , 2006, 18, 091701.	4.0	148
6	Building a better snail: Lubrication and adhesive locomotion. <i>Physics of Fluids</i> , 2005, 17, 113101.	4.0	116
7	The effect of surface tension on rimming flows in a partially filled rotating cylinder. <i>Journal of Fluid Mechanics</i> , 2003, 479, 65-98.	3.4	97
8	An experimental investigation of the stability of the circular hydraulic jump. <i>Journal of Fluid Mechanics</i> , 2006, 558, 33.	3.4	97
9	Soft Swimming: Exploiting Deformable Interfaces for Low Reynolds Number Locomotion. <i>Physical Review Letters</i> , 2008, 101, 048102.	7.8	90
10	Axial instability of a free-surface front in a partially filled horizontal rotating cylinder. <i>Physics of Fluids</i> , 1999, 11, 97-106.	4.0	87
11	Evaporative instabilities in climbing films. <i>Journal of Fluid Mechanics</i> , 2001, 442, 217-239.	3.4	81
12	Optimal feeding and swimming gaits of biflagellated organisms. <i>Proceedings of the National Academy of Sciences of the United States of America</i> , 2011, 108, 1001-1006.	7.1	80
13	Peeling, Healing, and Bursting in a Lubricated Elastic Sheet. <i>Physical Review Letters</i> , 2004, 93, 137802.	7.8	78
14	Theory for Shock Dynamics in Particle-Laden Thin Films. <i>Physical Review Letters</i> , 2005, 94, 117803.	7.8	67
15	Nonlinear viscoelastic biomaterials: meaningful characterization and engineering inspiration. <i>Integrative and Comparative Biology</i> , 2009, 49, 40-50.	2.0	67
16	Shock Solutions for Particle-Laden Thin Films. <i>SIAM Journal on Applied Mathematics</i> , 2008, 68, 760-783.	1.8	43
17	Optimal kinematics and morphologies for spermatozoa. <i>Physical Review E</i> , 2011, 83, 045303.	2.1	41
18	Thin films in partial wetting: stability, dewetting and coarsening. <i>Journal of Fluid Mechanics</i> , 2018, 845, 642-681.	3.4	41

#	ARTICLE	IF	CITATIONS
19	A two-dimensional model of low-Reynolds number swimming beneath a free surface. <i>Journal of Fluid Mechanics</i> , 2011, 681, 24-47.	3.4	40
20	Tuning gastropod locomotion: Modeling the influence of mucus rheology on the cost of crawling. <i>Physics of Fluids</i> , 2006, 18, 113102.	4.0	37
21	Controllable adhesion using field-activated fluids. <i>Physics of Fluids</i> , 2011, 23, .	4.0	37
22	Nonlinear flow response of soft hair beds. <i>Nature Physics</i> , 2017, 13, 1014-1019.	16.7	37
23	Crawling beneath the free surface: Water snail locomotion. <i>Physics of Fluids</i> , 2008, 20, .	4.0	35
24	Experimental study of gravitation effects in the flow of a particle-laden thin film on an inclined plane. <i>Physics of Fluids</i> , 2009, 21, .	4.0	32
25	Periodic Knolls and Valleys: Coexistence of Solid and Liquid States in Granular Suspensions. <i>Physical Review Letters</i> , 2004, 92, 224502.	7.8	22
26	Structure evolution in electrorheological fluids flowing through microchannels. <i>Soft Matter</i> , 2013, 9, 2889.	2.7	22
27	Mechanical Devices for Snail-like Locomotion. <i>Journal of Intelligent Material Systems and Structures</i> , 2007, 18, 111-116.	2.5	20
28	Viscous entrainment on hairy surfaces. <i>Physical Review Fluids</i> , 2018, 3, .	2.5	19
29	Confinement-induced stabilization of the Rayleigh-Taylor instability and transition to the unconfined limit. <i>Science Advances</i> , 2020, 6, .	10.3	18
30	Flagellar waveform dynamics of freely swimming algal cells. <i>Physical Review E</i> , 2013, 88, 013015.	2.1	17
31	Air entrainment in hairy surfaces. <i>Physical Review Fluids</i> , 2016, 1, .	2.5	15
32	An Ontology for Large Amplitude Oscillatory Shear Flow. <i>AIP Conference Proceedings</i> , 2008, , .	0.4	13
33	Lubrication in a corner. <i>Journal of Fluid Mechanics</i> , 2005, 544, 353.	3.4	12
34	Drag kings: characterizing large-scale flows in cycling aerodynamics. <i>Journal of Fluid Mechanics</i> , 2014, 748, 1-4.	3.4	12
35	Shape optimization of a sheet swimming over a thin liquid layer. <i>Journal of Fluid Mechanics</i> , 2008, 601, 25-61.	3.4	11
36	Flagellar kinematics reveals the role of environment in shaping sperm motility. <i>Journal of the Royal Society Interface</i> , 2020, 17, 20200525.	3.4	10

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37	Layer formation in monodispersive suspensions and colloids. <i>Journal of Fluid Mechanics</i> , 1996, 328, 297-311.	3.4	9
38	Spinodal decomposition in particle-laden Landau-Levich flow. <i>Physics of Fluids</i> , 2012, 24, .	4.0	9
39	Drop impact on hairy surfaces. <i>Physical Review Fluids</i> , 2019, 4, .	2.5	9
40	Pulling bubbles from a bath. <i>Physics of Fluids</i> , 2010, 22, 061705.	4.0	7
41	Fluid flow in the sarcomere. <i>Archives of Biochemistry and Biophysics</i> , 2021, 706, 108923.	3.0	6
42	Corner flow in free liquid films. <i>Journal of Engineering Mathematics</i> , 2004, 50, 267-288.	1.2	4
43	Mechanical Aspects of Biological Locomotion. <i>Experimental Mechanics</i> , 2010, 50, 1259-1261.	2.0	4
44	Marine crustaceans with hairy appendages: Role of hydrodynamic boundary layers in sensing and feeding. <i>Physical Review Fluids</i> , 2019, 4, .	2.5	4
45	Estimating the filtration efficacy of cloth masks. <i>Physical Review Fluids</i> , 2021, 6, .	2.5	4
46	Coarsening and solidification via solvent-annealing in thin liquid films. <i>Journal of Fluid Mechanics</i> , 2013, 723, 69-90.	3.4	3
47	Corrsin lecture on hairy hydrodynamics. <i>Physical Review Fluids</i> , 2019, 4, .	2.5	3
48	Tuning nanoscopic self-assembly of diblock copolymer blends on a two-dimensional interface. <i>Journal of Polymer Science, Part B: Polymer Physics</i> , 2011, 49, 136-143.	2.1	2
49	Self-similar kinematics among efficient slender swimmers. <i>Journal of Fluid Mechanics</i> , 2018, 840, 106-130.	3.4	2
50	Public health implications of opening National Football League stadiums during the COVID-19 pandemic. <i>Proceedings of the National Academy of Sciences of the United States of America</i> , 2022, 119, e2114226119.	7.1	2
51	Starting Problems in Mechanical Engineering. , 2018, , .		1
52	Instabilities and Taylor dispersion in isothermal binary thin fluid films. <i>Physics of Fluids</i> , 2008, 20, 102103.	4.0	0