James E Sprittles

List of Publications by Year in Descending Order

43 papers	918 citations	15 h-index	29 g-index
51 ext. papers	1,133 ext. citations	4.1 avg, IF	4.96 L-index

#	Paper	IF	Citations
43	Application of microfluidic systems in modelling impacts of environmental structure on stress-sensing by individual microbial cells.. *Computational and Structural Biotechnology Journal*, **2022**, 20, 128-138	6.8	
42	Stability of similarity solutions of viscous thread pinch-off. *Physical Review Fluids*, **2021**, 6,	2.8	2
41	Evaporation from arbitrary nanoporous membrane configurations: An effective evaporation coefficient approach. *Physics of Fluids*, **2021**, 33, 032022	4.4	4
40	Efficient simulation of non-classical liquid vapour phase-transition flows: a method of fundamental solutions. *Journal of Fluid Mechanics*, **2021**, 919,	3.7	2
39	Relaxation of Thermal Capillary Waves for Nanoscale Liquid Films on Anisotropic-Slip Substrates. *Langmuir*, **2021**, 37, 8667-8676	4	0
38	Bouncing off the Walls: The Influence of Gas-Kinetic and van der Waals Effects in Drop Impact. *Physical Review Letters*, **2020**, 124, 084501	7.4	10
37	Dynamics of liquid nanothreads: Fluctuation-driven instability and rupture. *Physical Review Fluids*, **2020**, 5,	2.8	7
36	Velocity distribution function of spontaneously evaporating atoms. *Physical Review Fluids*, **2020**, 5,	2.8	5
35	A computational study of fluctuating viscoelastic forces on trapped interfaces in porous media. *European Journal of Mechanics, B/Fluids*, **2020**, 84, 496-506	2.4	
34	Nanoscale thin-film flows with thermal fluctuations and slip. *Physical Review E*, **2020**, 102, 053105	2.4	6
33	Molecular physics of jumping nanodroplets. *Nanoscale*, **2020**, 12, 20631-20637	7.7	4
32	Comment on Applying a second-kind boundary integral equation for surface tractions in Stokes flow *Journal of Computational Physics*, **2020**, 401, 109007	4.1	0
31	Revisiting the Rayleigh Plateau instability for the nanoscale. *Journal of Fluid Mechanics*, **2019**, 861,	3.7	24
30	Thermophoresis of a spherical particle: modelling through moment-based, macroscopic transport equations. *Journal of Fluid Mechanics*, **2019**, 862, 312-347	3.7	6
29	Droplet Coalescence is Initiated by Thermal Motion. *Physical Review Letters*, **2019**, 122, 104501	7.4	35
28	Molecular simulation of thin liquid films: Thermal fluctuations and instability. *Physical Review E*, **2019**, 100, 023108	2.4	11
27	Lifetime of a Nanodroplet: Kinetic Effects and Regime Transitions. *Physical Review Letters*, **2019**, 123, 154501	7.4	8

26	Numerical investigation of nanoporous evaporation using direct simulation Monte Carlo. *Physical Review Fluids*, **2019**, 4,	2.8	10
25	Dynamic drying transition via free-surface cusps. *Journal of Fluid Mechanics*, **2019**, 858, 760-786	3.7	5
24	Evaporation-driven vapour microflows: analytical solutions from moment methods. *Journal of Fluid Mechanics*, **2018**, 841, 962-988	3.7	5
23	Mean-field kinetic theory approach to evaporation of a binary liquid into vacuum. *Physical Review Fluids*, **2018**, 3,	2.8	21
22	Kinetic Effects in Dynamic Wetting. *Physical Review Letters*, **2017**, 118, 114502	7.4	31
21	Fundamental solutions to the regularised 13-moment equations: efficient computation of three-dimensional kinetic effects. *Journal of Fluid Mechanics*, **2017**, 833,	3.7	8
20	Capillary breakup of a liquid bridge: identifying regimes and transitions. *Journal of Fluid Mechanics*, **2016**, 797, 29-59	3.7	50
19	Dynamic measurements and simulations of airborne picolitre-droplet coalescence in holographic optical tweezers. *Journal of Chemical Physics*, **2016**, 145, 054502	3.9	24
18	The formation of a bubble from a submerged orifice. *European Journal of Mechanics, B/Fluids*, **2015**, 53, 24-36	2.4	35
17	Air entrainment in dynamic wetting: Knudsen effects and the influence of ambient air pressure. *Journal of Fluid Mechanics*, **2015**, 769, 444-481	3.7	21
16	How coalescing droplets jump. *ACS Nano*, **2014**, 8, 10352-62	16.7	239
15	The coalescence of liquid drops in a viscous fluid: interface formation model. *Journal of Fluid Mechanics*, **2014**, 751, 480-499	3.7	11
14	A parametric study of the coalescence of liquid drops in a viscous gas. *Journal of Fluid Mechanics*, **2014**, 753, 279-306	3.7	17
13	Dynamics of liquid drops coalescing in the inertial regime. *Physical Review E*, **2014**, 89, 063008	2.4	15
12	Dynamic contact angle of a liquid spreading on an unsaturated wettable porous substrate. *Journal of Fluid Mechanics*, **2013**, 715, 273-282	3.7	8
11	Finite element simulation of dynamic wetting flows as an interface formation process. *Journal of Computational Physics*, **2013**, 233, 34-65	4.1	36
10	Drop spreading and penetration into pre-wetted powders. *Powder Technology*, **2013**, 239, 128-136	5.2	30
9	Finite element framework for describing dynamic wetting phenomena. *International Journal for Numerical Methods in Fluids*, **2012**, 68, 1257-1298	1.9	42

8	Wetting front dynamics in an isotropic porous medium. *Journal of Fluid Mechanics*, **2012**, 694, 399-407	3.7	11
7	Coalescence of liquid drops: Different models versus experiment. *Physics of Fluids*, **2012**, 24, 122105	4.4	82
6	Anomalous dynamics of capillary rise in porous media. *Physical Review E*, **2012**, 86, 016306	2.4	7
5	The dynamics of liquid drops and their interaction with solids of varying wettabilities. *Physics of Fluids*, **2012**, 24, 082001	4.4	41
4	Viscous flow in domains with corners: Numerical artifacts, their origin and removal. *Computer Methods in Applied Mechanics and Engineering*, **2011**, 200, 1087-1099	5.7	12
3	Viscous flows in corner regions: Singularities and hidden eigensolutions. *International Journal for Numerical Methods in Fluids*, **2011**, 65, 372-382	1.9	7
2	A continuum model for the flow of thin liquid films over intermittently chemically patterned surfaces. *European Physical Journal: Special Topics*, **2009**, 166, 159-163	2.3	5
1	Viscous flow over a chemically patterned surface. *Physical Review E*, **2007**, 76, 021602	2.4	12