Paul H Steen

List of Publications by Year
in descending order

50 papers	1,294 citations	393982 19 h-index	360668 35 g-index
51 all docs	51 docs citations	51 times ranked	1037 citing authors

#	Article	IF	Citations
1	Is contact-line mobility a material parameter?. Npj Microgravity, 2022, 8, 6.	1.9	10
2	Capillary Flow Experiments Conducted Aboard the International Space Station: Experiments and Simulations. Microgravity Science and Technology, 2022, 34, .	0.7	3
3	Resonant mode scanning to compute the spectrum of capillary surfaces with dynamic wetting effects. Journal of Engineering Mathematics, 2021, 129, 1.	0.6	4
4	Drop impact on solids: contact-angle hysteresis filters impact energy into modal vibrations. Journal of Fluid Mechanics, 2021, 923, .	1.4	7
5	The draining of capillary liquids from containers with interior corners aboard the ISS. Npj Microgravity, 2021, 7, 45.	1.9	8
6	Sweeping by sessile drop coalescence. European Physical Journal: Special Topics, 2020, 229, 1739-1756.	1.2	6
7	OpenFOAM Simulations of Late Stage Container Draining in Microgravity. Fluids, 2020, 5, 207.	0.8	15
8	Nonaxisymmetric Effects in Drop-On-Demand Piezoacoustic Inkjet Printing. Physical Review Applied, 2020, 13, .	1.5	13
9	Steiner triangular drop dynamics. Chaos, 2020, 30, 023118.	1.0	3
10	Dissipation of oscillatory contact lines using resonant mode scanning. Npj Microgravity, 2020, 6, 3.	1.9	8
11	Switchable Wettability for Condensation Heat Transfer. ACS Applied Materials & Interfaces, 2020, 12, 22115-22119.	4.0	18
12	Simulating Heat Transfer During Transient Dropwise Condensation on a Low-Thermal-Conductivity Substrate. Langmuir, 2019, 35, 11566-11578.	1.6	2
13	Volume scavenging of networked droplets. Physica D: Nonlinear Phenomena, 2019, 394, 1-15.	1.3	4
14	Droplet motions fill a periodic table. Proceedings of the National Academy of Sciences of the United States of America, 2019, 116, 4849-4854.	3.3	27
15	Moving contact-line mobility measured. Journal of Fluid Mechanics, 2018, 841, 767-783.	1.4	23
16	Static rivulet instabilities: varicose and sinuousÂmodes. Journal of Fluid Mechanics, 2018, 837, 819-838.	1.4	23
17	A drip-crosslinked tough hydrogel. Polymer, 2018, 135, 327-330.	1.8	16
18	Footprint geometry and sessile drop resonance. Physical Review E, 2017, 95, 033109.	0.8	4

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19	Saph and Schoder and the Friction Law of Blasius. Annual Review of Fluid Mechanics, 2017, 49, 575-582.	10.8	5
20	Response of driven sessile drops with contact-line dissipation. Soft Matter, 2016, 12, 8919-8926.	1.2	16
21	Mass production of shaped particles through vortex ring freezing. Nature Communications, 2016, 7, 12401.	5.8	55
22	Dynamics of sessile drops. Part 2. Experiment. Journal of Fluid Mechanics, 2015, 768, 442-467.	1.4	51
23	Liquid-bridge shape stability by energy bounding. IMA Journal of Applied Mathematics, 2015, 80, 1759-1775.	0.8	8
24	Substrate Heating in the Planar-Flow Melt Spinning of Metals. Journal of Thermal Science and Engineering Applications, 2014, 6, .	0.8	3
25	Dynamics of sessile drops. Part 1. Inviscid theory. Journal of Fluid Mechanics, 2014, 760, 5-38.	1.4	69
26	Adaptive adhesion by a beetle: Manipulation of liquid bridges and their breaking limits. Biointerphases, 2014, 9, 011001.	0.6	7
27	Beetle-inspired adhesion by capillary-bridge arrays: pull-off detachment. Journal of Adhesion Science and Technology, 2014, 28, 273-289.	1.4	14
28	Condensation on Surface Energy Gradient Shifts Drop Size Distribution toward Small Drops. Langmuir, 2014, 30, 1788-1798.	1.6	70
29	A dynamic model of the electroosmotic droplet switch. Physics of Fluids, 2013, 25, .	1.6	7
30	Coupled oscillations of deformable spherical-cap droplets. Part 1. Inviscid motions. Journal of Fluid Mechanics, 2013, 714, 312-335.	1.4	24
31	Coupled oscillations of deformable spherical-cap droplets. Part 2. Viscous motions. Journal of Fluid Mechanics, 2013, 714, 336-360.	1.4	21
32	Substrate constraint modifies the Rayleigh spectrum of vibrating sessile drops. Physical Review E, 2013, 88, 023015.	0.8	56
33	Energy dissipation and the contact-line region of a spreading bridge. Journal of Fluid Mechanics, 2012, 703, 111-141.	1.4	12
34	Bifurcation and Stability of n Coupled Droplet Oscillators with S_n Symmetry. SIAM Journal on Applied Mathematics, 2011, 71, 1204-1219.	0.8	2
35	Stability of constrained cylindrical interfaces and the torus lift of Plateauâ€“Rayleigh. Journal of Fluid Mechanics, 2010, 647, 201-219.	1.4	28
36	Capillarity-based switchable adhesion. Proceedings of the National Academy of Sciences of the United States of America, 2010, 107, 3377-3381.	3.3	141

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37	Dynamics and stability of volume-scavenging drop arrays: Coarsening by capillarity. Physica D: Nonlinear Phenomena, 2009, 238, 531-539.	1.3	10
38	Capillary oscillations of a constrained liquid drop. Physics of Fluids, 2009, 21, .	1.6	88
39	Chaotic motions of a forced droplet-droplet oscillator. Physics of Fluids, 2008, 20, .	1.6	10
40	Capillary dynamics of coupled spherical-cap droplets. Journal of Fluid Mechanics, 2007, 580, 495-505.	1.4	41
41	Capillary puddle vibrations linked to casting-defect formation in planar-flow melt spinning. Metallurgical and Materials Transactions B: Process Metallurgy and Materials Processing Science, 2006, 37, 445-456.	1.0	27
42	Liquid-bridge mediated droplet switch: A tristable capillary system. Physics of Fluids, 2005, 17, 127107.	1.6	6
43	Low-dissipation capillary switches at small scales. Applied Physics Letters, 2005, 86, 014106.	1.5	32
44	The electroosmotic droplet switch: Countering capillarity with electrokinetics. Proceedings of the National Academy of Sciences of the United States of America, 2005, 102, 11974-11979.	3.3	42
45	Vorticity transport in solidification boundary layers. Journal of Fluid Mechanics, 2001, 426, 397-406.	1.4	4
46	Contacting and forming singularities: Distinguishing examples. Chaos, 1999, 9, 164-172.	1.0	7
47	Dynamics of inviscid capillary breakup: collapse and pinchoff of a film bridge. Journal of Fluid Mechanics, 1997, 341, 245-267.	1.4	183
48	Suppression of the capillary instability in the Rayleighâ€“Taylor slot problem. Physics of Fluids, 1996, 8, 97-102.	1.6	6
49	Plume formation and resonant bifurcations in porous-media convection. Journal of Fluid Mechanics, 1994, 272, 67-90.	1.4	55
50	Electro-Osmotic Gripper Characterization for Layered Assembly. 3D Printing and Additive Manufacturing, 0, , .	1.4	0