Sigurdur T Thoroddsen

List of Publications by Year
in descending order

162	7,033	57719 44	66879 78
papers	citations	h-index	g-index

193	193	193	6275
all docs	docs citations	times ranked	citing authors

#	Article	IF	Citations
1	Effects of interface mobility on the dynamics of colliding bubbles. Current Opinion in Colloid and Interface Science, 2022, 57, 101540.	3.4	10
2	A new image-based microfluidic method to test demulsifier enhancement of coalescence-rate, for water droplets in crude oil. Journal of Petroleum Science and Engineering, 2022, 208, 109720.	2.1	7
3	Coalescence time of water-in-oil emulsions under shear. Chemical Engineering Science, 2022, 250, 117257.	1.9	10
4	On the formation of hydrogen peroxide in water microdroplets. Chemical Science, 2022, 13, 2574-2583.	3.7	44
5	Interferometry and Simulation of the Thin Liquid Film between a Free-Rising Bubble and a Glass Substrate. Langmuir, 2022, 38, 2363-2371.	1.6	6
6	Bubble eruptions in a multilayer Hele-Shaw flow. Physical Review E, 2022, 105, 045101.	0.8	1
7	Direct imaging of polymer filaments pulled from rebounding drops. Soft Matter, 2022, 18, 5097-5105.	1.2	2
8	Hydrodynamic regimes and drag on horizontally pulled floating spheres. Physics of Fluids, 2021, 33, 093308.	1.6	5
9	When superhydrophobicity can be a drag: Ventilated cavitation and splashing effects in hydrofoil and speed-boat models tests. Colloids and Surfaces A: Physicochemical and Engineering Aspects, 2021, 628, 127344.	2.3	9
10	RainbowPIV with improved depth resolutionâ€"design and comparative study with TomoPIV. Measurement Science and Technology, 2021, 32, 025401.	1.4	9
11	Cavitation upon low-speed solidâ€"liquid impact. Nature Communications, 2021, 12, 7250.	5.8	8
12	The alignment of vortical structures in turbulent flow through a contraction. Journal of Fluid Mechanics, 2020, 884, .	1.4	4
13	Fine radial jetting during the impact of compound drops. Journal of Fluid Mechanics, 2020, 883, .	1.4	12
14	Multitude of dimple shapes can produce singular jets during the collapse of immiscible drop-impact craters. Journal of Fluid Mechanics, 2020, 904, .	1.4	23
15	Spreading of Normal Liquid Helium Drops. Physical Review E, 2020, 102, 043105.	0.8	0
16	How drain flies manage to almost never get washed away. Scientific Reports, 2020, 10, 17829.	1.6	3
17	A droplet reactor on a super-hydrophobic surface allows control and characterization of amyloid fibril growth. Communications Biology, 2020, 3, 457.	2.0	13
18	Partial coalescence of a drop on a larger-viscosity pool. Physics of Fluids, 2020, 32, .	1.6	15

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19	High-Speed Time-Resolved Tomographic Particle Shadow Velocimetry Using Smartphones. Applied Sciences (Switzerland), 2020, 10, 7094.	1.3	2
20	To Split or Not to Split: Dynamics of an Air Disk Formed under a Drop Impacting on a Pool. Physical Review Letters, 2020, 124, 184501.	2.9	26
21	Free-Rising Bubbles Bounce More Strongly from Mobile than from Immobile Waterâ€“Air Interfaces. Langmuir, 2020, 36, 5908-5918.	1.6	15
22	Droplet impacts onto soft solids entrap more air. Soft Matter, 2020, 16, 5702-5710.	1.2	25
23	Superhydrophobicity and size reduction enabled Halobates (Insecta: Heteroptera, Gerridae) to colonize the open ocean. Scientific Reports, 2020, 10, 7785.	1.6	22
24	Jetting from an impacting drop containing a particle. Physics of Fluids, 2020, 32, .	1.6	18
25	Jet breakup in superfluid and normal liquid <mml:math xmlns:mml="http://www.w3.org/1998/Math/MathML"><mml:mmultiscripts><mml:mi>He</mml:mi><mml:mprescripts /><mml:none /><mml:mn>4</mml:mn></mml:mmultiscripts></mml:math>. Physical Review Fluids, 2020, 5, .	1.0	9
26	Impact and lifecycle of superfluid helium drops on a solid surface. Physical Review Fluids, 2020, 5, .	1.0	1
27	10.1063/1.5139534.8. , 2020, , .		0
28	Stable-streamlined cavities following the impact of non-superhydrophobic spheres on water. Soft Matter, 2019, 15, 6278-6287.	1.2	18
29	Mobile-surface bubbles and droplets coalesce faster but bounce stronger. Science Advances, 2019, 5, eaaw4292.	4.7	33
30	Gliding on a layer of air: impact of a large-viscosity drop on a liquid film. Journal of Fluid Mechanics, 2019, 878, .	1.4	25
31	Effect of specific cathode surface area on biofouling in an anaerobic electrochemical membrane bioreactor: Novel insights using high-speed video camera. Journal of Membrane Science, 2019, 577, 176-183.	4.1	20
32	Ultra-high speed visualization of a flash-boiling jet in a low-pressure environment. International Journal of Multiphase Flow, 2019, 110, 238-255.	1.6	19
33	Giant drag reduction on Leidenfrost spheres evaluated from extended free-fall trajectories. Experimental Thermal and Fluid Science, 2019, 102, 181-188.	1.5	16
34	Single-camera 3D PTV using particle intensities and structured light. Experiments in Fluids, 2019, 60, 1.	1.1	27
35	Experiments on the breakup of drop-impact crowns by Marangoni holes. Journal of Fluid Mechanics, 2018, 844, 162-186.	1.4	23
36	Drag crisis moderation by thin air layers sustained on superhydrophobic spheres falling in water. Soft Matter, 2018, 14, 1608-1613.	1.2	40

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37	Coalescence Dynamics of Mobile and Immobile Fluid Interfaces. Langmuir, 2018, 34, 2096-2108.	1.6	41
38	High-Speed Interferometry Under Impacting Drops. , 2018, , 321-341.		2
39	Evolution of toroidal free-rim perturbations on an expanding circular liquid sheet. Experiments in Fluids, 2018, 59, 1.	1.1	5
40	The air entrapment under a drop impacting on a nano-rough surface. Soft Matter, 2018, 14, 7586-7596.	1.2	31
41	Phase Transition Control for High-Performance Blade-Coated Perovskite Solar Cells. Joule, 2018, 2, 1313-1330.	11.7	180
42	Early azimuthal instability during drop impact. Journal of Fluid Mechanics, 2018, 848, 821-835.	1.4	21
43	Singular jets during the collapse of drop-impact craters. Journal of Fluid Mechanics, 2018, 848, .	1.4	33
44	Impact of ultra-viscous drops: air-film gliding and extreme wetting. Journal of Fluid Mechanics, 2017, 813, 647-666.	1.4	33
45	Evaporative Lithography in Open Microfluidic Channel Networks. Langmuir, 2017, 33, 2861-2871.	1.6	17
46	Vortex-induced vapor explosion during drop impact on a superheated pool. Experimental Thermal and Fluid Science, 2017, 87, 60-68.	1.5	8
47	Probing the nanoscale with high-speed interferometry of an impacting drop. Proceedings of SPIE, 2017, , .	0.8	0
48	Self-determined shapes and velocities of giant near-zero drag gas cavities. Science Advances, 2017, 3, e1701558.	4.7	52
49	Tomographic Particle Image Velocimetry using Smartphones and Colored Shadows. Scientific Reports, 2017, 7, 3714.	1.6	38
50	Navier slip model of drag reduction by Leidenfrost vapor layers. Physics of Fluids, 2017, 29, .	1.6	19
51	Double Contact During Drop Impact on a Solid Under Reduced Air Pressure. Physical Review Letters, 2017, 119, 214502.	2.9	41
52	Stableâ€"streamlined and helical cavities following the impact of Leidenfrost spheres. Journal of Fluid Mechanics, 2017, 823, 716-754.	1.4	37
53	Vortex-induced buckling of a viscous drop impacting a pool. Physical Review Fluids, 2017, 2, .	1.0	11
54	Rainbow particle imaging velocimetry for dense 3D fluid velocity imaging. ACM Transactions on Graphics, 2017, 36, 1-14.	4.9	57

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55	Magnetically Triggered Monodispersed Nanocomposite Fabricated by Microfluidic Approach for Drug Delivery. International Journal of Polymer Science, 2016, 2016, 1-8.	1.2	5
56	Vertical Phase Separation in Small Molecule:Polymer Blend Organic Thin Film Transistors Can Be Dynamically Controlled. Advanced Functional Materials, 2016, 26, 1737-1746.	7.8	98
57	Highly Efficient Thermoresponsive Nanocomposite for Controlled Release Applications. Scientific Reports, 2016, 6, 28539.	1.6	37
58	A â€œtwistedâ€• microfluidic mixer suitable for a wide range of flow rate applications. Biomicrofluidics, 2016, 10, 034120.	1.2	43
59	Crown sealing and buckling instability during water entry of spheres. Journal of Fluid Mechanics, 2016, 794, 506-529.	1.4	92
60	Cavitation structures formed during the collision of a sphere with an ultra-viscous wetted surface. Journal of Fluid Mechanics, 2016, 796, 473-515.	1.4	7
61	The effect of ambient pressure on ejecta sheets from free-surface ablation. Experiments in Fluids, 2016, 57, 1.	1.1	7
62	Leidenfrost Vapor Layers Reduce Drag without the Crisis in High Viscosity Liquids. Physical Review Letters, 2016, 117, 114503.	2.9	36
63	Formation of microbeads during vapor explosions of Field's metal in water. Physical Review E, 2016, 93, 063108.	0.8	25
64	Vortex-ring-induced large bubble entrainment during drop impact. Physical Review E, 2016, 93, 033128.	0.8	59
65	Droplet generation in cross-flow for cost-effective 3D-printed â€œplug-and-playâ€• microfluidic devices. RSC Advances, 2016, 6, 81120-81129.	1.7	42
66	Penetration in bimodal, polydisperse granular material. Physical Review E, 2016, 94, 052902.	0.8	4
67	Stability of an unsupported multi-layer surfactant laden liquid curtain under gravity. Journal of Engineering Mathematics, 2016, 99, 119-136.	0.6	1
68	Acoustic separation of oil droplets, colloidal particles and their mixtures in a microfluidic cell. Colloids and Surfaces A: Physicochemical and Engineering Aspects, 2016, 506, 138-147.	2.3	10
69	A simple and low-cost fully 3D-printed non-planar emulsion generator. RSC Advances, 2016, 6, 2793-2799.	1.7	42
70	High-ampacity conductive polymer microfibers as fast response wearable heaters and electromechanical actuators. Journal of Materials Chemistry C, 2016, 4, 1238-1249.	2.7	100
71	Antibubbles and fine cylindrical sheets of air. Journal of Fluid Mechanics, 2015, 779, 87-115.	1.4	31
72	Time-resolved imaging of a compressible air disc under a drop impacting on a solid surface. Journal of Fluid Mechanics, 2015, 780, 636-648.	1.4	81

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73	Partial coalescence from bubbles to drops. Journal of Fluid Mechanics, 2015, 782, 209-239.	1.4	36
74	Probing the nanoscale: the first contact of an impacting drop. Journal of Fluid Mechanics, 2015, 785, .	1.4	44
75	Generation of ultra-sound during tape peeling. Scientific Reports, 2015, 4, 4326.	1.6	3
76	Solution-printed organic semiconductor blends exhibiting transport properties on par with single crystals. Nature Communications, 2015, 6, 8598.	5.8	219
77	Semi-metallic, strong and stretchable wet-spun conjugated polymer microfibers. Journal of Materials Chemistry C, 2015, 3, 2528-2538.	2.7	130
78	Unraveling the Order and Disorder in Poly(3,4-ethylenedioxythiophene)/Poly(styrenesulfonate) Nanofilms. Macromolecules, 2015, 48, 5688-5696.	2.2	46
79	Drag Moderation by the Melting of an Ice Surface in Contact with Water. Physical Review Letters, 2015, 115, 044501.	2.9	14
80	Laser-induced micro-jetting from armored droplets. Experiments in Fluids, 2015, 56, 1.	1.1	10
81	Drop impact into a deep pool: vortex shedding and jet formation. Journal of Fluid Mechanics, 2015, 764, .	1.4	70
82	Latex particle template lift-up guided gold wire-networks via evaporation lithography. RSC Advances, 2014, 4, 59118-59121.	1.7	2
83	Multi-layer film flow down an inclined plane: experimental investigation. Experiments in Fluids, 2014, 55, 1.	1.1	5
84	Satellite formation during bubble transition through an interface between immiscible liquids. Journal of Fluid Mechanics, 2014, 744, .	1.4	25
85	Ejecta evolution during cone impact. Journal of Fluid Mechanics, 2014, 752, 410-438.	1.4	6
86	One-dimensional self-confinement promotes polymorph selection in large-area organic semiconductor thin films. Nature Communications, 2014, 5, 3573.	5.8	129
87	Simple and inexpensive microfluidic devices for the generation of monodisperse multiple emulsions. Journal of Micromechanics and Microengineering, 2014, 24, 015019.	1.5	24
88	The onset of cavitation during the collision of a sphere with a wetted surface. Experiments in Fluids, 2014, 55, 1.	1.1	7
89	Leidenfrost vapour layer moderation of the drag crisis and trajectories of superhydrophobic and hydrophilic spheres falling in water. Soft Matter, 2014, 10, 5662-5668.	1.2	63
90	Stabilization of Thin Liquid Films by Repulsive van der Waals Force. Langmuir, 2014, 30, 5162-5169.	1.6	27

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91	Soft colloidal probes for AFM force measurements between water droplets in oil. Colloids and Surfaces A: Physicochemical and Engineering Aspects, 2014, 462, 259-263.	2.3	15
92	A co-flow-focusing monodisperse microbubble generator. Journal of Micromechanics and Microengineering, 2014, 24, 035008.	1.5	36
93	Water entry without surface seal: extended cavity formation. Journal of Fluid Mechanics, 2014, 743, 295-326.	1.4	82
94	Leaping shampoo glides on a lubricating air layer. Physical Review E, 2013, 87, 061001.	0.8	7
95	Impact of granular drops. Physical Review E, 2013, 88, 010201.	0.8	16
96	Dynamic Air Layer on Textured Superhydrophobic Surfaces. Langmuir, 2013, 29, 11074-11081.	1.6	50
97	Asymmetric liquid wetting and spreading on surfaces with slanted micro-pillar arrays. Soft Matter, 2013, 9, 11113.	1.2	36
98	Drop impact entrapment of bubble rings. Journal of Fluid Mechanics, 2013, 724, 234-258.	1.4	88
99	Spinâ€Cast Bulk Heterojunction Solar Cells: A Dynamical Investigation. Advanced Materials, 2013, 25, 1923-1929.	11.1	163
100	Foam-Film-Stabilized Liquid Bridge Networks in Evaporative Lithography and Wet Granular Matter. Langmuir, 2013, 29, 4966-4973.	1.6	16
101	The fastest drop climbing on a wet conical fibre. Physics of Fluids, 2013, 25, 052105.	1.6	18
102	Contraction of an air disk caught between two different liquids. Physical Review E, 2013, 88, 061001.	0.8	15
103	Scanning tomographic particle image velocimetry applied to a turbulent jet. Physics of Fluids, 2013, 25, .	1.6	29
104	Technical Report: Development of a Piezoelectric Inkjet Dopant Delivery Device for an Atmospheric Pressure Photoionization Source with Liquid Chromatography/Mass Spectrometry. European Journal of Mass Spectrometry, 2013, 19, 325-334.	0.5	1
105	Squeeze flow of a Carreau fluid during sphere impact. Physics of Fluids, 2012, 24, .	1.6	35
106	Sphere impact and penetration into wet sand. Physical Review E, 2012, 86, 020301.	0.8	37
107	Micro-bubble morphologies following drop impacts onto a pool surface. Journal of Fluid Mechanics, 2012, 708, 469-479.	1.4	79
108	Micro-splashing by drop impacts. Journal of Fluid Mechanics, 2012, 706, 560-570.	1.4	74

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109	Evolution of fluid-like granular ejecta generated by sphere impact. Journal of Fluid Mechanics, 2012, 704, 5-36.	1.4	39
110	Propagation of capillary waves and ejection of small droplets in rapid droplet spreading. Journal of Fluid Mechanics, 2012, 697, 92-114.	1.4	65
111	Stabilization of Leidenfrost vapour layer by textured superhydrophobic surfaces. Nature, 2012, 489, 274-277.	13.7	467
112	von KÃ¡rmÃ¡n Vortex Street within an Impacting Drop. Physical Review Letters, 2012, 108, 264506.	2.9	127
113	Cavity formation by the impact of Leidenfrost spheres. Journal of Fluid Mechanics, 2012, 699, 465-488.	1.4	44
114	The making of a splash. Journal of Fluid Mechanics, 2012, 690, 1-4.	1.4	13
115	Bubble entrapment during sphere impact onto quiescent liquid surfaces. Journal of Fluid Mechanics, 2011, 680, 660-670.	1.4	35
116	Cavitation structures formed during the rebound of a sphere from a wetted surface. Experiments in Fluids, 2011, 50, 729-746.	1.1	14
117	Drag Reduction by Leidenfrost Vapor Layers. Physical Review Letters, 2011, 106, 214501.	2.9	169
118	Droplet Splashing by a Slingshot Mechanism. Physical Review Letters, 2011, 106, 034501.	2.9	70
119	Direct verification of the lubrication force on a sphere travelling through a viscous film upon approach to a solid wall. Journal of Fluid Mechanics, 2010, 655, 515-526.	1.4	19
120	Laser-induced onset of electrospinning. Physical Review E, 2010, 81, 035302.	0.8	3
121	Bubble entrapment through topological change. Physics of Fluids, 2010, 22, .	1.6	54
122	Stick-slip substructure in rapid tape peeling. Physical Review E, 2010, 82, 046107.	0.8	12
123	Satellite Formation during Coalescence of Unequal Size Drops. Physical Review Letters, 2009, 102, 104502.	2.9	77
124	DEWETTING AT THE CENTER OF A DROP IMPACT. Modern Physics Letters B, 2009, 23, 361-364.	1.0	8
125	Spray and microjets produced by focusing a laser pulse into a hemispherical drop. Physics of Fluids, 2009, 21, .	1.6	83
126	Satellite generation during bubble coalescence. Physics of Fluids, 2008, 20, .	1.6	46

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127	Development of a drop-on-demand system for multiple material dispensing. , 2008, , .		5
128	Apex jets from impacting drops. Journal of Fluid Mechanics, 2008, 614, 293-302.	1.4	13
129	The initial coalescence of miscible drops. Physics of Fluids, 2007, 19, .	1.6	67
130	Experiments on bubble pinch-off. Physics of Fluids, 2007, 19, 042101.	1.6	123
131	Microjetting from wave focusing on oscillating drops. Physics of Fluids, 2007, 19, 052101.	1.6	29
132	Crown breakup by Marangoni instability. Journal of Fluid Mechanics, 2006, 557, 63.	1.4	48
133	Droplet genealogy. Nature Physics, 2006, 2, 223-224.	6.5	8
134	Air-bubble entrapment due to a drop. , 2005, , .		4
135	The air bubble entrapped under a drop impacting on a solid surface. Journal of Fluid Mechanics, 2005, 545, 203.	1.4	182
136	Puncturing a drop using surfactants. Journal of Fluid Mechanics, 2005, 530, 295-304.	1.4	9
137	The coalescence speed of a pendent and a sessile drop. Journal of Fluid Mechanics, 2005, 527, 85-114.	1.4	185
138	On the coalescence speed of bubbles. Physics of Fluids, 2005, 17, 071703.	1.6	43
139	Free-surface entrainment into a rimming flow containing surfactants. Physics of Fluids, 2004, 16, L13-L16.	1.6	13
140	Impact jetting by a solid sphere. Journal of Fluid Mechanics, 2004, 499, 139-148.	1.4	62
141	Air entrapment under an impacting drop. Journal of Fluid Mechanics, 2003, 478, 125-134.	1.4	164
142	The ejecta sheet generated by the impact of a drop. Journal of Fluid Mechanics, 2002, 451, 373-381.	1.4	151
143	Granular jets. Physics of Fluids, 2001, 13, 4-6.	1.6	126
144	The coalescence cascade of a drop. Physics of Fluids, 2000, 12, 1265-1267.	1.6	204

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145	IS SEGREGATION-BY-PARTICLE-TYPE A GENERIC MECHANISM UNDERLYING FINGER FORMATION AT FRONTS OF FLOWING GRANULAR MEDIA?. Particulate Science and Technology, 1999, 17, 141-147.	1.1	3
146	Qualitative flow visualization using colored lights and reflective flakes. Physics of Fluids, 1999, 11, 1702-1704.	1.6	17
147	Experiments on homogeneous turbulence in an unstably stratified fluid. Physics of Fluids, 1998, 10, 3155-3167.	1.6	9
148	Evolution of the fingering pattern of an impacting drop. Physics of Fluids, 1998, 10, 1359-1374.	1.6	177
149	Marangoni instability of two liquids mixing at a free surface. Physics of Fluids, 1998, 10, 3038-3040.	1.6	16
150	Wave patterns in a thin layer of sand within a rotating horizontal cylinder. Physics of Fluids, 1998, 10, 10-12.	1.6	19
151	Experimental study of coating flows in a partially-filled horizontally Rotating cylinder. Experiments in Fluids, 1997, 23, 1-13.	1.1	150
152	Experiments on density-gradient anisotropies and scalar dissipation of turbulence in a stably stratified fluid. Journal of Fluid Mechanics, 1996, 322, 383-409.	1.4	21
153	Scaling of the fingering pattern of an impacting drop. Physics of Fluids, 1996, 8, 1344-1346.	1.6	93
154	Conditional sampling of dissipation in moderate Reynolds number grid turbulence. Physics of Fluids, 1996, 8, 1333-1335.	1.6	2
155	Baroclinic generation of vorticity by an axisymmetric vortex in a linearly stratified fluid; in the passive limit. Physics of Fluids, 1996, 8, 2774-2776.	1.6	1
156	Reevaluation of the experimental support for the Kolmogorov refined similarity hypothesis. Physics of Fluids, 1995, 7, 691-693.	1.6	31
157	The effects of a vertical contraction on turbulence dynamics in a stably stratified fluid. Journal of Fluid Mechanics, 1995, 285, 371.	1.4	8
158	Stably stratified turbulence subjected to a constant area vertical expansion. Physics of Fluids, 1995, 7, 1165-1167.	1.6	3
159	Exponential tails and skewness of density-gradient probability density functions in stably stratified turbulence. Journal of Fluid Mechanics, 1992, 244, 547.	1.4	61
160	Experimental evidence supporting Kolmogorovâ€™s refined similarity hypothesis. Physics of Fluids A, Fluid Dynamics, 1992, 4, 2592-2594.	1.6	52
161	The deformation of a liquid film flowing down an inclined plane wall over a small particle arrested on the wall. Physics of Fluids A, Fluid Dynamics, 1991, 3, 2546-2558.	1.6	41
162	Poster: Bouncing with filaments. , 0, , .		0