Andrea Prosperetti

List of Publications by Year
in descending order

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285 papers	16,521 citations	15466 65 h-index	18606 119 g-index
322 all docs	322 docs citations	322 times ranked	7339 citing authors

#	Article	IF	Citations
1	Bubble Dynamics and Cavitation. Annual Review of Fluid Mechanics, 1977, 9, 145-185.	10.8	1,575
2	Linear pressure waves in bubbly liquids: Comparison between theory and experiments. Journal of the Acoustical Society of America, 1989, 85, 732-746.	0.5	632
3	Bubble dynamics in a compressible liquid. Part 1. First-order theory. Journal of Fluid Mechanics, 1986, 168, 457.	1.4	556
4	Thermal effects and damping mechanisms in the forced radial oscillations of gas bubbles in liquids. Journal of the Acoustical Society of America, 1977, 61, 17-27.	0.5	430
5	Dynamics of bubble growth and detachment from a needle. Journal of Fluid Mechanics, 1993, 257, 111.	1.4	409
6	Nonlinear bubble dynamics. Journal of the Acoustical Society of America, 1988, 83, 502-514.	0.5	396
7	Drop Impact on Superheated Surfaces. Physical Review Letters, 2012, 108, 036101.	2.9	378
8	Bubble entrainment by the impact of drops on liquid surfaces. Journal of Fluid Mechanics, 1990, 219, 143.	1.4	296
9	The thermal behaviour of oscillating gas bubbles. Journal of Fluid Mechanics, 1991, 222, 587.	1.4	272
10	Averaged equations for inviscid disperse two-phase flow. Journal of Fluid Mechanics, 1994, 267, 185-219.	1.4	267
11	The Impact of Drops on Liquid Surfaces and the Underwater Noise of Rain. Annual Review of Fluid Mechanics, 1993, 25, 577-602.	10.8	256
12	The crevice model of bubble nucleation. Journal of the Acoustical Society of America, 1989, 86, 1065-1084.	0.5	247
13	A theoretical study of sonoluminescence. Journal of the Acoustical Society of America, 1993, 94, 248-260.	0.5	229
14	Droplet impact on superheated micro-structured surfaces. Soft Matter, 2013, 9, 3272.	1.2	216
15	Viscous effects on perturbed spherical flows. Quarterly of Applied Mathematics, 1977, 34, 339-352.	0.5	209
16	Free oscillations of drops and bubbles: the initial-value problem. Journal of Fluid Mechanics, 1980, 100, 333.	1.4	205
17	Vapor Bubbles. Annual Review of Fluid Mechanics, 2017, 49, 221-248.	10.8	185
18	Vapour-bubble growth in a superheated liquid. Journal of Fluid Mechanics, 1978, 85, 349.	1.4	183

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19	A note on the effective slip properties for microchannel flows with ultrahydrophobic surfaces. Physics of Fluids, 2007, 19, 043603.	1.6	183
20	Bubble phenomena in sound fields: part one. Ultrasonics, 1984, 22, 69-77.	2.1	167
21	Bubble dynamics in a compressible liquid. Part 2. Second-order theory. Journal of Fluid Mechanics, 1987, 185, 289-321.	1.4	151
22	Momentum and energy equations for disperse two-phase flows and their closure for dilute suspensions. International Journal of Multiphase Flow, 1997, 23, 425-453.	1.6	150
23	Dynamic Leidenfrost Effect: Relevant Time and Length Scales. Physical Review Letters, 2016, 116, 064501.	2.9	150
24	Ensemble phaseâ€averaged equations for bubbly flows. Physics of Fluids, 1994, 6, 2956-2970.	1.6	148
25	Nonlinear oscillations of gas bubbles in liquids: steadyâ€state solutions. Journal of the Acoustical Society of America, 1974, 56, 878-885.	0.5	132
26	Motion of two superposed viscous fluids. Physics of Fluids, 1981, 24, 1217.	1.4	132
27	A second-order method for three-dimensional particle simulation. Journal of Computational Physics, 2005, 210, 292-324.	1.9	132
28	Nucleation threshold and deactivation mechanisms of nanoscopic cavitation nuclei. Physics of Fluids, 2009, 21, .	1.6	130
29	The dynamics of vapor bubbles in acoustic pressure fields. Physics of Fluids, 1999, 11, 2008-2019.	1.6	126
30	Numerical integration methods in gasâ€bubble dynamics. Journal of the Acoustical Society of America, 1989, 85, 1538-1548.	0.5	119
31	Bubbles. Physics of Fluids, 2004, 16, 1852-1865.	1.6	118
32	Electrolytically Generated Nanobubbles on Highly Orientated Pyrolytic Graphite Surfaces. Langmuir, 2009, 25, 1466-1474.	1.6	116
33	A generalization of the Rayleighâ€“Plesset equation of bubble dynamics. Physics of Fluids, 1982, 25, 409.	1.4	111
34	Bubbleâ€related ambient noise in the ocean. Journal of the Acoustical Society of America, 1988, 84, 1042-1054.	0.5	109
35	The natural frequency of oscillation of gas bubbles in tubes. Journal of the Acoustical Society of America, 1998, 103, 3301-3308.	0.5	107
36	On the in-line motion of two spherical bubbles in a viscous fluid. Journal of Fluid Mechanics, 1994, 278, 325-349.	1.4	106

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37	The effect of viscosity on the spherical stability of oscillating gas bubbles. Physics of Fluids, 1999, 11, 1309-1317.	1.6	104
38	On the mechanism of air entrainment by liquid jets at a free surface. Journal of Fluid Mechanics, 2000, 404, 151-177.	1.4	104
39	Bubble phenomena in sould fields: part two. Ultrasonics, 1984, 22, 115-124.	2.1	103
40	Giant Bubble Pinch-Off. Physical Review Letters, 2006, 96, 154505.	2.9	103
41	Surface-tension effects in the contact of liquid surfaces. Journal of Fluid Mechanics, 1989, 203, 149-171.	1.4	102
42	Shock waves in dilute bubbly liquids. Journal of Fluid Mechanics, 1994, 274, 349-381.	1.4	101
43	Bubble-based micropump for electrically conducting liquids. Journal of Micromechanics and Microengineering, 2001, 11, 270-276.	1.5	100
44	Growth and collapse of a vapor bubble in a narrow tube. Physics of Fluids, 2000, 12, 1268-1277.	1.6	95
45	Wall effects on a rotating sphere. Journal of Fluid Mechanics, 2010, 657, 1-21.	1.4	92
46	A generalization of the impulse and virial theorems with an application to bubble oscillations. Journal of Fluid Mechanics, 1990, 218, 143.	1.4	91
47	Nonlinear oscillations of gas bubbles in liquids. Transient solutions and the connection between subharmonic signal and cavitation. Journal of the Acoustical Society of America, 1975, 57, 810-821.	0.5	90
48	The added mass, Basset, and viscous drag coefficients in nondilute bubbly liquids undergoing smallâ€amplitude oscillatory motion. Physics of Fluids A, Fluid Dynamics, 1991, 3, 2955-2970.	1.6	87
49	The stability of an evaporating liquid surface. Physics of Fluids, 1984, 27, 1590.	1.4	86
50	An investigation of the collective oscillations of a bubble cloud. Journal of the Acoustical Society of America, 1991, 89, 700-706.	0.5	85
51	A new mechanism for sonoluminescence. Journal of the Acoustical Society of America, 1997, 101, 2003-2007.	0.5	85
52	Modelling of spherical gas bubble oscillations and sonoluminescence. Philosophical Transactions Series A, Mathematical, Physical, and Engineering Sciences, 1999, 357, 203-223.	1.6	84
53	The â€˜acoustic scallopâ€™: a bubble-powered actuator. Journal of Micromechanics and Microengineering, 2006, 16, 1653-1659.	1.5	82
54	The Leidenfrost temperature increase for impacting droplets on carbon-nanofiber surfaces. Soft Matter, 2014, 10, 2102-2109.	1.2	78

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55	The underwater noise of rain. Journal of Geophysical Research, 1989, 94, 3255-3259.	3.3	77
56	Pressure forces in disperse two-phase flow. International Journal of Multiphase Flow, 1984, 10, 425-440.	1.6	75
57	The equation of bubble dynamics in a compressible liquid. Physics of Fluids, 1987, 30, 3626.	1.4	73
58	Underwater noise emissions from bubble clouds. IEEE Journal of Oceanic Engineering, 1990, 15, 275-281.	2.1	71
59	The interaction between a solid particle and a turbulent flow. New Journal of Physics, 2010, 12, 033040.	1.2	71
60	On the suitability of first-order differential models for two-phase flow prediction. International Journal of Multiphase Flow, 1985, 11, 133-148.	1.6	70
61	Vapour cooling of poorly conducting hot substrates increases the dynamic Leidenfrost temperature. International Journal of Heat and Mass Transfer, 2016, 97, 101-109.	2.5	70
62	The pumping effect of growing and collapsing bubbles in a tube. Journal of Micromechanics and Microengineering, 1999, 9, 402-413.	1.5	69
63	Effective velocity boundary condition at a mixed slip surface. Journal of Fluid Mechanics, 2007, 578, 435-451.	1.4	68
64	Mechanism of mass-transfer enhancement in textiles by ultrasound. AICHE Journal, 2004, 50, 58-64.	1.8	67
65	Efficient Sonochemistry through Microbubbles Generated with Micromachined Surfaces. Angewandte Chemie - International Edition, 2010, 49, 9699-9701.	7.2	67
66	Nonlinear oscillations of gas bubbles in liquids: An interpretation of some experimental results. Journal of the Acoustical Society of America, 1983, 73, 121-127.	0.5	66
67	Drop Fragmentation at Impact onto a Bath of an Immiscible Liquid. Physical Review Letters, 2013, 110, 264503.	2.9	64
68	Drag and lift forces on bubbles in a rotating flow. Journal of Fluid Mechanics, 2007, 571, 439-454.	1.4	63
69	PHYSALIS: a new method for particle simulation. Journal of Computational Physics, 2003, 187, 371-390.	1.9	62
70	Highly focused supersonic microjets: numerical simulations. Journal of Fluid Mechanics, 2013, 719, 587-605.	1.4	62
71	The added mass of an expanding bubble With an Appendix by A. Prosperetti, C. D. Ohl, A. Tijink, G. Mougin J. Magnaudet.. Journal of Fluid Mechanics, 2003, 482, 271-290.	1.4	61
72	The quasi-static growth of CO₂Âbubbles. Journal of Fluid Mechanics, 2014, 741, .	1.4	60

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73	Growth and collapse of a vapor bubble in a small tube. International Journal of Heat and Mass Transfer, 1999, 42, 3643-3657.	2.5	59
74	Air entrapment by a falling water mass. Journal of Fluid Mechanics, 1995, 294, 181-207.	1.4	58
75	Application of the subharmonic threshold to the measurement of the damping of oscillating gas bubbles. Journal of the Acoustical Society of America, 1977, 61, 11-16.	0.5	57
76	Orthogonal mapping in two dimensions. Journal of Computational Physics, 1992, 98, 254-268.	1.9	57
77	Sound emissions by a laboratory bubble cloud. Journal of the Acoustical Society of America, 1994, 95, 3171-3182.	0.5	57
78	Flow of vapour in a liquid enclosure. Journal of Fluid Mechanics, 1976, 78, 433-444.	1.4	56
79	Viscous effects on small-amplitude surface waves. Physics of Fluids, 1976, 19, 195.	1.4	55
80	Nonlinear wave interactions in bubble layers. Journal of the Acoustical Society of America, 2003, 113, 1304-1316.	0.5	55
81	History force on coated microbubbles propelled by ultrasound. Physics of Fluids, 2009, 21, .	1.6	53
82	Growth and collapse of a vapour bubble in a microtube: the role of thermal effects. Journal of Fluid Mechanics, 2009, 632, 5-16.	1.4	53
83	Heat transport in bubbling turbulent convection. Proceedings of the National Academy of Sciences of the United States of America, 2013, 110, 9237-9242.	3.3	53
84	Physalis: A New o(N) Method for the Numerical Simulation of Disperse Systems: Potential Flow of Spheres. Journal of Computational Physics, 2001, 167, 196-216.	1.9	52
85	Bubble growth on an impulsively powered microheater. International Journal of Heat and Mass Transfer, 2004, 47, 1053-1067.	2.5	52
86	A microfluidic â€˜blinking bubbleâ€™ pump. Journal of Micromechanics and Microengineering, 2005, 15, 643-651.	1.5	52
87	Growing bubbles in a slightly supersaturated liquid solution. Review of Scientific Instruments, 2013, 84, 065111.	0.6	52
88	Entrapped air bubbles in piezo-driven inkjet printing: Their effect on the droplet velocity. Physics of Fluids, 2006, 18, 121511.	1.6	51
89	Highly Focused Supersonic Microjets. Physical Review X, 2012, 2, .	2.8	51
90	Ultrasound artificially nucleated bubbles and their sonochemical radical production. Ultrasonics Sonochemistry, 2013, 20, 510-524.	3.8	51

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91	Effective boundary conditions for Stokes flow over a rough surface. Journal of Fluid Mechanics, 1996, 316, 223-240.	1.4	49
92	Role of Air in Granular Jet Formation. Physical Review Letters, 2007, 99, 018001.	2.9	49
93	Pressure-driven flow in a channel with porous walls. Journal of Fluid Mechanics, 2011, 679, 77-100.	1.4	49
94	Validation of an approximate model for the thermal behavior in acoustically driven bubbles. Journal of the Acoustical Society of America, 2011, 130, 3243-3251.	0.5	49
95	A Method for Particle Simulation. Journal of Applied Mechanics, Transactions ASME, 2003, 70, 64-74.	1.1	48
96	A numerical method for three-dimensional gasâ€“liquid flow computations. Journal of Computational Physics, 2004, 196, 126-144.	1.9	46
97	A Numerical Study of Taylor Bubbles. Industrial & Engineering Chemistry Research, 2009, 48, 242-252.	1.8	46
98	The speed of sound in a gasâ€“vapour bubbly liquid. Interface Focus, 2015, 5, 20150024.	1.5	46
99	Linear stability of the flow past a spheroidal bubble. Journal of Fluid Mechanics, 2007, 582, 53-78.	1.4	45
100	Linear oscillations of constrained drops, bubbles, and plane liquid surfaces. Physics of Fluids, 2012, 24, .	1.6	45
101	A Shape Decomposition Technique in Electrical Impedance Tomography. Journal of Computational Physics, 1999, 155, 75-95.	1.9	44
102	Modelling large scale airgun-bubble dynamics with highly non-spherical features. International Journal of Multiphase Flow, 2020, 122, 103143.	1.6	43
103	Boundary conditions at a liquid-vapor interface. Meccanica, 1979, 14, 34-47.	1.2	42
104	A nonlinear model of thermoacoustic devices. Journal of the Acoustical Society of America, 2002, 112, 1431-1444.	0.5	41
105	A simplified model for linear and nonlinear processes in thermoacoustic prime movers. Part II. Nonlinear oscillations. Journal of the Acoustical Society of America, 1997, 102, 3497-3506.	0.5	40
106	A sphere in a uniformly rotating or shearing flow. Journal of Fluid Mechanics, 2008, 600, 201-233.	1.4	40
107	Bouncing Oil Droplet in a Stratified Liquid and its Sudden Death. Physical Review Letters, 2019, 122, 154502.	2.9	40
108	Bubble oscillations in the vicinity of a nearly plane free surface. Journal of the Acoustical Society of America, 1990, 87, 2085-2092.	0.5	39

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109	A simplified model for linear and nonlinear processes in thermoacoustic prime movers. Part I. Model and linear theory. Journal of the Acoustical Society of America, 1997, 102, 3484-3496.	0.5	39
110	Reduced cellular immune response in social insect lineages. Biology Letters, 2016, 12, 20150984.	1.0	39
111	Drag coefficient of a gas bubble in an axisymmetric shear flow. Physics of Fluids, 1994, 6, 3186-3188.	1.6	38
112	â€˜Blinking bubbleâ€™ micropump with microfabricated heaters. Journal of Micromechanics and Microengineering, 2005, 15, 1683-1691.	1.5	38
113	Harmonic enhancement of single-bubble sonoluminescence. Physical Review E, 2003, 67, 056310.	0.8	37
114	Bubble dynamics: a review and some recent results. Flow, Turbulence and Combustion, 1982, 38, 145-164.	0.2	36
115	Heat transfer mechanisms in bubbly Rayleigh-BÃ©nard convection. Physical Review E, 2009, 80, 026304.	0.8	36
116	Drag and lift forces on particles in a rotating flow. Journal of Fluid Mechanics, 2010, 643, 1-31.	1.4	36
117	The linear stability of general two-phase flow modelsâ€”II. International Journal of Multiphase Flow, 1987, 13, 161-171.	1.6	35
118	Nonlinear saturation of the thermoacoustic instability. Journal of the Acoustical Society of America, 2000, 107, 3130-3147.	0.5	35
119	The transient rise of a bubble subject to shape or volume changes. Physics of Fluids, 2003, 15, 2640-2648.	1.6	35
120	Active and passive acoustic behavior of bubble clouds at the oceanâ€™s surface. Journal of the Acoustical Society of America, 1993, 93, 3117-3127.	0.5	34
121	Mechanism of air entrainment by a disturbed liquid jet. Physics of Fluids, 2000, 12, 1710-1714.	1.6	34
122	A general derivation of the subharmonic threshold for non-linear bubble oscillations. Journal of the Acoustical Society of America, 2013, 133, 3719-3726.	0.5	34
123	Pressure-driven flow in a two-dimensional channel with porous walls. Journal of Fluid Mechanics, 2009, 631, 1-21.	1.4	33
124	Life and death by boundary conditions. Journal of Fluid Mechanics, 2015, 768, 1-4.	1.4	33
125	Spiraling Bubbles: How Acoustic and Hydrodynamic Forces Compete. Physical Review Letters, 2001, 86, 4819-4822.	2.9	32
126	Vapour bubble collapse in isothermal and non-isothermal liquids. Journal of Fluid Mechanics, 2008, 601, 253-279.	1.4	32

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127	A fully resolved numerical simulation of turbulent flow past one or several spherical particles. Physics of Fluids, 2012, 24, 013303.	1.6	32
128	Gasâ€liquid heat transfer in a bubble collapsing near a wall. Physics of Fluids, 1997, 9, 127-142.	1.6	31
129	Resolved-particle simulation by the Physalis method: Enhancements and new capabilities. Journal of Computational Physics, 2016, 309, 164-184.	1.9	31
130	Navier-Stokes Numerical Algorithms for Free-Surface Flow Computations: An Overview. CISM International Centre for Mechanical Sciences, Courses and Lectures, 2002, , 237-257.	0.3	31
131	The collapse of vapor bubbles in a spatially non-uniform flow. International Journal of Heat and Mass Transfer, 2000, 43, 3539-3550.	2.5	30
132	Bubble Dynamics in Oceanic Ambient Noise. , 1988, , 151-171.		30
133	Mixture pressure and stress in disperse two-phase flow. International Journal of Multiphase Flow, 1999, 25, 1395-1429.	1.6	29
134	A level set method for vapor bubble dynamics. Journal of Computational Physics, 2012, 231, 1533-1552.	1.9	29
135	â€˜Particle stressâ€™ in disperse two-phase potential flow. Journal of Fluid Mechanics, 1995, 294, 1-16.	1.4	28
136	Dynamics of Formation of a Vapor Nanobubble Around a Heated Nanoparticle. Journal of Physical Chemistry C, 2018, 122, 20571-20580.	1.5	28
137	A second-order boundary-fitted projection method for free-surface flow computations. Journal of Computational Physics, 2006, 213, 574-590.	1.9	27
138	Dissolution and growth of a multicomponent drop in an immiscible liquid. Journal of Fluid Mechanics, 2016, 798, 787-811.	1.4	27
139	Crown formation from a cavitating bubble close to a free surface. Journal of Fluid Mechanics, 2021, 926, .	1.4	27
140	Lowâ€frequency acoustic wave generation in a resonant bubble layer. Journal of the Acoustical Society of America, 1996, 100, 3570-3580.	0.5	26
141	Thermal processes in the oscillations of gas bubbles in tubes. Journal of the Acoustical Society of America, 1998, 104, 1389-1398.	0.5	26
142	Flow of spatially non-uniform suspensions.. International Journal of Multiphase Flow, 2000, 26, 783-831.	1.6	26
143	Local interfacial stability near a zero vorticityÂpoint. Journal of Fluid Mechanics, 2015, 776, 5-36.	1.4	26
144	Linear stability of a growing or collapsing bubble in a slightly viscous liquid. Physics of Fluids, 1978, 21, 1465.	1.4	25

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145	Coherent and incoherent scattering by oceanic bubbles. Journal of the Acoustical Society of America, 1994, 96, 332-341.	0.5	25
146	Physics-based analysis of the hydrodynamic stress in a fluid-particle system. Physics of Fluids, 2010, 22, 033306.	1.6	25
147	Subharmonics and ultraharmonics in the forced oscillations of weakly nonlinear systems. American Journal of Physics, 1976, 44, 548-554.	0.3	24
148	Transient impact of a liquid column on a miscible liquid surface. Physics of Fluids, 2003, 15, 821-824.	1.6	24
149	Axial stability of Taylor bubbles. Journal of Fluid Mechanics, 2006, 568, 173.	1.4	24
150	Dynamics of a Disturbed Sessile Drop Measured by Atomic Force Microscopy (AFM). Langmuir, 2011, 27, 11966-11972.	1.6	23
151	On the characteristics of the equations of motion for a bubbly flow and the related problem of critical flow. Journal of Engineering Mathematics, 1976, 10, 153-162.	0.6	22
152	Air entrainment upon liquid impact. Philosophical Transactions Series A, Mathematical, Physical, and Engineering Sciences, 1997, 355, 491-506.	1.6	22
153	Gasâ€“Vapor Interplay in Plasmonic Bubble Shrinkage. Journal of Physical Chemistry C, 2020, 124, 5861-5869.	1.5	22
154	Gas depletion through single gas bubble diffusive growth and its effect on subsequent bubbles. Journal of Fluid Mechanics, 2017, 831, 474-490.	1.4	21
155	The contribution of latent heat transport in subcooled nucleate boiling. International Journal of Heat and Mass Transfer, 1978, 21, 725-734.	2.5	20
156	The oscillation of gas bubbles in tubes: Experimental results. Journal of the Acoustical Society of America, 1999, 106, 674-681.	0.5	20
157	The action of pressure-radiation forces on pulsating vapor bubbles. Physics of Fluids, 2001, 13, 1167-1177.	1.6	20
158	Spatial distribution of heat flux and fluctuations in turbulent Rayleigh-BÃ©nard convection. Physical Review E, 2012, 86, 056315.	0.8	20
159	Effects of particle settling on Rayleigh-BÃ©nard convection. Physical Review E, 2013, 87, 063014.	0.8	20
160	Modelling the thermal behaviour of gas bubbles. Journal of Fluid Mechanics, 2020, 901, .	1.4	20
161	Bubble oscillations in the nearly adiabatic limit. Journal of the Acoustical Society of America, 1992, 92, 2016-2023.	0.5	19
162	Flow of spatially non-uniform suspensions. International Journal of Multiphase Flow, 2001, 27, 237-276.	1.6	19

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163	Marangoni Instability of a Drop in a Stably Stratified Liquid. Physical Review Letters, 2021, 126, 124502.	2.9	19
164	Cavitation and bubble bursting as sources of oceanic ambient noise. Journal of the Acoustical Society of America, 1988, 84, 1037-1041.	0.5	18
165	Effect of vapor bubbles on velocity fluctuations and dissipation rates in bubbly Rayleigh-BÃ©nard convection. Physical Review E, 2011, 84, 036312.	0.8	18
166	Oscillations of a gas pocket on a liquid-covered solid surface. Physics of Fluids, 2012, 24, .	1.6	18
167	Mechanics of gas-vapor bubbles. Physical Review Fluids, 2017, 2, .	1.0	18
168	On the classical theory of the electron. Il Nuovo Cimento A, 1978, 43, 127-142.	0.2	17
169	Rayleighâ€“Taylor instability for adiabatically stratified fluids. Physics of Fluids A, Fluid Dynamics, 1989, 1, 1784-1795.	1.6	17
170	The stability of an air film in a liquid flow. Journal of Fluid Mechanics, 1991, 226, 319-347.	1.4	17
171	Examples of airâ€entraining flows. Physics of Fluids A, Fluid Dynamics, 1992, 4, 649-651.	1.6	17
172	Resolved simulations of sedimenting suspensions of spheres. Physical Review Fluids, 2019, 4, .	1.0	17
173	Rectified heat transfer into translating and pulsating vapor bubbles. Journal of the Acoustical Society of America, 2002, 112, 1787-1796.	0.5	16
174	Dynamics of cavitation clouds within a high-intensity focused ultrasonic beam. Physics of Fluids, 2013, 25, .	1.6	16
175	Flow of spatially non-uniform suspensions. Part III: Closure relations for porous media and spinning particles. International Journal of Multiphase Flow, 2001, 27, 1627-1653.	1.6	15
176	Numerical calculation of the underwater noise of rain. Journal of Fluid Mechanics Digital Archive, 1991, 228, 417.	0.6	14
177	Finite-particle-size effects in disperse two-phase flows. Theoretical and Computational Fluid Dynamics, 1995, 7, 429-440.	0.9	14
178	Workshop Findings. International Journal of Multiphase Flow, 2003, 29, 1047-1059.	1.6	14
179	Modification of turbulence in Rayleighâ€“BÃ©nard convection by phase change. New Journal of Physics, 2011, 13, 025002.	1.2	14
180	Differential formulation of the viscous history force on a particle for efficient and accurateÂcomputation. Journal of Fluid Mechanics, 2018, 844, 970-993.	1.4	14

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181	How ambient conditions affect the Leidenfrost temperature. Soft Matter, 2021, 17, 3207-3215.	1.2	14
182	Ensemble Averaging Techniques for Disperse Flows. The IMA Volumes in Mathematics and Its Applications, 1998, , 99-136.	0.5	14
183	Reply to comments on â€˜â€˜General analysis of the stability of superposed fluidsâ€™â€™. Physics of Fluids, 1982, 25, 911.	1.4	13
184	EFFECT OF GRID ORTHOGONALITY ON THE SOLUTION ACCURACY OF THE TWO-DIMENSIONAL CONVECTION-DIFFUSION EQUATION. Numerical Heat Transfer, Part B: Fundamentals, 1994, 26, 1-20.	0.6	13
185	Enhancement of channel wall vibration due to acoustic excitation of an internal bubbly flow. Journal of Fluids and Structures, 2010, 26, 994-1017.	1.5	13
186	Bubble dynamics: Some things we did not know 10 years ago. Fluid Mechanics and Its Applications, 1994, , 3-16.	0.1	13
187	Small-amplitude waves on the surface of a layer of a viscous liquid. Quarterly of Applied Mathematics, 1981, 38, 375-389.	0.5	12
188	The oscillations of a small floating bubble. Physics of Fluids A, Fluid Dynamics, 1989, 1, 252-260.	1.6	12
189	Backscattering of underwater noise by bubble clouds. Journal of the Acoustical Society of America, 1993, 93, 3128-3138.	0.5	12
190	Homogeneous nucleation: Patching the way from the macroscopic to the nanoscopic description. Proceedings of the National Academy of Sciences of the United States of America, 2016, 113, 13549-13550.	3.3	12
191	A numerical method for potential flows with a free surface. Journal of Computational Physics, 1983, 51, 365-386.	1.9	11
192	DISPERSE PHASE STRESS IN TWO-PHASE FLOW. Chemical Engineering Communications, 1996, 141-142, 387-398.	1.5	11
193	Controlling bubbles. Journal of Physics Condensed Matter, 2003, 15, S415-S420.	0.7	11
194	The average stress in incompressible disperse flow. International Journal of Multiphase Flow, 2004, 30, 1011-1036.	1.6	11
195	Fully-resolved simulation of particulate flows with particlesâ€“fluid heat transfer. Journal of Computational Physics, 2017, 350, 638-656.	1.9	11
196	Dynamics of a toroidal bubble on a cylinder surface with an application to geophysical exploration. International Journal of Multiphase Flow, 2020, 129, 103335.	1.6	11
197	Linear thermoacoustic instability in the time domain. Journal of the Acoustical Society of America, 1998, 103, 3309-3317.	0.5	10
198	Appendix 3: Report of study group on computational physics. International Journal of Multiphase Flow, 2003, 29, 1089-1099.	1.6	10

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199	Asymmetry-induced particle drift in a rotating flow. Physics of Fluids, 2005, 17, 072106.	1.6	10
200	Improved procedure for the computation of Lambâ€™s coefficients in the physalis method for particle simulation. Journal of Computational Physics, 2013, 234, 44-59.	1.9	10
201	Transition to convection in single bubble diffusive growth. Journal of Fluid Mechanics, 2019, 871, 332-349.	1.4	10
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