FrÃ©dÃ©ric Risso

List of Publications by Year
in descending order

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65	2,546	186265	189892
papers	citations	28 h-index	50 g-index

67	67	67	1600
all docs	docs citations	times ranked	citing authors

#	Article	IF	Citations
1	A few upstream bifurcations drive the spatial distribution of red blood cells in model microfluidic networks. Soft Matter, 2022, 18, 1463-1478.	2.7	13
2	Prediction of size distribution in dairy cream homogenization. Journal of Food Engineering, 2022, 324, 110973.	5.2	3
3	Statistics of velocity fluctuations in a homogeneous liquid fluidized bed. Physical Review Fluids, 2021, 6, .	2.5	0
4	Bridge expansion after coalescence of two droplets in air: Inertial regime. Physics of Fluids, 2021, 33, 062112.	4.0	7
5	Numerical simulations of the agitation generated by coarse-grained bubbles moving at large Reynolds number. Journal of Fluid Mechanics, 2021, 926, .	3.4	2
6	On the fluidization/sedimentation velocity of a homogeneous suspension in a low-inertia fluid. Powder Technology, 2021, 391, 1-10.	4.2	6
7	Determination of Interfacial Concentration of a Contaminated Droplet from Shape Oscillation Damping. Physical Review Letters, 2020, 124, 194501.	7.8	11
8	Physical modeling of the dam-break flow of sedimenting suspensions. Physical Review Fluids, 2020, 5, .	2.5	4
9	Long-range hydrodynamic forces in liquid FM-AFM. Nanotechnology, 2020, 31, 455501.	2.6	2
10	A model for drop and bubble breakup frequency based on turbulence spectra. AICHE Journal, 2019, 65, 347-359.	3.6	31
11	Coalescence of Water Drops at an Oilâ€“Water Interface Loaded with Microparticles and Surfactants. Industrial & Engineering Chemistry Research, 2019, 58, 15573-15587.	3.7	10
12	Interfacial Dynamics and Rheology of a Crude-Oil Droplet Oscillating in Water at a High Frequency. Langmuir, 2019, 35, 9441-9455.	3.5	14
13	Sedimentation of gas-fluidized particles with random shape and size. Physical Review Fluids, 2019, 4, .	2.5	5
14	Fluctuations in inertial dense homogeneous suspensions. Physical Review Fluids, 2019, 4, .	2.5	5
15	Mixing mechanisms in a low-sheared inhomogeneous bubble column. Chemical Engineering Science, 2018, 186, 52-61.	3.8	7
16	Agitation, Mixing, and Transfers Induced by Bubbles. Annual Review of Fluid Mechanics, 2018, 50, 25-48.	25.0	131
17	Jump-to-contact instability: The nanoscale mechanism of droplet coalescence in air. Physical Review Fluids, 2018, 3, .	2.5	3
18	Numerical simulations of a rising drop with shape oscillations in the presence of surfactants. Physical Review Fluids, 2018, 3, .	2.5	14

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19	Experimental investigation of interfacial mass transfer mechanisms for a confined highâ€reynoldsâ€number bubble rising in a thin gap. AIChE Journal, 2017, 63, 2394-2408.	3.6	33
20	Near-field deformation of a liquid interface by atomic force microscopy. Physical Review E, 2017, 96, 012802.	2.1	3
21	Velocity fluctuations generated by the flow through a random array of spheres: a model of bubble-induced agitation. Journal of Fluid Mechanics, 2017, 823, 592-616.	3.4	13
22	Going beyond 20 Î¼m-sized channels for studying red blood cell phase separation in microfluidic bifurcations. Biomicrofluidics, 2016, 10, 034103.	2.4	36
23	Physical interpretation of probability density functions of bubble-induced agitation. Journal of Fluid Mechanics, 2016, 809, 240-263.	3.4	19
24	Time-resolved measurement of concentration fluctuations in a confined bubbly flow by LIF. International Journal of Multiphase Flow, 2016, 83, 153-161.	3.4	16
25	Scalar mixing in bubbly flows: Experimental investigation and diffusivity modelling. Chemical Engineering Science, 2016, 140, 114-122.	3.8	18
26	Mixing by bubble-induced turbulence. Journal of Fluid Mechanics, 2015, 776, 458-474.	3.4	53
27	Non-linear shape oscillations of rising drops and bubbles: Experiments and simulations. Physics of Fluids, 2015, 27, 123305.	4.0	21
28	Oscillations of a liquid bridge resulting from the coalescence of two droplets. Physics of Fluids, 2015, 27, 062103.	4.0	12
29	Dynamics and mass transfer of rising bubbles in a homogenous swarm at large gas volume fraction. Journal of Fluid Mechanics, 2015, 763, 254-285.	3.4	72
30	Coalescence of contaminated water drops at an oil/water interface: Influence of micro-particles. Colloids and Surfaces A: Physicochemical and Engineering Aspects, 2015, 482, 514-528.	4.7	24
31	On the computation of viscous terms for incompressible two-phase flows with Level Set/Ghost Fluid Method. Journal of Computational Physics, 2015, 301, 289-307.	3.8	72
32	Homogeneous swarm of high-Reynolds-number bubbles rising within a thin gap. PartÂ2. Liquid dynamics. Journal of Fluid Mechanics, 2014, 758, 508-521.	3.4	38
33	Image registration algorithm for molecular tagging velocimetry applied to unsteady flow in Hele-Shaw cell. Experimental Thermal and Fluid Science, 2013, 44, 897-904.	2.7	5
34	A model of bubble-induced turbulence based on large-scale wake interactions. Journal of Fluid Mechanics, 2013, 719, 362-387.	3.4	56
35	Effect of rising motion on the damped shape oscillations of drops and bubbles. Physics of Fluids, 2013, 25, .	4.0	26
36	Unsteady rising of clean bubble in low viscosity liquid. Bubble Science, Engineering & Technology, 2012, 4, 4-11.	0.2	8

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37	Dynamics of a high-Reynolds-number bubble rising within a thin gap. Journal of Fluid Mechanics, 2012, 707, 444-466.	3.4	65
38	Homogeneous swarm of high-Reynolds-number bubbles rising within a thin gap. Part 1. Bubble dynamics. Journal of Fluid Mechanics, 2012, 704, 211-231.	3.4	42
39	Wake-Induced Oscillatory Paths of Bodies Freely Rising or Falling in Fluids. Annual Review of Fluid Mechanics, 2012, 44, 97-121.	25.0	274
40	Velocimetry of red blood cells in microvessels by the dual-slit method: Effect of velocity gradients. Microvascular Research, 2012, 84, 249-261.	2.5	24
41	Shape oscillations of an oil drop rising in water: effect of surface contamination. Journal of Fluid Mechanics, 2012, 702, 533-542.	3.4	22
42	Modeling and simulation of inertial drop break-up in a turbulent pipe flow downstream of a restriction. International Journal of Multiphase Flow, 2012, 42, 1-8.	3.4	18
43	PIV with volume lighting in a narrow cell: An efficient method to measure large velocity fields of rapidly varying flows. Experimental Thermal and Fluid Science, 2011, 35, 1030-1037.	2.7	11
44	Experimental study of mass transfer in a dense bubble swarm. Chemical Engineering Science, 2011, 66, 3432-3440.	3.8	52
45	Theoretical model for kâ^'3 spectra in dispersed multiphase flows. Physics of Fluids, 2011, 23, .	4.0	38
46	Inertial modes of a periodically forced buoyant drop attached to a capillary. Physics of Fluids, 2011, 23, 102104.	4.0	14
47	Experimental characterization of the agitation generated by bubbles rising at high Reynolds number. Journal of Fluid Mechanics, 2010, 643, 509-539.	3.4	155
48	Attenuation of the wake of a sphere in an intense incident turbulence with large length scales. Physics of Fluids, 2010, 22, .	4.0	33
49	Dynamical Model for the Buoyancy-Driven Zigzag Motion of Oblate Bodies. Physical Review Letters, 2009, 102, 134505.	7.8	19
50	Sound generation on bubble coalescence following detachment. International Journal of Multiphase Flow, 2008, 34, 938-949.	3.4	47
51	Wake attenuation in large Reynolds number dispersed two-phase flows. Philosophical Transactions Series A, Mathematical, Physical, and Engineering Sciences, 2008, 366, 2177-2190.	3.4	40
52	Dynamics of axisymmetric bodies rising along a zigzag path. Journal of Fluid Mechanics, 2008, 606, 209-223.	3.4	35
53	Oscillatory motion and wake instability of freely rising axisymmetric bodies. Journal of Fluid Mechanics, 2007, 573, 479-502.	3.4	100
54	Dynamics of drop breakup in inhomogeneous turbulence at various volume fractions. Journal of Fluid Mechanics, 2007, 578, 85-94.	3.4	31

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55	Breakup of a drop in a liquidâ€“liquid pipe flow through an orifice. AICHE Journal, 2007, 53, 56-68.	3.6	58
56	Experimental investigation of a bioartificial capsule flowing in a narrow tube. Journal of Fluid Mechanics, 2006, 547, 149.	3.4	67
57	Mouvements oscillatoires de corps en ascension dans un fluide peu visqueux : l'effet du rapport de forme. Mecanique Et Industries, 2005, 6, 279-283.	0.2	0
58	Rates of transport through a capsule membrane to attain Donnan equilibrium. Journal of Colloid and Interface Science, 2003, 263, 202-212.	9.4	27
59	Velocity fluctuations in a homogeneous dilute dispersion of high-Reynolds-number rising bubbles. Journal of Fluid Mechanics, 2002, 453, 395-410.	3.4	72
60	On the rise of an ellipsoidal bubble in water: oscillatory paths and liquid-induced velocity. Journal of Fluid Mechanics, 2001, 440, 235-268.	3.4	241
61	THE MECHANISMS OF DEFORMATION AND BREAKUP OF DROPS AND BUBBLES. Multiphase Science and Technology, 2000, 12, 50.	0.5	42
62	Local measurements in turbulent bubbly flows. Nuclear Engineering and Design, 1998, 184, 319-327.	1.7	23
63	Oscillations and breakup of a bubble immersed in a turbulent field. Journal of Fluid Mechanics, 1998, 372, 323-355.	3.4	160
64	Diffusive turbulence in a confined jet experiment. Journal of Fluid Mechanics, 1997, 337, 233-261.	3.4	33
65	Direct numerical simulations of wake vortices in intense homogeneous turbulence. AIAA Journal, 1997, 35, 1030-1040.	2.6	5