FrÃ©dÃ©ric Risso

List of Publications by Year
in descending order

65 papers	2,546 citations	186265 28 h-index	189892 50 g-index
67 all docs	67 docs citations	67 times ranked	1600 citing authors

#	Article	IF	Citations
1	Wake-Induced Oscillatory Paths of Bodies Freely Rising or Falling in Fluids. Annual Review of Fluid Mechanics, 2012, 44, 97-121.	25.0	274
2	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
3	Oscillations and breakup of a bubble immersed in a turbulent field. Journal of Fluid Mechanics, 1998, 372, 323-355.	3.4	160
4	Experimental characterization of the agitation generated by bubbles rising at high Reynolds number. Journal of Fluid Mechanics, 2010, 643, 509-539.	3.4	155
5	Agitation, Mixing, and Transfers Induced by Bubbles. Annual Review of Fluid Mechanics, 2018, 50, 25-48.	25.0	131
6	Oscillatory motion and wake instability of freely rising axisymmetric bodies. Journal of Fluid Mechanics, 2007, 573, 479-502.	3.4	100
7	Velocity fluctuations in a homogeneous dilute dispersion of high-Reynolds-number rising bubbles. Journal of Fluid Mechanics, 2002, 453, 395-410.	3.4	72
8	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
9	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
10	Experimental investigation of a bioartificial capsule flowing in a narrow tube. Journal of Fluid Mechanics, 2006, 547, 149.	3.4	67
11	Dynamics of a high-Reynolds-number bubble rising within a thin gap. Journal of Fluid Mechanics, 2012, 707, 444-466.	3.4	65
12	Breakup of a drop in a liquidâ€“liquid pipe flow through an orifice. AIChE Journal, 2007, 53, 56-68.	3.6	58
13	A model of bubble-induced turbulence based on large-scale wake interactions. Journal of Fluid Mechanics, 2013, 719, 362-387.	3.4	56
14	Mixing by bubble-induced turbulence. Journal of Fluid Mechanics, 2015, 776, 458-474.	3.4	53
15	Experimental study of mass transfer in a dense bubble swarm. Chemical Engineering Science, 2011, 66, 3432-3440.	3.8	52
16	Sound generation on bubble coalescence following detachment. International Journal of Multiphase Flow, 2008, 34, 938-949.	3.4	47
17	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
18	THE MECHANISMS OF DEFORMATION AND BREAKUP OF DROPS AND BUBBLES. Multiphase Science and Technology, 2000, 12, 50.	0.5	42

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19	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
20	Theoretical model for kâ˜'3 spectra in dispersed multiphase flows. Physics of Fluids, 2011, 23, .	4.0	38
21	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
22	Going beyond 20 <i>Î¼</i>m-sized channels for studying red blood cell phase separation in microfluidic bifurcations. Biomicrofluidics, 2016, 10, 034103.	2.4	36
23	Dynamics of axisymmetric bodies rising along a zigzag path. Journal of Fluid Mechanics, 2008, 606, 209-223.	3.4	35
24	Diffusive turbulence in a confined jet experiment. Journal of Fluid Mechanics, 1997, 337, 233-261.	3.4	33
25	Attenuation of the wake of a sphere in an intense incident turbulence with large length scales. Physics of Fluids, 2010, 22, .	4.0	33
26	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
27	Dynamics of drop breakup in inhomogeneous turbulence at various volume fractions. Journal of Fluid Mechanics, 2007, 578, 85-94.	3.4	31
28	A model for drop and bubble breakup frequency based on turbulence spectra. AIChE Journal, 2019, 65, 347-359.	3.6	31
29	Rates of transport through a capsule membrane to attain Donnan equilibrium. Journal of Colloid and Interface Science, 2003, 263, 202-212.	9.4	27
30	Effect of rising motion on the damped shape oscillations of drops and bubbles. Physics of Fluids, 2013, 25, .	4.0	26
31	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
32	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
33	Local measurements in turbulent bubbly flows. Nuclear Engineering and Design, 1998, 184, 319-327.	1.7	23
34	Shape oscillations of an oil drop rising in water: effect of surface contamination. Journal of Fluid Mechanics, 2012, 702, 533-542.	3.4	22
35	Non-linear shape oscillations of rising drops and bubbles: Experiments and simulations. Physics of Fluids, 2015, 27, 123305.	4.0	21
36	Dynamical Model for the Buoyancy-Driven Zigzag Motion of Oblate Bodies. Physical Review Letters, 2009, 102, 134505.	7.8	19

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37	Physical interpretation of probability density functions of bubble-induced agitation. Journal of Fluid Mechanics, 2016, 809, 240-263.	3.4	19
38	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
39	Scalar mixing in bubbly flows: Experimental investigation and diffusivity modelling. Chemical Engineering Science, 2016, 140, 114-122.	3.8	18
40	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
41	Inertial modes of a periodically forced buoyant drop attached to a capillary. Physics of Fluids, 2011, 23, 102104.	4.0	14
42	Interfacial Dynamics and Rheology of a Crude-Oil Droplet Oscillating in Water at a High Frequency. Langmuir, 2019, 35, 9441-9455.	3.5	14
43	Numerical simulations of a rising drop with shape oscillations in the presence of surfactants. Physical Review Fluids, 2018, 3, .	2.5	14
44	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
45	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
46	Oscillations of a liquid bridge resulting from the coalescence of two droplets. Physics of Fluids, 2015, 27, 062103.	4.0	12
47	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
48	Determination of Interfacial Concentration of a Contaminated Droplet from Shape Oscillation Damping. Physical Review Letters, 2020, 124, 194501.	7.8	11
49	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
50	Unsteady rising of clean bubble in low viscosity liquid. Bubble Science, Engineering & Technology, 2012, 4, 4-11.	0.2	8
51	Mixing mechanisms in a low-sheared inhomogeneous bubble column. Chemical Engineering Science, 2018, 186, 52-61.	3.8	7
52	Bridge expansion after coalescence of two droplets in air: Inertial regime. Physics of Fluids, 2021, 33, 062112.	4.0	7
53	On the fluidization/sedimentation velocity of a homogeneous suspension in a low-inertia fluid. Powder Technology, 2021, 391, 1-10.	4.2	6
54	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

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55	Sedimentation of gas-fluidized particles with random shape and size. Physical Review Fluids, 2019, 4, .	2.5	5
56	Fluctuations in inertial dense homogeneous suspensions. Physical Review Fluids, 2019, 4, .	2.5	5
57	Direct numerical simulations of wake vortices in intense homogeneous turbulence. AIAA Journal, 1997, 35, 1030-1040.	2.6	5
58	Physical modeling of the dam-break flow of sedimenting suspensions. Physical Review Fluids, 2020, 5, .	2.5	4
59	Near-field deformation of a liquid interface by atomic force microscopy. Physical Review E, 2017, 96, 012802.	2.1	3
60	Jump-to-contact instability: The nanoscale mechanism of droplet coalescence in air. Physical Review Fluids, 2018, 3, .	2.5	3
61	Prediction of size distribution in dairy cream homogenization. Journal of Food Engineering, 2022, 324, 110973.	5.2	3
62	Numerical simulations of the agitation generated by coarse-grained bubbles moving at large Reynolds number. Journal of Fluid Mechanics, 2021, 926, .	3.4	2
63	Long-range hydrodynamic forces in liquid FM-AFM. Nanotechnology, 2020, 31, 455501.	2.6	2
64	Statistics of velocity fluctuations in a homogeneous liquid fluidized bed. Physical Review Fluids, 2021, 6, .	2.5	0
65	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