

Roberto Zenit

List of Publications by Year in Descending Order

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The third column is the impact factor (IF) of the journal, and the fourth column is the number of citations of the article.

105
papers

2,391
citations

28
h-index

46
g-index

112
ext. papers

2,766
ext. citations

3.3
avg, IF

5.27
L-index

#	Paper	IF	Citations
105	Force and torque-free helical tail robot to study low Reynolds number micro-organism swimming.. <i>Review of Scientific Instruments</i> , 2022 , 93, 044103	1.7	0
104	Coiling of a viscoelastic fluid filament. <i>Physical Review Fluids</i> , 2021 , 6,	2.8	4
103	Front-back asymmetry controls the impact of viscoelasticity on helical swimming. <i>Physical Review Fluids</i> , 2021 , 6,	2.8	3
102	The dynamics of compound drops at high Reynolds numbers: Drag, shape, and trajectory. <i>International Journal of Multiphase Flow</i> , 2021 , 142, 103699	3.6	0
101	Lifetime of Surface Bubbles in Surfactant Solutions. <i>Langmuir</i> , 2020 , 36, 7749-7764	4	7
100	Bubbles determine the amount of alcohol in Mezcal. <i>Scientific Reports</i> , 2020 , 10, 11014	4.9	2
99	Viscoelastic propulsion of a rotating dumbbell. <i>Microfluidics and Nanofluidics</i> , 2019 , 23, 1	2.8	7
98	Experimental study of the effect of wettability on the relative permeability for air/water flow through porous media. <i>International Journal of Multiphase Flow</i> , 2019 , 120, 103091	3.6	9
97	Pollock avoided hydrodynamic instabilities to paint with his dripping technique. <i>PLoS ONE</i> , 2019 , 14, e0223706	3.7	2
96	Drag coefficient for a sedimenting and rotating sphere in a viscoelastic fluid. <i>Physical Review Fluids</i> , 2019 , 4,	2.8	12
95	Self-propulsion of a helical swimmer in granular matter. <i>Physical Review Fluids</i> , 2019 , 4,	2.8	3
94	Some fluid mechanical aspects of artistic painting. <i>Physical Review Fluids</i> , 2019 , 4,	2.8	4
93	Sliding motion of a bubble against an inclined wall from moderate to high bubble Reynolds number. <i>Physical Review Fluids</i> , 2019 , 4,	2.8	2
92	Using CFD and PIV to investigate rotating cage-related hydrodynamics for CO2 corrosion studies analyzing 2-, 4- and 8-coupons setups. <i>Anti-Corrosion Methods and Materials</i> , 2019 , 66, 802-811	0.8	
91	Hydrodynamic Interactions Among Bubbles, Drops, and Particles in Non-Newtonian Liquids. <i>Annual Review of Fluid Mechanics</i> , 2018 , 50, 505-534	22	63
90	Effect of the Fluid-Dynamic Structure on the Mixing Time of a Ladle Furnace. <i>Steel Research International</i> , 2018 , 89, 1700281	1.6	12
89	On the maximum operating frequency of prosthetic heart valves. <i>Biomedical Physics and Engineering Express</i> , 2018 , 4, 047007	1.5	1

88	Effect of Separation Angle and Nozzle Radial Position on Mixing Time in Ladles with Two Nozzles. <i>Journal of Applied Fluid Mechanics</i> , 2018 , 11, 11-20	1.5	7
87	Encapsulation of Droplets Using Cusp Formation behind a Drop Rising in a Non-Newtonian Fluid. <i>Fluids</i> , 2018 , 3, 54	1.6	1
86	The fluid mechanics of bubbly drinks. <i>Physics Today</i> , 2018 , 71, 44-50	0.9	15
85	The lifespan of clusters in confined bubbly liquids. <i>International Journal of Multiphase Flow</i> , 2018 , 106, 138-146	3.6	1
84	Experimental study on laminar flow over two confined isothermal cylinders in tandem during mixed convection. <i>International Journal of Thermal Sciences</i> , 2017 , 115, 176-196	4.1	11
83	The effect of column tilt on flow homogeneity and particle agitation in a liquid fluidized bed. <i>International Journal of Multiphase Flow</i> , 2017 , 92, 50-60	3.6	3
82	A new model for the computation of the formation factor of core rocks. <i>Journal of Structural Geology</i> , 2017 , 97, 189-198	3	4
81	Topological invariants can be used to quantify complexity in abstract paintings. <i>Knowledge-Based Systems</i> , 2017 , 126, 48-55	7.3	3
80	Helical propulsion in shear-thinning fluids. <i>Journal of Fluid Mechanics</i> , 2017 , 812,	3.7	30
79	Effects of inertia and turbulence on rheological measurements of neutrally buoyant suspensions. <i>Journal of Fluid Mechanics</i> , 2017 , 811, 525-543	3.7	8
78	Hydrodynamic Characterization of Three Axial Impellers under Gassed and Ungassed Conditions. <i>Journal of Chemical Engineering of Japan</i> , 2016 , 49, 894-903	0.8	1
77	Experimental study of the deflections of curved plates exposed to pulsating cross-flows. <i>Acta Mechanica</i> , 2016 , 227, 3621-3637	2.1	
76	The flow inside shaking flasks and its implication for mycelial cultures. <i>Chemical Engineering Science</i> , 2016 , 152, 163-171	4.4	9
75	Drift by air bubbles crossing an interface of a stratified medium at moderate Reynolds number. <i>International Journal of Multiphase Flow</i> , 2016 , 85, 258-266	3.6	11
74	A space-fractional model of thermo-electromagnetic wave propagation in anisotropic media. <i>Applied Thermal Engineering</i> , 2016 , 93, 529-536	5.8	5
73	Conditions for the sliding-bouncing transition for the interaction of a bubble with an inclined wall. <i>Physical Review Fluids</i> , 2016 , 1,	2.8	7
72	Effect of the curvature of elastic plates on the evolution of pulsatile flow fields. <i>Journal of Fluids and Structures</i> , 2015 , 56, 177-189	3.1	2
71	Negative vortices: The formation of vortex rings with reversed rotation in viscoelastic liquids. <i>Physics of Fluids</i> , 2015 , 27, 051703	4.4	2

70	Viscous Filament Fragmentation in a Turbulent Flow Inside a Stirred Tank. <i>Chemical Engineering Communications</i> , 2015 , 202, 1251-1260	2.2	7
69	Complex fluids affect low-Reynolds number locomotion in a kinematic-dependent manner. <i>Experiments in Fluids</i> , 2015 , 56, 1	2.5	29
68	A hydrodynamic description of the flow behavior in shaken flasks. <i>Biochemical Engineering Journal</i> , 2015 , 99, 61-66	4.2	15
67	A hydrodynamic instability is used to create aesthetically appealing patterns in painting. <i>PLoS ONE</i> , 2015 , 10, e0126135	3.7	8
66	Viscous pumping inspired by flexible propulsion. <i>Bioinspiration and Biomimetics</i> , 2014 , 9, 036007	2.6	5
65	Experimental study of a model valve with flexible leaflets in a pulsatile flow. <i>Journal of Fluid Mechanics</i> , 2014 , 739, 338-362	3.7	12
64	Compact bubble clusters in Newtonian and non-Newtonian liquids. <i>Physics of Fluids</i> , 2014 , 26, 053101	4.4	12
63	Sedimentation of a rotating sphere in a power-law fluid. <i>Journal of Non-Newtonian Fluid Mechanics</i> , 2014 , 213, 27-30	2.7	5
62	Interaction of a vortex ring with a natural convective layer. <i>Physics of Fluids</i> , 2014 , 26, 083602	4.4	1
61	A conjugate thermo-electric model for a composite medium. <i>PLoS ONE</i> , 2014 , 9, e97895	3.7	1
60	Mathematical Modeling of Fluid Flow in a Water Physical Model of an Aluminum Degassing Ladle Equipped with an Impeller-Injector. <i>Metallurgical and Materials Transactions B: Process Metallurgy and Materials Processing Science</i> , 2013 , 44, 423-435	2.5	15
59	Physical Modeling of Fluid Flow in Ladles of Aluminum Equipped with Impeller and Gas Purging For Degassing. <i>Metallurgical and Materials Transactions B: Process Metallurgy and Materials Processing Science</i> , 2013 , 44, 974-983	2.5	8
58	The formation of vortex rings in shear-thinning liquids. <i>Journal of Non-Newtonian Fluid Mechanics</i> , 2013 , 194, 1-13	2.7	16
57	Vortex ring formation for low Re numbers. <i>Acta Mechanica</i> , 2013 , 224, 383-397	2.1	18
56	Reduction of compaction force in a confined bidisperse granular media. <i>Physical Review E</i> , 2013 , 87, 052210	2.1	3
55	Fluid elasticity increases the locomotion of flexible swimmers. <i>Physics of Fluids</i> , 2013 , 25, 031701	4.4	64
54	Power spectral distributions of pseudo-turbulent bubbly flows. <i>Physics of Fluids</i> , 2013 , 25, 043303	4.4	27
53	Pseudoturbulence in Bubbly and Transition Flow Regimes. <i>Environmental Science and Engineering</i> , 2013 , 217-224	0.2	

52	A criterion for the transition from wall to core peak gas volume fraction distributions in bubbly flows. <i>International Journal of Multiphase Flow</i> , 2012 , 43, 56-61	3.6	12
51	Study of the properties of bubbly flows in Boger-type fluids. <i>Journal of Non-Newtonian Fluid Mechanics</i> , 2012 , 175-176, 1-9	2.7	18
50	On the hydrodynamics characterization of the straight Maxblend [®] impeller with Newtonian fluids. <i>Chemical Engineering Research and Design</i> , 2012 , 90, 1117-1128	5.5	15
49	Computer simulations of the collapse of columns formed by elongated grains. <i>Physical Review E</i> , 2012 , 85, 061304	2.4	13
48	On the deformation of gas bubbles in liquids. <i>Physics of Fluids</i> , 2012 , 24, 043303	4.4	95
47	Note: design of a novel rotating magnetic field device. <i>Review of Scientific Instruments</i> , 2012 , 83, 066109	1.7	12
46	Microbubble generation using fiber optic tips coated with nanoparticles. <i>Optics Express</i> , 2012 , 20, 8732-403	4.3	21
45	Bubble Clusters in Associative Polymers. <i>Environmental Science and Engineering</i> , 2012 , 497-498	0.2	1
44	On the Modeling Strategies for Hydrodynamic Slugging in Conduits of General Shapes and Layouts. <i>Environmental Science and Engineering</i> , 2012 , 313-318	0.2	
43	Application of the Euler-Lagrange Method to Model Developed Hydrodynamic Slugs in Conduits. <i>Journal of Fluids Engineering, Transactions of the ASME</i> , 2011 , 133,	2.1	4
42	Effect of eccentricity on the pumping capacity in an unbaffled vessel. <i>Canadian Journal of Chemical Engineering</i> , 2011 , 89, 1051-1058	2.3	6
41	Collisions in a liquid fluidized bed. <i>International Journal of Multiphase Flow</i> , 2011 , 37, 695-705	3.6	29
40	Mathematical and physical simulation of the interaction between a gas jet and a liquid free surface. <i>Applied Mathematical Modelling</i> , 2011 , 35, 4991-5005	4.5	35
39	Bubble cluster formation in shear-thinning inelastic bubbly columns. <i>Journal of Non-Newtonian Fluid Mechanics</i> , 2011 , 166, 32-41	2.7	25
38	Hydrodynamic interaction between a pair of bubbles ascending in shear-thinning inelastic fluids. <i>Journal of Non-Newtonian Fluid Mechanics</i> , 2011 , 166, 118-132	2.7	48
37	Fluid velocity fluctuations in a collision of a sphere with a wall. <i>Physics of Fluids</i> , 2011 , 23, 063301	4.4	5
36	Study of the velocity and strain fields in the flow through prosthetic heart valves. <i>Journal of Biomechanical Engineering</i> , 2011 , 133, 121003	2.1	5
35	Mathematical Modeling of Impingement of an Air Jet in a Liquid Bath. <i>Materials Research Society Symposia Proceedings</i> , 2010 , 1276, 1		

34	Evaluation of drag correction factor for spheres settling in associative polymers. <i>Rheologica Acta</i> , 2010 , 49, 979-984	2.3	9
33	The micromechanical behavior of lyophilized glutaraldehyde-treated bovine pericardium under uniaxial tension. <i>Journal of the Mechanical Behavior of Biomedical Materials</i> , 2010 , 3, 640-6	4.1	13
32	Modelado físico de la incidencia de un chorro de aire sobre una superficie de agua. <i>Revista De Metalurgia</i> , 2010 , 46, 421-434	0.4	1
31	The coefficient of restitution for air bubbles colliding against solid walls in viscous liquids. <i>Physics of Fluids</i> , 2009 , 21, 083306	4.4	50
30	Measurements of the streamwise vorticity in the wake of an oscillating bubble. <i>International Journal of Multiphase Flow</i> , 2009 , 35, 195-203	3.6	46
29	On the flow of associative polymers past a sphere: Evaluation of negative wake criteria. <i>Physics of Fluids</i> , 2009 , 21, 033104	4.4	11
28	Path instability of rising spheroidal air bubbles: A shape-controlled process. <i>Physics of Fluids</i> , 2008 , 20, 061702	4.4	84
27	Heat Transfer Resulting From the Interaction of a Vortex Pair With a Heated Wall. <i>Journal of Heat Transfer</i> , 2008 , 130,	1.8	6
26	The effect of confinement on the motion of a single clean bubble. <i>Journal of Fluid Mechanics</i> , 2008 , 616, 419-443	3.7	29
25	Increased mobility of bidisperse granular avalanches. <i>Journal of Fluid Mechanics</i> , 2007 , 593, 475-504	3.7	56
24	Motion of a particle near a rough wall in a viscous shear flow. <i>Journal of Fluid Mechanics</i> , 2007 , 570, 431-453	3.7	43
23	Measurement of pseudoturbulence intensity in monodispersed bubbly liquids for 10. <i>Physics of Fluids</i> , 2007 , 19, 103302	4.4	54
22	A note on the modelling of the bouncing of spherical drops or solid spheres on a wall in viscous fluid. <i>Chemical Engineering Science</i> , 2006 , 61, 3543-3549	4.4	54
21	A study of velocity discontinuity for single air bubbles rising in an associative polymer. <i>Physics of Fluids</i> , 2006 , 18, 121510	4.4	31
20	The unsteady drag force on a cylinder immersed in a dilute granular flow. <i>Physics of Fluids</i> , 2006 , 18, 043301	4.4	27
19	Computer simulations of the collapse of a granular column. <i>Physics of Fluids</i> , 2005 , 17, 031703	4.4	86
18	Velocity fluctuations resulting from the interaction of a bubble with a vertical wall. <i>Physics of Fluids</i> , 2005 , 17, 098106	4.4	16
17	Clustering in high Re monodispersed bubbly flows. <i>Physics of Fluids</i> , 2005 , 17, 091701	4.4	33

16	Shear flow of a suspension of bubbles rising in an inclined channel. <i>Journal of Fluid Mechanics</i> , 2004 , 515, 261-292	3.7	9
15	Dense granular flow around an immersed cylinder. <i>Physics of Fluids</i> , 2003 , 15, 1622	4.4	124
14	Measurement of the temperature rise in non-Newtonian oscillatory pipe flows. <i>Journal of Non-Newtonian Fluid Mechanics</i> , 2003 , 109, 157-176	2.7	10
13	The flow of non-Newtonian fluids around bubbles and its connection to the jump discontinuity. <i>Journal of Non-Newtonian Fluid Mechanics</i> , 2003 , 111, 199-209	2.7	48
12	Dilute granular flow around an immersed cylinder. <i>Physics of Fluids</i> , 2003 , 15, 3318-3330	4.4	80
11	Compaction force in a confined granular column. <i>Physical Review E</i> , 2003 , 68, 051301	2.4	9
10	Impedance probe to measure local gas volume fraction and bubble velocity in a bubbly liquid. <i>Review of Scientific Instruments</i> , 2003 , 74, 2817-2827	1.7	12
9	Revisiting the 1954 suspension experiments of R. A. Bagnold. <i>Journal of Fluid Mechanics</i> , 2002 , 452, 1-24	3.7	101
8	Particle-wall collisions in a viscous fluid. <i>Journal of Fluid Mechanics</i> , 2001 , 433, 329-346	3.7	252
7	Measurements of the average properties of a suspension of bubbles rising in a vertical channel. <i>Journal of Fluid Mechanics</i> , 2001 , 429, 307-342	3.7	106
6	GRAIN DRYING AND AERATION IN A SOLAR HEXAGONAL SILO. <i>Particulate Science and Technology</i> , 2001 , 19, 45-65	2	
5	Solid fraction fluctuations in solid-liquid flows. <i>International Journal of Multiphase Flow</i> , 2000 , 26, 763-783	3.6	31
4	Mechanics of Immersed Particle Collisions. <i>Journal of Fluids Engineering, Transactions of the ASME</i> , 1999 , 121, 179-184	2.1	28
3	The impulsive motion of a liquid resulting from a particle collision. <i>Journal of Fluid Mechanics</i> , 1998 , 375, 345-361	3.7	8
2	Collisional particle pressure measurements in solid-liquid flows. <i>Journal of Fluid Mechanics</i> , 1997 , 353, 261-283	3.7	71
1	On the Direct and Radiated Components of the Collisional Particle Pressure in Liquid-Solid Flows. <i>Flow, Turbulence and Combustion</i> , 1997 , 58, 305-317		3