

Cristian Marchioli

List of Publications by Year in descending order

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Version: 2024-02-01

55
papers

2,523
citations

201674

27
h-index

189892

50
g-index

55
all docs

55
docs citations

55
times ranked

1146
citing authors

#	ARTICLE	IF	CITATIONS
1	Mechanisms for particle transfer and segregation in a turbulent boundary layer. <i>Journal of Fluid Mechanics</i> , 2002, 468, 283-315.	3.4	386
2	Physics and modelling of turbulent particle deposition and entrainment: Review of a systematic study. <i>International Journal of Multiphase Flow</i> , 2009, 35, 827-839.	3.4	205
3	Statistics of particle dispersion in direct numerical simulations of wall-bounded turbulence: Results of an international collaborative benchmark test. <i>International Journal of Multiphase Flow</i> , 2008, 34, 879-893.	3.4	195
4	Orientation, distribution, and deposition of elongated, inertial fibers in turbulent channel flow. <i>Physics of Fluids</i> , 2010, 22, .	4.0	168
5	Influence of gravity and lift on particle velocity statistics and transfer rates in turbulent vertical channel flow. <i>International Journal of Multiphase Flow</i> , 2007, 33, 227-251.	3.4	118
6	Direct numerical simulation of particle wall transfer and deposition in upward turbulent pipe flow. <i>International Journal of Multiphase Flow</i> , 2003, 29, 1017-1038.	3.4	115
7	Modulation of turbulence in forced convection by temperature-dependent viscosity. <i>Journal of Fluid Mechanics</i> , 2012, 697, 150-174.	3.4	109
8	Some issues concerning large-eddy simulation of inertial particle dispersion in turbulent bounded flows. <i>Physics of Fluids</i> , 2008, 20, .	4.0	88
9	Large-eddy simulation of turbulent dispersed flows: a review of modelling approaches. <i>Acta Mechanica</i> , 2017, 228, 741-771.	2.1	79
10	Characterization of near-wall accumulation regions for inertial particles in turbulent boundary layers. <i>Physics of Fluids</i> , 2005, 17, 098101.	4.0	69
11	Rotation statistics of fibers in wall shear turbulence. <i>Acta Mechanica</i> , 2013, 224, 2311-2329.	2.1	58
12	Slip velocity of rigid fibers in turbulent channel flow. <i>Physics of Fluids</i> , 2014, 26, .	4.0	57
13	Mechanisms for deposition and resuspension of heavy particles in turbulent flow over wavy interfaces. <i>Physics of Fluids</i> , 2006, 18, 025102.	4.0	55
14	Direct numerical simulation of turbulent heat transfer modulation in micro-dispersed channel flow. <i>Acta Mechanica</i> , 2008, 195, 305-326.	2.1	47
15	Stokes number effects on particle slip velocity in wall-bounded turbulence and implications for dispersion models. <i>Physics of Fluids</i> , 2012, 24, .	4.0	44
16	Particle and droplet deposition in turbulent swirled pipe flow. <i>International Journal of Multiphase Flow</i> , 2013, 56, 172-183.	3.4	43
17	On the relative rotational motion between rigid fibers and fluid in turbulent channel flow. <i>Physics of Fluids</i> , 2016, 28, .	4.0	43
18	Statistics of velocity and preferential accumulation of micro-particles in boundary layer turbulence. <i>Nuclear Engineering and Design</i> , 2005, 235, 1239-1249.	1.7	42

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19	Intrinsic filtering errors of Lagrangian particle tracking in LES flow fields. <i>Physics of Fluids</i> , 2012, 24, .	4.0	41
20	Simple and accurate scheme for fluid velocity interpolation for Eulerian-Lagrangian computation of dispersed flows in 3D curvilinear grids. <i>Computers and Fluids</i> , 2007, 36, 1187-1198.	2.5	38
21	Appraisal of energy recovering sub-grid scale models for large-eddy simulation of turbulent dispersed flows. <i>Acta Mechanica</i> , 2008, 201, 277-296.	2.1	38
22	Turbulence modulation and microbubble dynamics in vertical channel flow. <i>International Journal of Multiphase Flow</i> , 2012, 42, 80-95.	3.4	36
23	Numerical simulations of aggregate breakup in bounded and unbounded turbulent flows. <i>Journal of Fluid Mechanics</i> , 2015, 766, 104-128.	3.4	36
24	Sediment transport in steady turbulent boundary layers: Potentials, limitations, and perspectives for Lagrangian tracking in DNS and LES. <i>Advances in Water Resources</i> , 2012, 48, 18-30.	3.8	35
25	Lagrangian filtered density function for LES-based stochastic modelling of turbulent particle-laden flows. <i>Physics of Fluids</i> , 2016, 28, .	4.0	34
26	Particle dispersion and wall-dependent turbulent flow scales: implications for local equilibrium models. <i>Journal of Turbulence</i> , 2006, 7, N60.	1.4	30
27	Time persistence of floating-particle clusters in free-surface turbulence. <i>Physical Review E</i> , 2013, 88, 033003.	2.1	30
28	Orientation, distribution, and deformation of inertial flexible fibers in turbulent channel flow. <i>Acta Mechanica</i> , 2019, 230, 597-621.	2.1	30
29	Anisotropy in pair dispersion of inertial particles in turbulent channel flow. <i>Physics of Fluids</i> , 2012, 24, .	4.0	23
30	Changes in the board of editors. <i>Acta Mechanica</i> , 2018, 229, 1-1.	2.1	19
31	Deformation of flexible fibers in turbulent channel flow. <i>Meccanica</i> , 2020, 55, 343-356.	2.0	19
32	Turbulent breakage of ductile aggregates. <i>Physical Review E</i> , 2015, 91, 053003.	2.1	17
33	Thermal stratification hinders gyrotactic micro-organism rising in free-surface turbulence. <i>Physics of Fluids</i> , 2017, 29, 053302.	4.0	17
34	Application limits of Jeffery's theory for elongated particle torques in turbulence: a DNS assessment. <i>Acta Mechanica</i> , 2018, 229, 827-839.	2.1	17
35	Particle resuspension by a periodically forced impinging jet. <i>Journal of Fluid Mechanics</i> , 2017, 820, 284-311.	3.4	16
36	Influence of added mass on anomalous high rise velocity of light particles in cellular flow field: A note on the paper by Maxey (1987). <i>Physics of Fluids</i> , 2007, 19, 098101.	4.0	15

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37	Particle tracking in LES flow fields: conditional Lagrangian statistics of filtering error. <i>Journal of Turbulence</i> , 2014, 15, 22-33.	1.4	14
38	Wind effect on gyrotactic micro-organism surfacing in free-surface turbulence. <i>Advances in Water Resources</i> , 2019, 129, 328-337.	3.8	12
39	Time behavior of heat fluxes in thermally coupled turbulent dispersed particle flows. <i>Acta Mechanica</i> , 2011, 218, 367-373.	2.1	11
40	Particle capture by drops in turbulent flow. <i>Physical Review Fluids</i> , 2021, 6, .	2.5	11
41	Role of large-scale advection and small-scale turbulence on vertical migration of gyrotactic swimmers. <i>Physical Review Fluids</i> , 2019, 4, .	2.5	10
42	Interface topology and evolution of particle patterns on deformable drops in turbulence. <i>Journal of Fluid Mechanics</i> , 2022, 933, .	3.4	8
43	Settling tracer spheroids in vertical turbulent channel flows. <i>International Journal of Multiphase Flow</i> , 2019, 118, 173-182.	3.4	7
44	Effect of roughness on elongated particles in turbulent channel flow. <i>International Journal of Multiphase Flow</i> , 2022, 152, 104065.	3.4	7
45	On shear lift force modelling for non-spherical particles in turbulent flows. <i>AIP Conference Proceedings</i> , 2013, , .	0.4	6
46	Drag Reduction in Turbulent Flows by Polymer and Fiber Additives. <i>KONA Powder and Particle Journal</i> , 2021, 38, 64-81.	1.7	6
47	Shear Effects on Scalar Transport in Double Diffusive Convection1. <i>Journal of Fluids Engineering, Transactions of the ASME</i> , 2020, 142, .	1.5	5
48	Physics and Modelling of Particle Deposition and Resuspension in Wall-Bounded Turbulence. <i>CISM International Centre for Mechanical Sciences, Courses and Lectures</i> , 2017, , 151-208.	0.6	4
49	On the Error Estimate in Sub-Grid Models for Particles in Turbulent Flows. <i>ERCOFTAC Series</i> , 2011, , 171-176.	0.1	3
50	Benchmark test on particle-laden channel flow with point-particle LES. <i>ERCOFTAC Series</i> , 2011, , 177-182.	0.1	3
51	Accuracy of bed-load transport models in eddy-resolving simulations. <i>International Journal of Multiphase Flow</i> , 2021, 141, 103676.	3.4	2
52	Special issue on finite-size particles, drops and bubbles in fluid flows: advances in modelling and simulations. <i>Acta Mechanica</i> , 2019, 230, 381-386.	2.1	1
53	Influence of Particle Anisotropy and Motility on Preferential Concentration in Turbulence. <i>Notes on Numerical Fluid Mechanics and Multidisciplinary Design</i> , 2021, , 52-65.	0.3	1
54	Editorial: Review and Perspective on the Soft Matter Modeling of Cellular Mechanobiology. <i>Acta Mechanica</i> , 2017, 228, 4093-4093.	2.1	0

#	ARTICLE	IF	CITATIONS
55	Films over topography: from creeping flow to linear stability, theory and experiments, a review. Acta Mechanica, 2018, 229, 1451-1451.	2.1	0