Gaetano Sardina

List of Publications by Year
in descending order

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Version: 2024-02-01

56	1,227	394421	361022
papers	citations	19 h-index	35 g-index

58	58	58	836
all docs	docs citations	times ranked	citing authors

#	Article	IF	Citations
1	Solids back-mixing in the transport zone of circulating fluidized bed boilers. Chemical Engineering Journal, 2022, 428, 130976.	12.7	7
2	Modelling the direct virus exposure risk associated with respiratory events. Journal of the Royal Society Interface, 2022, 19, 20210819.	3.4	15
3	A multiscale methodology for small-scale bubble dynamics in turbulence. International Journal of Multiphase Flow, 2022, 150, 103976.	3.4	2
4	Assessment of hindered diffusion in arbitrary geometries using a multiphase DNS framework. Chemical Engineering Science, 2021, 230, 116074.	3.8	2
5	Key parameters for droplet evaporation and mixing at the cloud edge. Quarterly Journal of the Royal Meteorological Society, 2021, 147, 2160-2172.	2.7	5
6	A hydrodynamic basis for off-axis Brownian diffusion under intermediate confinements in micro-channels. International Journal of Multiphase Flow, 2021, 143, 103772.	3.4	2
7	The Knudsen Paradox in Micro-Channel Poiseuille Flows with a Symmetric Particle. Applied Sciences (Switzerland), 2021, 11, 351.	2.5	4
8	Water transport and absorption in pharmaceutical tablets â€“ a numerical study. Meccanica, 2020, 55, 421-433.	2.0	8
9	Laser-induced vapour bubble as a means for crystal nucleation in supersaturated solutionsâ€”Formulation of a numerical framework. Experimental and Computational Multiphase Flow, 2019, 1, 242-254.	3.9	3
10	A continuum-based multiphase DNS method for studying the Brownian dynamics of soot particles in a rarefied gas. Chemical Engineering Science, 2019, 210, 115229.	3.8	6
11	Assessing the ability of the Eulerian-Eulerian and the Eulerian-Lagrangian frameworks to capture meso-scale dynamics in bubbly flows. Chemical Engineering Science, 2019, 201, 58-73.	3.8	8
12	On the time scales and structure of LagrangianÂintermittency in homogeneous isotropic turbulence. Journal of Fluid Mechanics, 2019, 867, 438-481.	3.4	4
13	Role of large-scale advection and small-scale turbulence on vertical migration of gyrotactic swimmers. Physical Review Fluids, 2019, 4, .	2.5	10
14	Broadening of Cloud Droplet Size Spectra by Stochastic Condensation: Effects of Mean Updraft Velocity and CCN Activation. Journals of the Atmospheric Sciences, 2018, 75, 451-467.	1.7	24
15	Direct and Large Eddy Simulations of Droplet Condensation in Turbulent Warm Clouds. ERCOFTAC Series, 2018, , 475-481.	0.1	0
16	Buoyancy-Driven Flow through a Bed of Solid Particles Produces a New Form of Rayleigh-Taylor Turbulence. Physical Review Letters, 2018, 121, 224501.	7.8	9
17	Sedimentation of inertia-less prolate spheroids in homogenous isotropic turbulence with application to non-motile phytoplankton. Journal of Fluid Mechanics, 2017, 831, 655-674.	3.4	38
18	Preface of the â€œSymposium on Advanced Engineering Systems and Computer Applications: Theory and Practiceâ€• AIP Conference Proceedings, 2016, , .	0.4	1

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19	Reduced particle settling speed in turbulence. Journal of Fluid Mechanics, 2016, 808, 153-167.	3.4	39
20	Particle transport in turbulent curved pipe flow. Journal of Fluid Mechanics, 2016, 793, 248-279.	3.4	32
21	An efficient-high performance code for particle transport in homogeneous turbulence. AIP Conference Proceedings, 2016, , .	0.4	1
22	Interaction between turbulent structures and particles in roughened channel. International Journal of Multiphase Flow, 2016, 78, 117-131.	3.4	40
23	Exact regularized point particle method for multiphase flows in the two-way couplingÂregime. Journal of Fluid Mechanics, 2015, 773, 520-561.	3.4	108
24	Continuous Growth of Droplet Size Variance due to Condensation in Turbulent Clouds. Physical Review Letters, 2015, 115, 184501.	7.8	71
25	Transition delay and its implications for drag reduction in particle-laden channel flow. AIP Conference Proceedings, 2015, , .	0.4	1
26	Particle-Laden Turbulent Channel Flow with Wall-Roughness. ERCOFTAC Series, 2015, , 655-661.	0.1	0
27	Numerical simulations of aggregate breakup in bounded and unbounded turbulent flows. Journal of Fluid Mechanics, 2015, 766, 104-128.	3.4	36
28	Particle Velocity and Acceleration in Turbulent Bent Pipe Flows. Flow, Turbulence and Combustion, 2015, 95, 539-559.	2.6	12
29	The effect of the Basset history force on particle clustering in homogeneous and isotropic turbulence. Physics of Fluids, 2014, 26, .	4.0	65
30	Corrections for one- and two-point statistics measured with coarse-resolution particle image velocimetry. Experiments in Fluids, 2014, 55, 1.	2.4	9
31	Accumulation of motile elongated micro-organisms in turbulence. Journal of Fluid Mechanics, 2014, 739, 22-36.	3.4	60
32	Effects of roughness on particle dynamics in turbulent channel flows: a DNS analysis. Journal of Fluid Mechanics, 2014, 739, 465-478.	3.4	41
33	Statistics of Particle Accumulation in Spatially Developing Turbulent Boundary Layers. Flow, Turbulence and Combustion, 2014, 92, 27-40.	2.6	8
34	Turbophoresis attenuation in a turbulent channel flow with polymer additives. Journal of Fluid Mechanics, 2013, 732, 706-719.	3.4	14
35	Dispersion of swimming algae in laminar and turbulent channel flows: consequences for photobioreactors. Journal of the Royal Society Interface, 2013, 10, 20121041.	3.4	59
36	Numerical study of laminar-turbulent transition in particle-laden channel flow. Physical Review E, 2013, 87, 043011.	2.1	12

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37	Clustering and turbulence modulation in particle-laden shear flows. Journal of Fluid Mechanics, 2013, 715, 134-162.	3.4	78
38	Self-similar transport of inertial particles in a turbulent boundary layer. Journal of Fluid Mechanics, 2012, 706, 584-596.	3.4	35
39	Transport of Inertial Particles in Turbulent Jets. Springer Proceedings in Physics, 2012, , 71-74.	0.2	0
40	Wall accumulation and spatial localization in particle-laden wall flows. Journal of Fluid Mechanics, 2012, 699, 50-78.	3.4	123
41	Statistics of particle pair relative velocity in the homogeneous shear flow. Physica D: Nonlinear Phenomena, 2012, 241, 245-250.	2.8	18
42	Statistics of particle accumulation in spatially developing turbulent boundary layers. , 2012, , .		0
43	Exact regularized point particle method for particle-laden flows in the two-way coupling regime. , 2012, , .		0
44	DNS of a free turbulent jet laden with small inertial particles. ERCOFTAC Series, 2011, , 189-194.	0.1	5
45	Clustering and turbulence modulation in particle laden shear flows. Journal of Physics: Conference Series, 2011, 333, 012007.	0.4	39
46	Particle-laden jets: particle distribution and back-reaction on the flow. Journal of Physics: Conference Series, 2011, 318, 052018.	0.4	0
47	Transport of inertial particles in turbulent boundary layers. Journal of Physics: Conference Series, 2011, 318, 052020.	0.4	1
48	Large Scale Accumulation Patterns of Inertial Particles in Wall-Bounded Turbulent Flow. Flow, Turbulence and Combustion, 2011, 86, 519-532.	2.6	28
49	The effects of back-reaction on turbulence modulation in shear flows: a new exact regularized point-particle method. Journal of Physics: Conference Series, 2011, 318, 092015.	0.4	0
50	Development of a particle laden pipe flow: implications for evaporation. ERCOFTAC Series, 2011, , 213-218.	0.1	0
51	Dynamics of inertial particles in free jets. Physica Scripta, 2010, T142, 014001.	2.5	19
52	Anomalous memory effects on transport of inertial particles in turbulent jets. Physics of Fluids, 2010, 22, .	4.0	37
53	Spatial development of particle-laden turbulent pipe flow. Physics of Fluids, 2009, 21, .	4.0	88
54	Inertial particles in a turbulent pipe flow: spatial evolution. Springer Proceedings in Physics, 2009, , 351-354.	0.2	0

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55	Anisotropic clustering and particles velocity statistics in shear turbulence. Springer Proceedings in Physics, 2009, , 339-342.	0.2	0
56	Large scale accumulation patterns of inertial particles in wall-bounded turbulent flow. , 2009, , .		0