Enrico Calzavarini

List of Publications by Year
in descending order

55 papers	1,721 citations	257450 24 h-index	276875 41 g-index
61 all docs	61 docs citations	61 times ranked	1087 citing authors

#	Article	IF	Citations
1	Universal Intermittent Properties of Particle Trajectories in Highly Turbulent Flows. Physical Review Letters, 2008, 100, 254504.	7.8	145
2	Rotation Rate of Rods in Turbulent Fluid Flow. Physical Review Letters, 2012, 109, 134501.	7.8	144
3	Dimensionality and morphology of particle and bubble clusters in turbulent flow. Journal of Fluid Mechanics, 2008, 607, 13-24.	3.4	103
4	Acceleration statistics of finite-sized particles in turbulent flow: the role of FaxÃ©n forces. Journal of Fluid Mechanics, 2009, 630, 179-189.	3.4	95
5	Flow organization in two-dimensional non-Oberbeckâ€“Boussinesq Rayleighâ€“BÃ©nard convection in water. Journal of Fluid Mechanics, 2009, 637, 105-135.	3.4	90
6	Three-dimensional Lagrangian VoronoÃ¯ analysis for clustering of particles and bubbles in turbulence. Journal of Fluid Mechanics, 2012, 693, 201-215.	3.4	83
7	Rayleigh and Prandtl number scaling in the bulk of Rayleighâ€“BÃ©nard turbulence. Physics of Fluids, 2005, 17, 055107.	4.0	79
8	Acceleration of heavy and light particles in turbulence: Comparison between experiments and direct numerical simulations. Physica D: Nonlinear Phenomena, 2008, 237, 2084-2089.	2.8	76
9	Quantifying Turbulence-Induced Segregation of Inertial Particles. Physical Review Letters, 2008, 101, 084504.	7.8	71
10	Dynamics of inertial particles in a turbulent von KÃ¡rmÃ¡n flow. Journal of Fluid Mechanics, 2011, 668, 223-235.	3.4	63
11	Evidences of Bolgiano-Obhukhov scaling in three-dimensional Rayleigh-BÃ©nard convection. Physical Review E, 2002, 66, 016304.	2.1	61
12	Microbubbly drag reduction in Taylorâ€“Couette flow in the wavy vortex regime. Journal of Fluid Mechanics, 2008, 608, 21-41.	3.4	59
13	Exponentially growing solutions in homogeneous Rayleigh-BÃ©nard convection. Physical Review E, 2006, 73, 035301.	2.1	52
14	Microbubbles and Microparticles are Not Faithful Tracers of Turbulent Acceleration. Physical Review Letters, 2016, 117, 024501.	7.8	52
15	Nonâ€“Oberbeck-Boussinesq effects in two-dimensional Rayleigh-BÃ©nard convection in glycerol. Europhysics Letters, 2007, 80, 34002.	2.0	49
16	Velocity-gradient statistics along particle trajectories in turbulent flows: The refined similarity hypothesis in the Lagrangian frame. Physical Review E, 2009, 80, 066318.	2.1	48
17	Non-Oberbeck-Boussinesq effects in turbulent thermal convection in ethane close to the critical point. Physical Review E, 2008, 77, 046302.	2.1	36
18	Lagrangian single-particle turbulent statistics through the Hilbert-Huang transform. Physical Review E, 2013, 87, 041003.	2.1	35

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19	Quantifying microbubble clustering in turbulent flow from single-point measurements. Physics of Fluids, 2008, 20, .	4.0	33
20	Impact of trailing wake drag on the statistical properties and dynamics of finite-sized particle in turbulence. Physica D: Nonlinear Phenomena, 2012, 241, 237-244.	2.8	32
21	Basal melting driven by turbulent thermal convection. Physical Review Fluids, 2018, 3, .	2.5	30
22	Universality of anisotropic fluctuations from numerical simulations of turbulent flows. Europhysics Letters, 2003, 64, 461-467.	2.0	29
23	How gravity and size affect the acceleration statistics of bubbles in turbulence. New Journal of Physics, 2012, 14, 105017.	2.9	26
24	Axially homogeneous Rayleighâ€“BÃ©nard convection in a cylindrical cell. Journal of Fluid Mechanics, 2012, 691, 52-68.	3.4	25
25	Settling of inertial particles in turbulent Rayleigh-BÃ©nard convection. Physical Review Fluids, 2020, 5, .	2.5	24
26	How the growth of ice depends on the fluid dynamics underneath. Proceedings of the National Academy of Sciences of the United States of America, 2021, 118, .	7.1	18
27	Multi-time multi-scale correlation functions in hydrodynamic turbulence. Physics of Fluids, 2011, 23, 085107.	4.0	17
28	Robustness of heat transfer in confined inclined convection at high Prandtl number. Physical Review E, 2019, 99, 013108.	2.1	15
29	Rotation of anisotropic particles in Rayleighâ€“BÃ©nard turbulence. Journal of Fluid Mechanics, 2020, 901, .	3.4	12
30	Anisotropic particles in two-dimensional convective turbulence. Physics of Fluids, 2020, 32, 023305.	4.0	12
31	Copepods encounter rates from a model of escape jump behaviour in turbulence. Journal of Plankton Research, 2017, 39, 878-890.	1.8	11
32	Eulerianâ€“Lagrangian fluid dynamics platform: The ch4-project. Software Impacts, 2019, 1, 100002.	1.4	10
33	Ice front shaping by upward convective current. Physical Review Fluids, 2021, 6, .	2.5	10
34	Lagrangian model of copepod dynamics: Clustering by escape jumps in turbulence. Physical Review E, 2016, 93, 043117.	2.1	9
35	Propelled microprobes in turbulence. Physical Review Fluids, 2018, 3, .	2.5	9
36	Universality of anisotropic turbulence. Physica A: Statistical Mechanics and Its Applications, 2004, 338, 194-200.	2.6	7

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37	Finite-volume versus streaming-based lattice Boltzmann algorithm for fluid-dynamics simulations: A one-to-one accuracy and performance study. Physical Review E, 2016, 93, 023306.	2.1	7
38	Exploring the limits of granular hydrodynamics: A horizontal array of inelastic particles. Physical Review E, 2009, 80, 011302.	2.1	6
39	Residence time of inertial particles in 3D thermal convection: Implications for magma reservoirs. Earth and Planetary Science Letters, 2022, 591, 117622.	4.4	6
40	Particle-laden two-dimensional elastic turbulence. European Physical Journal E, 2018, 41, 115.	1.6	5
41	Effects of large-scale advection and small-scale turbulent diffusion on vertical phytoplankton dynamics. Physical Review E, 2021, 104, 065106.	2.1	5
42	Rotational dynamics of bottom-heavy rods in turbulence from experiments and numerical simulations. Theoretical and Applied Mechanics Letters, 2021, 11, 100227.	2.8	4
43	Statistical properties of two-dimensional elastic turbulence. Physical Review E, 2021, 104, 035103.	2.1	4
44	On the Error Estimate in Sub-Grid Models for Particles in Turbulent Flows. ERCOFTAC Series, 2011, , 171-176.	0.1	3
45	Matched filters for coalescing binaries detection onÂmassivelyÂparallelÂcomputers. Computer Physics Communications, 2003, 152, 295-306.	7.5	2
46	Predator-prey plankton dynamics in turbulent flow past an obstacle. Physical Review Fluids, 2021, 6, .	2.5	2
47	A quadratic Reynolds stress development for the turbulent Kolmogorov flow. Physics of Fluids, 2021, 33, .	4.0	2
48	Fluctuations and correlations of reactive scalars near chemical equilibrium in incompressible turbulence. Physical Review Fluids, 2020, 5, .	2.5	1
49	Modelling Sea Ice and Melt Ponds Evolution: Sensitivity to Microscale Heat Transfer Mechanisms. Springer INdAM Series, 2020, , 179-198.	0.5	1
50	Three-dimensional turbulence effects on plankton dynamics behind an obstacle. European Physical Journal Plus, 2022, 137, 1.	2.6	1
51	Copepod swimming activity and turbulence intensity: study in the Agiturb turbulence generator system. European Physical Journal Plus, 2022, 137, 1.	2.6	1
52	Dynamics of finite-size spheroids in turbulent flow: the roles of flow structures and particle boundary layers. Journal of Fluid Mechanics, 2022, 939, .	3.4	1
53	Various flow amplitudes in 2D non-Oberbeck-Boussinesq Rayleigh-BÃ©nard convection in water. Springer Proceedings in Physics, 2009, , 479-482.	0.2	0
54	Numerical study of Non-Oberbeck-Boussinesq effects on the heat transport in turbulent Rayleigh-BÃ©nard convection in liquids. , 2007, , 642-644.		0

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55	Reactive scalars in incompressible turbulence with strongly out of equilibrium chemistry. Journal of Fluid Mechanics, 2022, 938, .	3.4	0