

# Enrico Calzavarini

## List of Publications by Year in descending order

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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	Three-dimensional turbulence effects on plankton dynamics behind an obstacle. <i>European Physical Journal Plus</i> , 2022, 137, 1.	2.6	1
2	Copepod swimming activity and turbulence intensity: study in the Agiturb turbulence generator system. <i>European Physical Journal Plus</i> , 2022, 137, 1.	2.6	1
3	Reactive scalars in incompressible turbulence with strongly out of equilibrium chemistry. <i>Journal of Fluid Mechanics</i> , 2022, 938, .	3.4	0
4	Dynamics of finite-size spheroids in turbulent flow: the roles of flow structures and particle boundary layers. <i>Journal of Fluid Mechanics</i> , 2022, 939, .	3.4	1
5	Residence time of inertial particles in 3D thermal convection: Implications for magma reservoirs. <i>Earth and Planetary Science Letters</i> , 2022, 591, 117622.	4.4	6
6	Rotational dynamics of bottom-heavy rods in turbulence from experiments and numerical simulations. <i>Theoretical and Applied Mechanics Letters</i> , 2021, 11, 100227.	2.8	4
7	How the growth of ice depends on the fluid dynamics underneath. <i>Proceedings of the National Academy of Sciences of the United States of America</i> , 2021, 118, .	7.1	18
8	Statistical properties of two-dimensional elastic turbulence. <i>Physical Review E</i> , 2021, 104, 035103.	2.1	4
9	Ice front shaping by upward convective current. <i>Physical Review Fluids</i> , 2021, 6, .	2.5	10
10	Predator-prey plankton dynamics in turbulent flow past an obstacle. <i>Physical Review Fluids</i> , 2021, 6, .	2.5	2
11	A quadratic Reynolds stress development for the turbulent Kolmogorov flow. <i>Physics of Fluids</i> , 2021, 33, .	4.0	2
12	Effects of large-scale advection and small-scale turbulent diffusion on vertical phytoplankton dynamics. <i>Physical Review E</i> , 2021, 104, 065106.	2.1	5
13	Rotation of anisotropic particles in Rayleigh-Bénard turbulence. <i>Journal of Fluid Mechanics</i> , 2020, 901, .	3.4	12
14	Anisotropic particles in two-dimensional convective turbulence. <i>Physics of Fluids</i> , 2020, 32, 023305.	4.0	12
15	Settling of inertial particles in turbulent Rayleigh-Bénard convection. <i>Physical Review Fluids</i> , 2020, 5, .	2.5	24
16	Fluctuations and correlations of reactive scalars near chemical equilibrium in incompressible turbulence. <i>Physical Review Fluids</i> , 2020, 5, .	2.5	1
17	Modelling Sea Ice and Melt Ponds Evolution: Sensitivity to Microscale Heat Transfer Mechanisms. <i>Springer INdAM Series</i> , 2020, , 179-198.	0.5	1
18	Eulerian-Lagrangian fluid dynamics platform: The ch4-project. <i>Software Impacts</i> , 2019, 1, 100002.	1.4	10

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19	Robustness of heat transfer in confined inclined convection at high Prandtl number. <i>Physical Review E</i> , 2019, 99, 013108.	2.1	15
20	Particle-laden two-dimensional elastic turbulence. <i>European Physical Journal E</i> , 2018, 41, 115.	1.6	5
21	Basal melting driven by turbulent thermal convection. <i>Physical Review Fluids</i> , 2018, 3, .	2.5	30
22	Propelled microprobes in turbulence. <i>Physical Review Fluids</i> , 2018, 3, .	2.5	9
23	Copepods encounter rates from a model of escape jump behaviour in turbulence. <i>Journal of Plankton Research</i> , 2017, 39, 878-890.	1.8	11
24	Lagrangian model of copepod dynamics: Clustering by escape jumps in turbulence. <i>Physical Review E</i> , 2016, 93, 043117.	2.1	9
25	Microbubbles and Microparticles are Not Faithful Tracers of Turbulent Acceleration. <i>Physical Review Letters</i> , 2016, 117, 024501.	7.8	52
26	Finite-volume versus streaming-based lattice Boltzmann algorithm for fluid-dynamics simulations: A one-to-one accuracy and performance study. <i>Physical Review E</i> , 2016, 93, 023306.	2.1	7
27	Lagrangian single-particle turbulent statistics through the Hilbert-Huang transform. <i>Physical Review E</i> , 2013, 87, 041003.	2.1	35
28	How gravity and size affect the acceleration statistics of bubbles in turbulence. <i>New Journal of Physics</i> , 2012, 14, 105017.	2.9	26
29	Rotation Rate of Rods in Turbulent Fluid Flow. <i>Physical Review Letters</i> , 2012, 109, 134501.	7.8	144
30	Three-dimensional Lagrangian Voronoï analysis for clustering of particles and bubbles in turbulence. <i>Journal of Fluid Mechanics</i> , 2012, 693, 201-215.	3.4	83
31	Axially homogeneous Rayleigh-Bénard convection in a cylindrical cell. <i>Journal of Fluid Mechanics</i> , 2012, 691, 52-68.	3.4	25
32	Impact of trailing wake drag on the statistical properties and dynamics of finite-sized particle in turbulence. <i>Physica D: Nonlinear Phenomena</i> , 2012, 241, 237-244.	2.8	32
33	Multi-time multi-scale correlation functions in hydrodynamic turbulence. <i>Physics of Fluids</i> , 2011, 23, 085107.	4.0	17
34	Dynamics of inertial particles in a turbulent von Kármán flow. <i>Journal of Fluid Mechanics</i> , 2011, 668, 223-235.	3.4	63
35	On the Error Estimate in Sub-Grid Models for Particles in Turbulent Flows. <i>ERCOFTAC Series</i> , 2011, , 171-176.	0.1	3
36	Exploring the limits of granular hydrodynamics: A horizontal array of inelastic particles. <i>Physical Review E</i> , 2009, 80, 011302.	2.1	6

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37	Velocity-gradient statistics along particle trajectories in turbulent flows: The refined similarity hypothesis in the Lagrangian frame. <i>Physical Review E</i> , 2009, 80, 066318.	2.1	48
38	Flow organization in two-dimensional non-Oberbeck-Boussinesq Rayleigh-Bénard convection in water. <i>Journal of Fluid Mechanics</i> , 2009, 637, 105-135.	3.4	90
39	Acceleration statistics of finite-sized particles in turbulent flow: the role of Faxén forces. <i>Journal of Fluid Mechanics</i> , 2009, 630, 179-189.	3.4	95
40	Various flow amplitudes in 2D non-Oberbeck-Boussinesq Rayleigh-Bénard convection in water. <i>Springer Proceedings in Physics</i> , 2009, , 479-482.	0.2	0
41	Acceleration of heavy and light particles in turbulence: Comparison between experiments and direct numerical simulations. <i>Physica D: Nonlinear Phenomena</i> , 2008, 237, 2084-2089.	2.8	76
42	Quantifying microbubble clustering in turbulent flow from single-point measurements. <i>Physics of Fluids</i> , 2008, 20, .	4.0	33
43	Universal Intermittent Properties of Particle Trajectories in Highly Turbulent Flows. <i>Physical Review Letters</i> , 2008, 100, 254504.	7.8	145
44	Non-Oberbeck-Boussinesq effects in turbulent thermal convection in ethane close to the critical point. <i>Physical Review E</i> , 2008, 77, 046302.	2.1	36
45	Quantifying Turbulence-Induced Segregation of Inertial Particles. <i>Physical Review Letters</i> , 2008, 101, 084504.	7.8	71
46	Microbubbly drag reduction in Taylor-Couette flow in the wavy vortex regime. <i>Journal of Fluid Mechanics</i> , 2008, 608, 21-41.	3.4	59
47	Dimensionality and morphology of particle and bubble clusters in turbulent flow. <i>Journal of Fluid Mechanics</i> , 2008, 607, 13-24.	3.4	103
48	Non-Oberbeck-Boussinesq effects in two-dimensional Rayleigh-Bénard convection in glycerol. <i>Europhysics Letters</i> , 2007, 80, 34002.	2.0	49
49	Numerical study of Non-Oberbeck-Boussinesq effects on the heat transport in turbulent Rayleigh-Bénard convection in liquids. , 2007, , 642-644.		0
50	Exponentially growing solutions in homogeneous Rayleigh-Bénard convection. <i>Physical Review E</i> , 2006, 73, 035301.	2.1	52
51	Rayleigh and Prandtl number scaling in the bulk of Rayleigh-Bénard turbulence. <i>Physics of Fluids</i> , 2005, 17, 055107.	4.0	79
52	Universality of anisotropic turbulence. <i>Physica A: Statistical Mechanics and Its Applications</i> , 2004, 338, 194-200.	2.6	7
53	Matched filters for coalescing binaries detection on massively parallel computers. <i>Computer Physics Communications</i> , 2003, 152, 295-306.	7.5	2
54	Universality of anisotropic fluctuations from numerical simulations of turbulent flows. <i>Europhysics Letters</i> , 2003, 64, 461-467.	2.0	29

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55	Evidences of Bolgiano-Obhukhov scaling in three-dimensional Rayleigh-Bénard convection. Physical Review E, 2002, 66, 016304.	2.1	61