Mickael Bourgoin

List of Publications by Year
in descending order

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92 papers	3,218 citations	185998 28 h-index	155451 55 g-index
96 all docs	96 docs citations	96 times ranked	1591 citing authors

#	Article	IF	Citations
1	Characterization of coupling between inertial particles and turbulent wakes from porous disk generators. Journal of Fluid Mechanics, 2022, 933, .	1.4	4
2	Single inertial particle statistics in turbulent flows from Lagrangian velocity models. Physical Review Fluids, 2022, 7, .	1.0	3
3	Experimental validation of fluid inertia models for a cylinder settling in a quiescent flow. Physical Review Fluids, 2022, 7, .	1.0	8
4	Markov property of Lagrangian turbulence. Europhysics Letters, 2022, 137, 53001.	0.7	2
5	Inertial drag-out problem: sheets and films on a rotating disc. Journal of Fluid Mechanics, 2021, 908, .	1.4	5
6	Ubiquity of particleâ€“vortex interactions in turbulent counterflow of superfluid helium. Journal of Fluid Mechanics, 2021, 911, .	1.4	7
7	Taming the Janssen effect. EPJ Web of Conferences, 2021, 249, 08004.	0.1	0
8	Mixing and unmixing induced by active camphor particles. Physical Review Fluids, 2021, 6, .	1.0	8
9	Discharge of a 2D magnetic silo. EPJ Web of Conferences, 2021, 249, 03017.	0.1	0
10	Clustering of vector nulls in homogeneous isotropic turbulence. Physical Review Fluids, 2021, 6, .	1.0	8
11	Rare Event-Triggered Transitions in Aerodynamic Bifurcation. Physical Review Letters, 2021, 126, 104501.	2.9	8
12	Magnetic Janssen effect. Nature Communications, 2021, 12, 2486.	5.8	3
13	Lagrangian diffusion properties of a free shear turbulent jet. Journal of Fluid Mechanics, 2021, 918, .	1.4	13
14	Multiscale energy budget of inertially driven turbulence in normal and superfluid helium. Physical Review Fluids, 2021, 6, .	1.0	3
15	Broken Mirror Symmetry of Tracerâ€™s Trajectories in Turbulence. Physical Review Letters, 2021, 127, 254502.	2.9	7
16	Two-dimensional numerical model of Marangoni surfers: From single swimmer to crystallization. Physical Review E, 2021, 104, 064608.	0.8	2
17	Preferential Concentration of Free-Falling Heavy Particles in Turbulence. Physical Review Letters, 2020, 125, 064504.	2.9	16
18	Modelling Lagrangian velocity and acceleration in turbulent flows as infinitely differentiable stochastic processes. Journal of Fluid Mechanics, 2020, 900, .	1.4	9

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19	Sedimentation of a suspension of paramagnetic particles in an external magnetic field. Physical Review E, 2020, 102, 023101.	0.8	3
20	Using ray-traversal for 3D particle matching in the context of particle tracking velocimetry in fluid mechanics. Review of Scientific Instruments, 2020, 91, 085105.	0.6	10
21	Stability of a Liquid Jet Impinging on Confined Saturated Sand. Physical Review Letters, 2020, 124, 224502.	2.9	7
22	Kolmogorovian Active Turbulence of a Sparse Assembly of Interacting Marangoni Surfers. Physical Review X, 2020, 10, .	2.8	14
23	Analysis of the dissipative range of the energy spectrum in grid turbulence and in direct numerical simulations. Physical Review Fluids, 2020, 5, .	1.0	12
24	A simplified and versatile calibration method for multi-camera optical systems in 3D particle imaging. Review of Scientific Instruments, 2019, 90, 035112.	0.6	16
25	Probing fluid torque with a hydrodynamical trap: Rotation of chiral particles levitating in a turbulent jet. Physics of Fluids, 2019, 31, 125116.	1.6	3
26	Recent Developments in Particle Tracking Diagnostics for Turbulence Research. Soft and Biological Matter, 2019, , 177-209.	0.3	3
27	Pair dispersion in inhomogeneous turbulent thermal convection. Physical Review Fluids, 2019, 4, .	1.0	4
28	Investigation of the small-scale statistics of turbulence in the Modane S1MA wind tunnel. CEAS Aeronautical Journal, 2018, 9, 269-281.	0.9	20
29	Some Aspects of Lagrangian Dynamics of Turbulence. CISM International Centre for Mechanical Sciences, Courses and Lectures, 2018, , 101-127.	0.3	0
30	The role of collective effects on settling velocity enhancement for inertial particles in turbulence. Journal of Fluid Mechanics, 2018, 846, 1059-1075.	1.4	32
31	Advection and diffusion in a chemically induced compressible flow. Journal of Fluid Mechanics, 2018, 847, 228-243.	1.4	15
32	Dispersion of Air Bubbles in Isotropic Turbulence. Physical Review Letters, 2018, 121, 054501.	2.9	30
33	A multi-time-step noise reduction method for measuring velocity statistics from particle tracking velocimetry. Measurement Science and Technology, 2017, 28, 107002.	1.4	6
34	Equilibrium position of a rigid sphere in a turbulent jet: A problem of elastic reconfiguration. Physical Review E, 2017, 96, 033105.	0.8	5
35	Phoresis in turbulent flows. New Journal of Physics, 2017, 19, 123030.	1.2	6
36	Preferential concentration of inertial sub-Kolmogorov particles: The roles of mass loading of particles, Stokes numbers, and Reynolds numbers. Physical Review Fluids, 2017, 2, .	1.0	72

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37	Stochastic reversal dynamics of two interacting magnetic dipoles: A simple model experiment. Physical Review E, 2016, 94, 012224.	0.8	4
38	Clustering and Settling of Inertial Particles in Turbulence. Springer Proceedings in Physics, 2016, , 475-482.	0.1	5
39	Stochastic dynamics of particles trapped in turbulent flows. Physical Review E, 2016, 93, 023118.	0.8	9
40	Inhomogeneity and Lagrangian unsteadiness in turbulent thermal convection. Physical Review Fluids, 2016, 1, .	1.0	11
41	Columnar structure formation of a dilute suspension of settling spherical particles in a quiescent fluid. Physical Review Fluids, 2016, 1, .	1.0	23
42	Experimental detection of superclusters of water droplets in homogeneous isotropic turbulence. Europhysics Letters, 2015, 112, 54004.	0.7	14
43	Flow dynamics and magnetic induction in the von-KÃ¡rmÃ¡n plasma experiment. Journal of Plasma Physics, 2015, 81, .	0.7	13
44	Turbulent pair dispersion as a ballistic cascadeÂphenomenology. Journal of Fluid Mechanics, 2015, 772, 678-704.	1.4	37
45	Preferential concentration of heavy particles in turbulence. Journal of Turbulence, 2014, 15, 293-310.	0.5	74
46	Robust estimate of dynamo thresholds in the von KÃ¡rmÃ¡n sodium experiment using the extreme value theory. New Journal of Physics, 2014, 16, 083001.	1.2	5
47	Large sphere motion in a nonhomogeneous turbulent flow. New Journal of Physics, 2014, 16, 013053.	1.2	25
48	Dynamo efficiency controlled by hydrodynamic bistability. Physical Review E, 2014, 89, 063023.	0.8	2
49	Focus on dynamics of particles in turbulence. New Journal of Physics, 2014, 16, 085010.	1.2	26
50	Long-term memory in experiments and numerical simulations of hydrodynamic and magnetohydrodynamic turbulence. Physical Review E, 2014, 89, 053005.	0.8	7
51	Chaotic mixing in effective compressible flows. Physical Review E, 2014, 90, 013027.	0.8	16
52	Bi-stability of a pendular disk in laminar and turbulent flows. Journal of Fluid Mechanics, 2013, 728, .	1.4	11
53	Do finite-size neutrally buoyant particles cluster?. Physica Scripta, 2013, T155, 014056.	1.2	3
54	Dynamo threshold detection in the von KÃ¡rmÃ¡n sodium experiment. Physical Review E, 2013, 88, 013002.	0.8	29

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55	Symmetry and couplings in stationary Von KÃ¡rmÃ¡n sodium dynamos. New Journal of Physics, 2012, 14, 013044.	1.2	18
56	Clustering of finite-size particles in turbulence. Physical Review E, 2012, 86, 035301.	0.8	48
57	Experimental Observation of Spatially Localized Dynamo Magnetic Fields. Physical Review Letters, 2012, 108, 144501.	2.9	14
58	Two-time statistics of inertial particles dynamics in wind tunnel grid generated turbulence. , 2012, , .		0
59	Analyzing preferential concentration and clustering of inertial particles in turbulence. International Journal of Multiphase Flow, 2012, 40, 1-18.	1.6	226
60	Reynolds number influence on preferential concentration of heavy particles in turbulent flows. Journal of Physics: Conference Series, 2011, 318, 052015.	0.3	12
61	Constrained dynamics of an inertial particle in a turbulent flow. Journal of Physics: Conference Series, 2011, 318, 052016.	0.3	1
62	Turbulence induced lift experienced by large particles in a turbulent flow. Journal of Physics: Conference Series, 2011, 318, 052027.	0.3	0
63	Turbulent transport of finite sized material particles. Journal of Physics: Conference Series, 2011, 318, 012005.	0.3	7
64	Rotational Intermittency and Turbulence Induced Lift Experienced by Large Particles in a Turbulent Flow. Physical Review Letters, 2011, 106, 154501.	2.9	57
65	Tracking the dynamics of translation and absolute orientation of a sphere in a turbulent flow. Review of Scientific Instruments, 2011, 82, 033906.	0.6	36
66	Dynamo regimes and transitions in the VKS experiment. European Physical Journal B, 2010, 77, 459-468.	0.6	70
67	Laboratory Dynamo Experiments. Space Science Reviews, 2010, 152, 543-564.	3.7	25
68	The Lagrangian exploration module: An apparatus for the study of statistically homogeneous and isotropic turbulence. Review of Scientific Instruments, 2010, 81, 055112.	0.6	43
69	Large-scale fluctuations and dynamics of the Bullardâ€“von KÃ¡rmÃ¡n dynamo. Geophysical and Astrophysical Fluid Dynamics, 2010, 104, 189-205.	0.4	6
70	Preferential concentration of heavy particles: A VoronoÃ¯ analysis. Physics of Fluids, 2010, 22, .	1.6	219
71	The von KÃ¡rmÃ¡n Sodium experiment: Turbulent dynamical dynamos. Physics of Fluids, 2009, 21, .	1.6	89
72	Bistability between a stationary and an oscillatory dynamo in a turbulent flow of liquid sodium. Journal of Fluid Mechanics, 2009, 641, 217-226.	1.4	25

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73	Arctic sea ice velocity field: General circulation and turbulentâ€like fluctuations. Journal of Geophysical Research, 2009, 114, .	3.3	46
74	Acceleration statistics of finite-sized particles in turbulent flow: the role of FaxÃ©n forces. Journal of Fluid Mechanics, 2009, 630, 179-189.	1.4	95
75	Effect of FaxÃ©n forces on acceleration statistics of material particles in turbulent flow. Springer Proceedings in Physics, 2009, , 11-14.	0.1	2
76	Laboratory Dynamo Experiments. Space Sciences Series of ISSI, 2009, , 543-564.	0.0	1
77	Lagrangian statistics of inertial particles in turbulent flow. Springer Proceedings in Physics, 2009, , 31-34.	0.1	0
78	The VKS experiment: turbulent dynamical dynamos. Comptes Rendus Physique, 2008, 9, .	0.3	12
79	Acceleration statistics of inertial particles in turbulent flow. European Physical Journal B, 2008, 66, 531-536.	0.6	80
80	Chaotic Dynamos Generated by a Turbulent Flow of Liquid Sodium. Physical Review Letters, 2008, 101, 074502.	2.9	67
81	Magnetic field reversals in an experimental turbulent dynamo. Europhysics Letters, 2007, 77, 59001.	0.7	209
82	Turbulent Transport of Material Particles: An Experimental Study of Finite Size Effects. Physical Review Letters, 2007, 99, 184502.	2.9	127
83	Generation of a Magnetic Field by Dynamo Action in a Turbulent Flow of Liquid Sodium. Physical Review Letters, 2007, 98, 044502.	2.9	364
84	3D acoustic Lagrangian velocimetry. , 2007, , 243-256.		1
85	An experimental Bullardâ€“von KÃ¡rmÃ¡n dynamo. New Journal of Physics, 2006, 8, 329-329.	1.2	24
86	Small-scale anisotropy in Lagrangian turbulence. New Journal of Physics, 2006, 8, 102-102.	1.2	82
87	High Order Lagrangian Velocity Statistics in Turbulence. Physical Review Letters, 2006, 96, 024503.	2.9	79
88	The Role of Pair Dispersion in Turbulent Flow. Science, 2006, 311, 835-838.	6.0	175
89	An experimental study of turbulent relative dispersion models. New Journal of Physics, 2006, 8, 109-109.	1.2	81
90	An iterative study of time independent induction effects in magnetohydrodynamics. Physics of Fluids, 2004, 16, 2529-2547.	1.6	38

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91	Nonlinear Magnetic Induction by Helical Motion in a Liquid Sodium Turbulent Flow. Physical Review Letters, 2003, 90, 174501.	2.9	56
92	Magnetohydrodynamics measurements in the von KÃ¡rmÃ¡n sodium experiment. Physics of Fluids, 2002, 14, 3046-3058.	1.6	96