Nicolas Mordant

List of Publications by Year
in descending order

46 papers	2,432 citations	236833 25 h-index	223716 46 g-index
46 all docs	46 docs citations	46 times ranked	1211 citing authors

#	Article	IF	Citations
1	Measurement of Lagrangian Velocity in Fully Developed Turbulence. Physical Review Letters, 2001, 87, 214501.	2.9	276
2	Experimental Lagrangian acceleration probability density function measurement. Physica D: Nonlinear Phenomena, 2004, 193, 245-251.	1.3	212
3	Magnetic field reversals in an experimental turbulent dynamo. Europhysics Letters, 2007, 77, 59001.	0.7	209
4	Experimental and numerical study of the Lagrangian dynamics of high Reynolds turbulence. New Journal of Physics, 2004, 6, 116-116.	1.2	154
5	Universal Intermittent Properties of Particle Trajectories in Highly Turbulent Flows. Physical Review Letters, 2008, 100, 254504.	2.9	145
6	Long Time Correlations in Lagrangian Dynamics: A Key to Intermittency in Turbulence. Physical Review Letters, 2002, 89, 254502.	2.9	105
7	Three-Dimensional Structure of the Lagrangian Acceleration in Turbulent Flows. Physical Review Letters, 2004, 93, 214501.	2.9	95
8	Highly resolved detection and selective focusing in a waveguide using the D.O.R.T. method. Journal of the Acoustical Society of America, 1999, 105, 2634-2642.	0.5	83
9	Lagrangian Velocity Statistics in Turbulent Flows: Effects of Dissipation. Physical Review Letters, 2003, 91, 214502.	2.9	81
10	Acceleration of heavy and light particles in turbulence: Comparison between experiments and direct numerical simulations. Physica D: Nonlinear Phenomena, 2008, 237, 2084-2089.	1.3	76
11	Are There Waves in Elastic Wave Turbulence?. Physical Review Letters, 2008, 100, 234505.	2.9	72
12	Dynamo regimes and transitions in the VKS experiment. European Physical Journal B, 2010, 77, 459-468.	0.6	70
13	On the magnetic fields generated by experimental dynamos. Geophysical and Astrophysical Fluid Dynamics, 2007, 101, 289-323.	0.4	67
14	Space-Time Resolved Wave Turbulence in a Vibrating Plate. Physical Review Letters, 2009, 103, 204301.	2.9	53
15	Experimental Evidence of a Hydrodynamic Soliton Gas. Physical Review Letters, 2019, 122, 214502.	2.9	51
16	On the distribution of Lagrangian accelerations in turbulent flows. New Journal of Physics, 2005, 7, 58-58.	1.2	50
17	Nonlocal Resonances in Weak Turbulence of Gravity-Capillary Waves. Physical Review Letters, 2015, 114, 144501.	2.9	50
18	Observation of the Nonlinear Dispersion Relation and Spatial Statistics of Wave Turbulence on the Surface of a Fluid. Physical Review Letters, 2010, 105, 144502.	2.9	44

#	Article	IF	Citations
19	Experiments in Surface Gravityâ€"Capillary Wave Turbulence. Annual Review of Fluid Mechanics, 2022, 54, 1-25.	10.8	41
20	Title is missing!. Journal of Statistical Physics, 2003, 113, 701-717.	0.5	38
21	Fourier analysis of wave turbulence in a thin elastic plate. European Physical Journal B, 2010, 76, 537-545.	0.6	34
22	Transition from Wave Turbulence to Dynamical Crumpling in Vibrated Elastic Plates. Physical Review Letters, 2013, 111, 054302.	2.9	34
23	Role of dissipation in flexural wave turbulence: From experimental spectrum to Kolmogorov-Zakharov spectrum. Physical Review E, 2014, 89, 062925.	0.8	30
24	Characterization of Turbulence in a Closed Flow. Journal De Physique II, 1997, 7, 1729-1742.	0.9	29
25	Investigation of resonances in gravity-capillary wave turbulence. Physical Review Fluids, 2016, 1, .	1.0	29
26	Fluid acceleration in the bulk of turbulent dilute polymer solutions. New Journal of Physics, 2008, 10, 123015.	1.2	26
27	Three-wave and four-wave interactions in gravity wave turbulence. Physical Review Fluids, 2017, 2, .	1.0	26
28	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
29	Nonlinear dynamics of flexural wave turbulence. Physical Review E, 2011, 84, 066607.	0.8	25
30	Lagrangian acceleration statistics in a turbulent channel flow. Physical Review Fluids, 2017, 2, .	1.0	24
31	Time-resolved tracking of a sound scatterer in a complex flow: Nonstationary signal analysis and applications. Journal of the Acoustical Society of America, 2002, 112, 108-118.	0.5	22
32	Investigation of the small-scale statistics of turbulence in the Modane S1MA wind tunnel. CEAS Aeronautical Journal, 2018, 9, 269-281.	0.9	20
33	Relative dispersion of particle pairs in turbulent channel flow. International Journal of Heat and Fluid Flow, 2018, 71, 231-245.	1.1	18
34	Impact of dissipation on the energy spectrum of experimental turbulence of gravity surface waves. Physical Review Fluids, 2018, 3, .	1.0	17
35	Generation of weakly nonlinear turbulence of internal gravity waves in the Coriolis facility. Physical Review Fluids, 2020, 5, .	1.0	15
36	Transition from weak wave turbulence to soliton gas. Physical Review Fluids, 2017, 2, .	1.0	14

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37	Elastic weak turbulence: From the vibrating plate to the drum. Physical Review E, 2019, 99, 033002.	0.8	11
38	Confinement effects on gravity-capillary wave turbulence. Physical Review Fluids, 2018, 3, .	1.0	11
39	Saturation of the Inverse Cascade in Surface Gravity-Wave Turbulence. Physical Review Letters, 2020, 125, 134501.	2.9	10
40	Intermittency and emergence of coherent structures in wave turbulence of a vibrating plate. Physical Review E, 2017, 96, 042204.	0.8	9
41	Identifying four-wave-resonant interactions in a surface gravity wave turbulence experiment. Physical Review Fluids, 2019, 4, .	1.0	8
42	Experimental high Reynolds number turbulence with an active grid. American Journal of Physics, 2008, 76, 1092-1098.	0.3	7
43	Analysis of soliton gas with large-scale video-based wave measurements. Experiments in Fluids, 2020, 61, 1.	1.1	7
44	Lagrangian stochastic modelling of acceleration in turbulent wall-bounded flows. Journal of Fluid Mechanics, 2020, 892, .	1.4	4
45	Experimental study of integrable turbulence in shallow water. Physical Review Fluids, 2021, 6, .	1.0	4
46	The Energy Cascade of Surface Wave Turbulence: Toward Identifying the Active Wave Coupling. ERCOFTAC Series, 2019, , 239-246.	0.1	1