Eric Falcon

List of Publications by Year
in descending order

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93 papers	2,760 citations	186265 28 h-index	189892 50 g-index
93 all docs	93 docs citations	93 times ranked	1488 citing authors

#	Article	IF	Citations
1	Experiments in Surface Gravityâ€“Capillary Wave Turbulence. Annual Review of Fluid Mechanics, 2022, 54, 1-25.	25.0	41
2	Prediction and manipulation of hydrodynamic rogue waves via nonlinear spectral engineering. Physical Review Fluids, 2022, 7, .	2.5	13
3	Statistics of rogue waves in isotropic wave fields. Journal of Fluid Mechanics, 2022, 943, .	3.4	3
4	Three-dimensional direct numerical simulation of free-surface magnetohydrodynamic wave turbulence. Physical Review E, 2022, 105, .	2.1	5
5	Nonlinear dispersion relation in integrable turbulence. Scientific Reports, 2022, 12, .	3.3	3
6	Wave spectroscopy in a driven granular material. Proceedings of the Royal Society A: Mathematical, Physical and Engineering Sciences, 2022, 478, .	2.1	2
7	Particle Dynamics at the Onset of the Granular Gas-Liquid Transition. Physical Review Letters, 2021, 126, 128002.	7.8	11
8	Visual analysis of density and velocity profiles in dense 3D granular gases. Scientific Reports, 2021, 11, 10621.	3.3	3
9	Experimental Dispersion Relation of Surface Waves along a Torus of Fluid. Physical Review Letters, 2021, 127, 144504.	7.8	6
10	Experimental quasi-1D capillary-wave turbulence. Europhysics Letters, 2021, 135, 64001.	2.0	12
11	Three-dimensional turbulence generated homogeneously by magnetic particles. Physical Review Fluids, 2021, 6, .	2.5	3
12	Saturation of the Inverse Cascade in Surface Gravity-Wave Turbulence. Physical Review Letters, 2020, 125, 134501.	7.8	10
13	Patterns in magnetic granular media at the crossover from two to three dimensions. Physical Review E, 2020, 102, 042907.	2.1	6
14	Tuning the distance to equipartition by controlling the collision rate in a driven granular gas experiment. Physical Review E, 2020, 101, 032903.	2.1	3
15	From modulational instability to focusing dam breaks in water waves. Physical Review Fluids, 2020, 5, .	2.5	28
16	Emergence of Peregrine solitons in integrable turbulence of deep water gravity waves. Physical Review Fluids, 2020, 5, .	2.5	15
17	Nonlinear Spectral Synthesis of Soliton Gas in Deep-Water Surface Gravity Waves. Physical Review Letters, 2020, 125, 264101.	7.8	50
18	Numerical Simulation of Collinear Capillary-Wave Turbulence. JETP Letters, 2020, 112, 757-763.	1.4	10

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19	Observation of the Resonance Frequencies of a Stable Torus of Fluid. Physical Review Letters, 2019, 123, 094502.	7.8	5
20	Wave Turbulence: A Set of Stochastic Nonlinear Waves in Interaction. Understanding Complex Systems, 2019, , 259-266.	0.6	2
21	Capillary wave turbulence experiments in microgravity. Europhysics Letters, 2019, 128, 34001.	2.0	8
22	Wave Turbulence on the Surface of a Fluid in a High-Gravity Environment. Physical Review Letters, 2019, 123, 244501.	7.8	7
23	Forced three-wave interactions of capillary-gravity surface waves. Physical Review Fluids, 2019, 4, .	2.5	10
24	An instrument for studying granular media in low-gravity environment. Review of Scientific Instruments, 2018, 89, 075103.	1.3	18
25	Turbulence of capillary waves forced by steep gravity waves. Journal of Fluid Mechanics, 2018, 850, 803-843.	3.4	11
26	Threshold of gas-like to clustering transition in driven granular media in low-gravity environment. Europhysics Letters, 2018, 123, 14003.	2.0	16
27	Self-similar gravity wave spectra resulting from the modulation of bound waves. Physical Review Fluids, 2018, 3, .	2.5	8
28	Coexistence of solitons and extreme events in deep water surface waves. Physical Review Fluids, 2018, 3, .	2.5	24
29	Pressure dependence of the electrical transport in granular materials. European Physical Journal E, 2017, 40, 56.	1.6	8
30	Segregation and pattern formation in dilute granular media under microgravity conditions. Npj Microgravity, 2017, 3, 1.	3.7	21
31	Observation expÃ©rimentale en bassin Ã vagues des interactions rÃ©sonantes Ã quatre ondes. Houille Blanche, 2017, 103, 56-63.	0.3	3
32	Experimental observation of hydroelastic three-wave interactions. Physical Review Fluids, 2017, 2, .	2.5	15
33	Dissipated power within a turbulent flow forced homogeneously by magnetic particles. Physical Review Fluids, 2017, 2, .	2.5	9
34	Wave turbulence in a two-layer fluid: Coupling between free surface and interface waves. Europhysics Letters, 2016, 116, 64005.	2.0	16
35	Observation of resonant interactions among surface gravity waves. Journal of Fluid Mechanics, 2016, 805, .	3.4	29
36	Experimental study of three-wave interactions among capillary-gravity surface waves. Physical Review E, 2016, 93, 043110.	2.1	24

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37	Tuning the resonant frequencies of a drop by a magnetic field. Physical Review Fluids, 2016, 1, .	2.5	13
38	Role of the basin boundary conditions in gravity wave turbulence. Journal of Fluid Mechanics, 2015, 781, 196-225.	3.4	36
39	Experiments on generation of surface waves by an underwater moving bottom. Proceedings of the Royal Society A: Mathematical, Physical and Engineering Sciences, 2015, 471, 20150069.	2.1	13
40	Statistics of injected power on a bouncing ball subjected to a randomly vibrating piston. Physical Review E, 2015, 92, 032915.	2.1	5
41	Transition to a labyrinthine phase in a driven granular medium. Physical Review E, 2015, 92, 062205.	2.1	8
42	Direct Numerical Simulations of Capillary Wave Turbulence. Physical Review Letters, 2014, 112, 234501.	7.8	46
43	Energy flux measurement from the dissipated energy in capillary wave turbulence. Physical Review E, 2014, 89, 023003.	2.1	35
44	Transition from a dissipative to a quasi-elastic system of particles with tunable repulsive interactions. Europhysics Letters, 2014, 106, 44005.	2.0	18
45	Nonlinear waves on the surface of a fluid covered by an elastic sheet. Journal of Fluid Mechanics, 2013, 733, 394-413.	3.4	28
46	Gravity wave turbulence revealed by horizontal vibrations of the container. Physical Review E, 2013, 87, 011001.	2.1	10
47	Space-time-resolved capillary wave turbulence. Physical Review E, 2013, 87, .	2.1	33
48	Equation of state of a granular gas homogeneously driven by particle rotations. Europhysics Letters, 2013, 103, 64004.	2.0	22
49	Experimental study of a granular gas homogeneously driven by particle rotations. , 2013, , .		1
50	Fluctuations of the Energy Flux in Wave Turbulence. World Scientific Series on Nonlinear Science, Series A, 2013, , 53-72.	0.0	1
51	Decay of capillary wave turbulence. Physical Review E, 2012, 85, 066311.	2.1	42
52	Instability of the Origami of a Ferrofluid Drop in a Magnetic Field. Physical Review Letters, 2011, 107, 204503.	7.8	39
53	Observation of depth-induced properties in wave turbulence on the surface of a fluid. Europhysics Letters, 2011, 95, 34003.	2.0	11
54	Experimental study of the inverse cascade in gravity wave turbulence. Europhysics Letters, 2011, 96, 34004.	2.0	12

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55	Wave turbulence on the surface of a ferrofluid in a horizontal magnetic field. Physical Review E, 2011, 83, 046303.	2.1	21
56	On the origin of intermittency in wave turbulence. Europhysics Letters, 2010, 90, 34005.	2.0	24
57	Revealing intermittency in experimental data with steep power spectra. Europhysics Letters, 2010, 90, 50007.	2.0	13
58	Observation of the Nonlinear Dispersion Relation and Spatial Statistics of Wave Turbulence on the Surface of a Fluid. Physical Review Letters, 2010, 105, 144502.	7.8	44
59	Observation of Axisymmetric Solitary Waves on the Surface of a Ferrofluid. Physical Review Letters, 2010, 104, 094502.	7.8	22
60	Laboratory experiments on wave turbulence. Discrete and Continuous Dynamical Systems - Series B, 2010, 13, 819-840.	0.9	37
61	Two-Dimensional Melting of a Crystal of Ferrofluid Spikes. Physical Review Letters, 2009, 103, 144501.	7.8	8
62	Capillary wave turbulence on a spherical fluid surface in low gravity. Europhysics Letters, 2009, 86, 14002.	2.0	58
63	Experiment and Theory of the Electrical Conductivity of a Compressed Granular Metal. , 2009, , .		5
64	Fluctuations of energy flux in a simple dissipative out-of-equilibrium system. Physical Review E, 2009, 79, 041110.	2.1	16
65	Simulations of dense granular gases without gravity with impact-velocity-dependent restitution coefficient. Powder Technology, 2008, 182, 232-240.	4.2	14
66	Wave Turbulence on the Surface of a Ferrofluid in a Magnetic Field. Physical Review Letters, 2008, 101, 244502.	7.8	29
67	Fluctuations of Energy Flux in Wave Turbulence. Physical Review Letters, 2008, 100, 064503.	7.8	56
68	Scaling of ac electrical conductivity of powders under compression. Physical Review B, 2008, 77, .	3.2	15
69	Effects of electromagnetic waves on the electrical properties of contacts between grains. Europhysics Letters, 2007, 79, 54001.	2.0	7
70	Observation of Intermittency in Wave Turbulence. Physical Review Letters, 2007, 98, 154501.	7.8	72
71	Observation of Gravity-Capillary Wave Turbulence. Physical Review Letters, 2007, 98, 094503.	7.8	138
72	Some aspects of electrical conduction in granular systems of various dimensions. European Physical Journal E, 2007, 23, 255-64.	1.6	17

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73	Microgravity experiments on vibrated granular gases in a dilute regime: non-classical statistics. Journal of Statistical Mechanics: Theory and Experiment, 2006, 2006, P07012-P07012.	2.3	10
74	Collision statistics in a dilute granular gas fluidized by vibrations in low gravity. Europhysics Letters, 2006, 74, 830-836.	2.0	39
75	Electrical conductivity in granular media and Branlyâ€™s coherer: A simple experiment. American Journal of Physics, 2005, 73, 302-307.	0.7	41
76	Simulations of vibrated granular medium with impact-velocity-dependent restitution coefficient. Physical Review E, 2005, 71, 031302.	2.1	73
77	â€œTurbulentâ€• electrical transport in copper powders. Europhysics Letters, 2004, 65, 186-192.	2.0	27
78	Observation of near-critical reflection of internal waves in a stably stratified fluid. Physics of Fluids, 2004, 16, 1936-1941.	4.0	38
79	Nonlinear electrical conductivity in a 1D granular medium. European Physical Journal B, 2004, 38, 475-483.	1.5	38
80	Observation of Sommerfeld Precursors on a Fluid Surface. Physical Review Letters, 2003, 91, 064502.	7.8	22
81	Vibrated Granular Media as Experimentally Realizable Granular Gases. Lecture Notes in Physics, 2003, , 347-366.	0.7	2
82	Observation of Depression Solitary Surface Waves on a Thin Fluid Layer. Physical Review Letters, 2002, 89, 204501.	7.8	83
83	Experimental Study of a Granular Gas Fluidized by Vibrations. Lecture Notes in Physics, 2001, , 244-253.	0.7	4
84	Parametric stabilization of the Rosensweig instability. European Physical Journal B, 2000, 15, 3-6.	1.5	11
85	Heap corrugation and hexagon formation of powder under vertical vibrations. Physical Review E, 1999, 59, 5716-5720.	2.1	29
86	Cluster Formation in a Granular Medium Fluidized by Vibrations in Low Gravity. Physical Review Letters, 1999, 83, 440-443.	7.8	163
87	Shape of convective cell in Faraday experiment with fine granular materials. Physica A: Statistical Mechanics and Its Applications, 1999, 270, 97-104.	2.6	14
88	Cluster formation, pressure and density measurements in a granular medium fluidized by vibrations. European Physical Journal B, 1999, 9, 183-186.	1.5	79
89	Experimental determination of a state equation for dissipative granular gases. Journal De Chimie Physique Et De Physico-Chimie Biologique, 1999, 96, 1111-1116.	0.2	7
90	Collision of a 1-D column of beads with a wall. European Physical Journal B, 1998, 5, 111-131.	1.5	68

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91	Behavior of one inelastic ball bouncing repeatedly off the ground. European Physical Journal B, 1998, 3, 45-57.	1.5	146
92	An inertial tribometer for measuring microslip dissipation at a solidâ€“solid multicontact interface. Review of Scientific Instruments, 1998, 69, 2416-2420.	1.3	13
93	Solitary waves in a chain of beads under Hertz contact. Physical Review E, 1997, 56, 6104-6117.	2.1	426