Horst Punzmann

List of Publications by Year
in descending order

50 papers	1,226 citations	489802 18 h-index	406436 35 g-index
52 all docs	52 docs citations	52 times ranked	1000 citing authors

#	Article	IF	Citations
1	Field theory spin and momentum in water waves. Science Advances, 2022, 8, eabm1295.	4.7	25
2	Fluctuation-Induced Interaction in Turbulent Flows. Physical Review Letters, 2022, 128, 024503.	2.9	5
3	Rolling spinners on the water surface. Science Advances, 2021, 7, .	4.7	4
4	Surface waves control bacterial attachment and formation of biofilms in thin layers. Science Advances, 2020, 6, eaaz9386.	4.7	18
5	Nonequilibrium Thermodynamics of Turbulence-Driven Rotors. Physical Review Letters, 2020, 124, 254501.	2.9	6
6	Diffusion of ellipsoids in laboratory two-dimensional turbulent flow. Physics of Fluids, 2019, 31, .	1.6	3
7	Generation of Vortex Lattices at the Liquidâ€“Gas Interface Using Rotating Surface Waves. Fluids, 2019, 4, 74.	0.8	2
8	Tunable diffusion in wave-driven two-dimensional turbulence. Journal of Fluid Mechanics, 2019, 865, 811-830.	1.4	12
9	Local anisotropy of laboratory two-dimensional turbulence affects pair dispersion. Physics of Fluids, 2019, 31, 025111.	1.6	7
10	Confinement of surface spinners in liquid metamaterials. Proceedings of the National Academy of Sciences of the United States of America, 2019, 116, 25424-25429.	3.3	6
11	Passive propulsion in turbulent flows. Physical Review Fluids, 2019, 4, .	1.0	8
12	Extreme concentration fluctuations due to local reversibility of mixing in turbulent flows. Modern Physics Letters B, 2018, 32, 1840028.	1.0	1
13	Rectification of chaotic fluid motion in two-dimensional turbulence. Physical Review Fluids, 2018, 3, .	1.0	14
14	Wave-based liquid-interface metamaterials. Nature Communications, 2017, 8, 14325.	5.8	50
15	Towards minimal models for realistic granular materials: Tomographic analysis of bidispersed assemblies of ellipsoids. EPJ Web of Conferences, 2017, 140, 06030.	0.1	2
16	WAVE-GENERATED FLOWS ON THE WATER SURFACE. International Journal of Modern Physics Conference Series, 2016, 42, 1660179.	0.7	0
17	Braid Entropy of Two-Dimensional Turbulence. Scientific Reports, 2016, 5, 18564.	1.6	13
18	SIMULTANEOUS OBSERVATION OF ENERGY AND ENSTROPHY CASCADES IN THIN-LAYER TURBULENCE. International Journal of Modern Physics Conference Series, 2016, 42, 1660185.	0.7	1

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19	Inhibition of wave-driven two-dimensional turbulence by viscoelastic films of proteins. Physical Review E, 2015, 92, 023027.	0.8	11
20	Wave-particle interaction in the Faraday waves. European Physical Journal E, 2015, 38, 106.	0.7	13
21	TURBULENCE DRIVEN BY FARADAY SURFACE WAVES. International Journal of Modern Physics Conference Series, 2014, 34, 1460379.	0.7	2
22	Taylor Particle Dispersion during Transition to Fully Developed Two-Dimensional Turbulence. Physical Review Letters, 2014, 112, 104501.	2.9	21
23	Three-Dimensional Fluid Motion in Faraday Waves: Creation of Vorticity and Generation of Two-Dimensional Turbulence. Physical Review X, 2014, 4, .	2.8	35
24	Generation and reversal of surface flows by propagating waves. Nature Physics, 2014, 10, 658-663.	6.5	44
25	Inverse Energy Cascade and Emergence of Large Coherent Vortices in Turbulence Driven by Faraday Waves. Physical Review Letters, 2013, 110, 194501.	2.9	74
26	Lagrangian scale of particle dispersion in turbulence. Nature Communications, 2013, 4, 2013.	5.8	47
27	Parametrically Excited Water Surface Ripples as Ensembles of Oscillons. Physical Review Letters, 2012, 108, 034502.	2.9	43
28	Oscillon Dynamics and Rogue Wave Generation in Faraday Surface Ripples. Physical Review Letters, 2012, 109, 114502.	2.9	48
29	Modulation instability and capillary wave turbulence. Europhysics Letters, 2010, 91, 14002.	0.7	38
30	Capillary Rogue Waves. Physical Review Letters, 2010, 104, 104503.	2.9	330
31	Xiaet al.Reply:. Physical Review Letters, 2009, 102, .	2.9	5
32	Phase Randomization of Three-Wave Interactions in Capillary Waves. Physical Review Letters, 2009, 103, 064502.	2.9	35
33	Universality of Kolmogorov law in spectrally condensed turbulence in thin layers. Springer Proceedings in Physics, 2009, , 709-710.	0.1	2
34	Observation of weak turbulence spectra of capillary waves. Springer Proceedings in Physics, 2009, , 725-728.	0.1	0
35	Turbulence-Condensate Interaction in Two Dimensions. Physical Review Letters, 2008, 101, 194504.	2.9	69
36	Suppression of Turbulence by Self-Generated and Imposed Mean Flows. Physical Review Letters, 2007, 99, 164502.	2.9	54

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37	Spectra of quasi-2D turbulence in plasma and fluid during spectral condensation. , 2007, , 274-276.		0
38	Zonal flows, GAM, and radial electric field in the H-1 heliac. European Physical Journal D, 2006, 56, 1353-1359.	0.4	1
39	Strong ExB Shear Flows in the Transport-Barrier Region inH-Mode Plasma. Physical Review Letters, 2006, 97, 255003.	2.9	23
40	Lecture Notes on Turbulence and Coherent Structures in Fluids, Plasmas and Nonlinear Media. World Scientific Lecture Notes in Complex Systems, 2006, , .	0.1	6
41	Experimental Studies of Plasma Turbulence. World Scientific Lecture Notes in Complex Systems, 2006, , 233-279.	0.1	0
42	Spectral condensation of turbulence in plasmas and fluids and its role in low-to-high phase transitions in toroidal plasma. Physical Review E, 2005, 71, 046409.	0.8	70
43	Fluctuations and stability of plasmas in the H-1NF heliac. Nuclear Fusion, 2004, 44, 279-286.	1.6	17
44	Formation and Structure of Transport Barriers During Confinement Transitions in Toroidal Plasma. Physical Review Letters, 2004, 93, 125003.	2.9	23
45	Spectral Energy Transfer, Generation of Zonal Flows and Their Role in Confinement Transitions. Fusion Science and Technology, 2004, 46, 279-287.	0.6	2
46	Multichannel visible spectroscopy diagnostic for particle transport studies in the H-1 heliac. Review of Scientific Instruments, 2003, 74, 2048-2051.	0.6	5
47	Overview and Results from the H-1 National Facility. AIP Conference Proceedings, 2003, , .	0.3	1
48	Measurements of poloidal rotation velocity using cross-correlation spectroscopy in the H-1 heliac. Review of Scientific Instruments, 2003, 74, 2044-2047.	0.6	1
49	Power Absorption Calculation for Electron Cyclotron Resonance Heating in H-1 Heliac. Journal of the Physical Society of Japan, 2001, 70, 617-620.	0.7	4
50	Polarizers with non-rectangular grooves for high power millimeter waves. Fusion Engineering and Design, 2001, 53, 491-497.	1.0	24