Daniel P Lathrop

List of Publications by Year
in descending order

75 papers	3,811 citations	126907 33 h-index	123424 61 g-index
78 all docs	78 docs citations	78 times ranked	2287 citing authors

#	Article	IF	Citations
1	Fluid Dynamics Experiments for Planetary Interiors. Surveys in Geophysics, 2022, 43, 229-261.	4.6	13
2	Experimental study of rough spherical Couette flows: Increasing helicity toward a dynamo state. Physical Review Fluids, 2021, 6, .	2.5	3
3	RF Signal Classification using Boolean Reservoir Computing on an FPGA. , 2021, , .		4
4	Reconnection scaling in quantum fluids. Proceedings of the National Academy of Sciences of the United States of America, 2019, 116, 1924-1928.	7.1	25
5	Dynamics of analog logic-gate networks for machine learning. Chaos, 2019, 29, 123130.	2.5	7
6	The impact of a deep-water plunging breaker on a wall with its bottom edge close to the mean water surface. Journal of Fluid Mechanics, 2018, 843, 680-721.	3.4	7
7	Vortex Creation in Quantum Fluid Phase Transitions: An Experimental Perspective. , 2017, , 71-79.		0
8	Sub-micron solid air tracers for quantum vortices and liquid helium flows. Review of Scientific Instruments, 2016, 87, 025106.	1.3	20
9	Azimuthal velocity profiles in Rayleigh-stable Taylorâ€“Couette flow and implied axial angular momentum transport. Journal of Fluid Mechanics, 2015, 774, 342-362.	3.4	13
10	True random number generation using CMOS Boolean chaotic oscillator. Microelectronics Journal, 2015, 46, 1364-1370.	2.0	36
11	Liquid sodium models of the Earthâ€™s core. Progress in Earth and Planetary Science, 2015, 2, .	3.0	10
12	Helioseismology in a bottle: modal acoustic velocimetry. New Journal of Physics, 2014, 16, 113005.	2.9	6
13	Nanoparticle dispersion in superfluid helium. Review of Scientific Instruments, 2014, 85, 073705.	1.3	16
14	Visualization of two-fluid flows of superfluid helium-4. Proceedings of the National Academy of Sciences of the United States of America, 2014, 111, 4653-4658.	7.1	95
15	Chaotic Oscillations in a CMOS Inverter Coupled With ESD Protection Circuits Under Radio Wave Excitation. IEEE Transactions on Electromagnetic Compatibility, 2014, 56, 530-538.	2.2	4
16	Direct observation of Kelvin waves excited by quantized vortex reconnection. Proceedings of the National Academy of Sciences of the United States of America, 2014, 111, 4707-4710.	7.1	125
17	A turbulent, high magnetic Reynolds number experimental model of Earth's core. Journal of Geophysical Research: Solid Earth, 2014, 119, 4538-4557.	3.4	37
18	Suppression of sodium fires with liquid nitrogen. Fire Safety Journal, 2013, 58, 204-207.	3.1	19

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19	Lord Kelvin's vortex rings. Nature Physics, 2013, 9, 207-208.	16.7	0
20	Liquid nitrogen in fluid dynamics: Visualization and velocimetry using frozen particles. Review of Scientific Instruments, 2012, 83, 085101.	1.3	11
21	Excitation of inertial modes in an experimental spherical Couette flow. Physical Review E, 2012, 86, 026304.	2.1	28
22	Modeling chaos in on-chip ultra-wideband chaotic oscillator. , 2012, , .		0
23	Source of chaos in radio frequency MOSFETs. , 2011, , .		0
24	Quantum Turbulence. Annual Review of Condensed Matter Physics, 2011, 2, 213-234.	14.5	71
25	Magnetic dynamos in the lab. Physics Today, 2011, 64, 40-45.	0.3	61
26	The Twente turbulent Taylorâ€“Couette (T3C) facility: Strongly turbulent (multiphase) flow between two independently rotating cylinders. Review of Scientific Instruments, 2011, 82, 025105.	1.3	59
27	Making a supersonic jet in your kitchen. Physics Magazine, 2010, 3, .	0.1	1
28	Reconnection dynamics for quantized vortices. Physica D: Nonlinear Phenomena, 2010, 239, 1367-1377.	2.8	74
29	Selection of inertial modes in spherical Couette flow. Physical Review E, 2010, 81, 026311.	2.1	24
30	Boolean chaos. Physical Review E, 2009, 80, 045202.	2.1	72
31	Particles for tracing turbulent liquid helium. Experiments in Fluids, 2008, 44, 887-896.	2.4	41
32	Visualization of Superfluid Helium Flow. Journal of the Physical Society of Japan, 2008, 77, 111007.	1.6	75
33	Characterization of reconnecting vortices in superfluid helium. Proceedings of the National Academy of Sciences of the United States of America, 2008, 105, 13707-13710.	7.1	184
34	Velocity Statistics Distinguish Quantum Turbulence from Classical Turbulence. Physical Review Letters, 2008, 101, 154501.	7.8	174
35	Bubbly Turbulent Drag Reduction Is a Boundary Layer Effect. Physical Review Letters, 2007, 98, 084501.	7.8	51
36	Inertial waves in rotating grid turbulence. Physics of Fluids, 2007, 19, 071701.	4.0	43

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37	Inertial waves driven by differential rotation in a planetary geometry. Geophysical and Astrophysical Fluid Dynamics, 2007, 101, 469-487.	1.2	62
38	Bubbly drag reduction in turbulent Taylor-Couette flow. Springer Proceedings in Physics, 2007, , 416-417.	0.2	0
39	Hysteretic gravity-wave bifurcation in a highly turbulent swirling flow. Journal of Fluid Mechanics, 2006, 551, 49.	3.4	19
40	Introduction: Third Annual Gallery of Nonlinear Images (Baltimore, Maryland, 2006). Chaos, 2006, 16, 041101.	2.5	0
41	Early geodynamo work. Physics Today, 2006, 59, 15-15.	0.3	2
42	Driven inertial waves in spherical Couette flow. Chaos, 2006, 16, 041105.	2.5	7
43	Visualization of quantized vortices. Nature, 2006, 441, 588-588.	27.8	322
44	Turbulence lost in transience. Nature, 2006, 443, 36-37.	27.8	3
45	Dynamics of a piecewise smooth map with singularity. Physics Letters, Section A: General, Atomic and Solid State Physics, 2005, 337, 87-92.	2.1	7
46	Bistability and hysteresis in a highly turbulent swirling flow. Physica A: Statistical Mechanics and Its Applications, 2005, 356, 162-166.	2.6	5
47	Visualizing the invisible: Ultrasound velocimetry in liquid sodium. Chaos, 2005, 15, 041104.	2.5	6
48	Drag Reduction in Bubbly Taylor-Couette Turbulence. Physical Review Letters, 2005, 94, 044501.	7.8	87
49	Liquid sodium model of geophysical core convection. Physics of the Earth and Planetary Interiors, 2005, 153, 136-149.	1.9	30
50	Characterization of the magnetorotational instability from a turbulent background state. AIP Conference Proceedings, 2004, , .	0.4	0
51	Characterizing intense rotation and dissipation in turbulent flows. Chaos, 2004, 14, S8-S8.	2.5	3
52	Generalized Synchronization of Spatiotemporal Chaos in a Liquid Crystal Spatial Light Modulator. Physical Review Letters, 2004, 93, 084101.	7.8	44
53	Experimental Observation and Characterization of the Magnetorotational Instability. Physical Review Letters, 2004, 93, 114502.	7.8	198
54	Measuring intense rotation and dissipation in turbulent flows. Nature, 2003, 421, 146-149.	27.8	140

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55	Lorentz force effects in magneto-turbulence. Physics of the Earth and Planetary Interiors, 2003, 135, 137-159.	1.9	22
56	Pattern formation in a monolayer of magnetic spheres. Physical Review E, 2003, 68, 026207.	2.1	45
57	Smooth and rough boundaries in turbulent Taylor-Couette flow. Physical Review E, 2003, 68, 036307.	2.1	39
58	Three-dimensional optical billiard chaotic scattering. Physica D: Nonlinear Phenomena, 2001, 154, 207-218.	2.8	18
59	Laboratory experiments on the transition to MHD dynamos. Plasma Physics and Controlled Fusion, 2001, 43, A151-A160.	2.1	15
60	Blowout bifurcations and the onset of magnetic dynamo action. Physics of Plasmas, 2001, 8, 1944-1952.	1.9	22
61	Blowout bifurcations and the onset of magnetic activity in turbulent dynamos. Physical Review E, 2001, 63, 066211.	2.1	37
62	Characterization of experimental dynamos. Geophysical Journal International, 2000, 142, 52-58.	2.4	17
63	Singularity dynamics in curvature collapse and jet eruption on a fluid surface. Nature, 2000, 403, 401-404.	27.8	210
64	Turbulence and Wave Breaking Effects on Air-Water Gas Exchange. Physical Review Letters, 2000, 85, 2030-2033.	7.8	19
65	Liquid metal flow encasing a magnetic cavity. Physics of Plasmas, 2000, 7, 1081-1084.	1.9	2
66	Toward a self-generating magnetic dynamo: The role of turbulence. Physical Review E, 2000, 61, 5287-5294.	2.1	76
67	Breaking Faraday Waves: Critical Slowing of Droplet Ejection Rates. Physical Review Letters, 1999, 82, 3062-3065.	7.8	44
68	Power-law singularities in gravity-capillary waves. Physica D: Nonlinear Phenomena, 1998, 123, 183-205.	2.8	29
69	Viscous effects in droplet-ejecting capillary waves. Physical Review E, 1997, 56, 472-475.	2.1	73
70	Breaking waves: Bifurcations leading to a singular wave state. Physical Review E, 1997, 56, 4157-4161.	2.1	8
71	Threshold Dynamics of Singular Gravity-Capillary Waves. Physical Review Letters, 1996, 76, 1824-1827.	7.8	70
72	Synthetic turbulence. Physical Review E, 1994, 49, 5179-5194.	2.1	62

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73	Transition to shear-driven turbulence in Couette-Taylor flow. Physical Review A, 1992, 46, 6390-6405.	2.5	213
74	Turbulent flow between concentric rotating cylinders at large Reynolds number. Physical Review Letters, 1992, 68, 1515-1518.	7.8	143
75	Characterization of an experimental strange attractor by periodic orbits. Physical Review A, 1989, 40, 4028-4031.	2.5	301