Nicolas Plihon

List of Publications by Year
in descending order

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Version: 2024-02-01

63 papers	1,002 citations	516561 16 h-index	454834 30 g-index
64 all docs	64 docs citations	64 times ranked	537 citing authors

#	Article	IF	Citations
1	Experimental validation of fluid inertia models for a cylinder settling in a quiescent flow. Physical Review Fluids, 2022, 7, .	1.0	8
2	High-speed imaging of magnetized plasmas: When electron temperature matters. Physics of Plasmas, 2022, 29, 032104.	0.7	6
3	The dynamo properties of the reversed field pinch velocity field. Physics of Plasmas, 2022, 29, 032306.	0.7	0
4	Formation of glacier tables caused by differential ice melting: field observation and modelling. Cryosphere, 2022, 16, 2617-2628.	1.5	1
5	Rare Event-Triggered Transitions in Aerodynamic Bifurcation. Physical Review Letters, 2021, 126, 104501.	2.9	8
6	Rotation and shear control of a weakly magnetized plasma column using current injection by emissive electrodes. Journal of Plasma Physics, 2021, 87, .	0.7	5
7	The physics of Magnus gliders. American Journal of Physics, 2021, 89, 843-850.	0.3	1
8	Onset of Glacier Tables. Physical Review Letters, 2021, 127, 108501.	2.9	7
9	Sublimation-driven morphogenesis of Zen stones on ice surfaces. Proceedings of the National Academy of Sciences of the United States of America, 2021, 118, .	3.3	5
10	Sedimentation of a suspension of paramagnetic particles in an external magnetic field. Physical Review E, 2020, 102, 023101.	0.8	3
11	Scaling laws in axisymmetric magnetohydrodynamic duct flows. Physical Review Fluids, 2020, 5, .	1.0	5
12	Acoustic emission from successive impacts on elastic membranes: The physics of the screaming balloon. Europhysics Letters, 2019, 126, 64001.	0.7	1
13	Propelled Strings: Rising from Friction. Physical Review Letters, 2019, 123, 144501.	2.9	2
14	Pattern Formation in Low-Pressure Radio-Frequency Plasmas due to a Transport Instability. Physical Review Letters, 2019, 123, 265001.	2.9	13
15	Heat transfer and evaporative cooling in the function of pot-in-pot coolers. American Journal of Physics, 2018, 86, 206-211.	0.3	9
16	Synthetic schlierenâ€”application to the visualization and characterization of air convection. European Journal of Physics, 2018, 39, 035803.	0.3	3
17	Oscillations in a half-empty bottle. American Journal of Physics, 2018, 86, 119-125.	0.3	2
18	Flowrate measurements of conducting fluids in pipes using the magnetic distortion probe. Measurement Science and Technology, 2018, 29, 025302.	1.4	3

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19	Hydraulic logic gates: building a digital water computer. European Journal of Physics, 2018, 39, 025801.	0.3	4
20	Stability Analysis of an Array of Magnets: When Will It Jump?. Physical Review Letters, 2018, 120, 264301.	2.9	2
21	Strongly emissive plasma-facing material under space-charge limited regime: Application to emissive probes. Physics of Plasmas, 2017, 24, .	0.7	12
22	Magnetic cannon: The physics of the Gauss rifle. American Journal of Physics, 2017, 85, 495-502.	0.3	11
23	The physics of a popsicle stick bomb. American Journal of Physics, 2017, 85, 783-790.	0.3	4
24	Why do aged fluorescent tubes flicker?. European Journal of Physics, 2017, 38, 065204.	0.3	0
25	Dynamo Enhancement and Mode Selection Triggered by High Magnetic Permeability. Physical Review Letters, 2017, 119, 234501.	2.9	11
26	How tall can gelatin towers be? An introduction to elasticity and buckling. American Journal of Physics, 2017, 85, 908-914.	0.3	5
27	Stochastic reversal dynamics of two interacting magnetic dipoles: A simple model experiment. Physical Review E, 2016, 94, 012224.	0.8	4
28	Lorentz force effects in the Bullardâ€“von KÃ¡rmÃ¡n dynamo: saturation, energy balance and subcriticality. Journal of Fluid Mechanics, 2015, 775, 501-523.	1.4	4
29	Flow dynamics and magnetic induction in the von-KÃ¡rmÃ¡n plasma experiment. Journal of Plasma Physics, 2015, 81, .	0.7	13
30	How plasma parameters fluctuations influence emissive probe measurements. Physics of Plasmas, 2015, 22, 053511.	0.7	8
31	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
32	Dynamo efficiency controlled by hydrodynamic bistability. Physical Review E, 2014, 89, 063023.	0.8	2
33	Publisher's Note: Dynamo efficiency controlled by hydrodynamic bistability [Phys. Rev. E89, 063023 (2014)]. Physical Review E, 2014, 90, .	0.8	1
34	Long-term memory in experiments and numerical simulations of hydrodynamic and magnetohydrodynamic turbulence. Physical Review E, 2014, 89, 053005.	0.8	7
35	Dynamo threshold detection in the von KÃ¡rmÃ¡n sodium experiment. Physical Review E, 2013, 88, 013002.	0.8	29
36	Symmetry and couplings in stationary Von KÃ¡rmÃ¡n sodium dynamos. New Journal of Physics, 2012, 14, 013044.	1.2	18

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37	Experimental Observation of Spatially Localized Dynamo Magnetic Fields. Physical Review Letters, 2012, 108, 144501.	2.9	14
38	Transition from hydrodynamic turbulence to magnetohydrodynamic turbulence in von KÃ¡rmÃ¡n flows. Journal of Fluid Mechanics, 2012, 693, 243-260.	1.4	4
39	DIRECT OBSERVATION OF THE TURBULENT emf AND TRANSPORT OF MAGNETIC FIELD IN A LIQUID SODIUM EXPERIMENT. Astrophysical Journal, 2012, 759, 80.	1.6	16
40	Ion acoustic waves and double-layers in electronegative expanding plasmas. Physics of Plasmas, 2011, 18, 082102.	0.7	32
41	The magnetic-distortion probe: Velocimetry in conducting fluids. Review of Scientific Instruments, 2011, 82, 095112.	0.6	14
42	Dynamo regimes and transitions in the VKS experiment. European Physical Journal B, 2010, 77, 459-468.	0.6	70
43	Laboratory Dynamo Experiments. Space Science Reviews, 2010, 152, 543-564.	3.7	25
44	Induction in a von KÃ¡rmÃ¡n flow driven by ferromagnetic impellers. New Journal of Physics, 2010, 12, 033006.	1.2	27
45	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
46	Flow of liquid metal in a cylindrical crystallizer generating two-directional MHD-stirring. Magnetohydrodynamics, 2010, 46, 69-78.	0.5	1
47	STATISTICAL ANALYSIS OF MAGNETIC FIELD REVERSALS IN LABORATORY DYNAMO AND IN PALEOMAGNETIC MEASUREMENTS. International Journal of Modern Physics B, 2009, 23, 5483-5491.	1.0	2
48	The von KÃ¡rmÃ¡n Sodium experiment: Turbulent dynamical dynamos. Physics of Fluids, 2009, 21, .	1.6	89
49	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
50	Dynamics of a turbulent spin-down flow inside a torus. Physics of Fluids, 2009, 21, 045108.	1.6	16
51	Laboratory Dynamo Experiments. Space Sciences Series of ISSI, 2009, , 543-564.	0.0	1
52	The VKS experiment: turbulent dynamical dynamos. Comptes Rendus Physique, 2008, 9, .	0.3	12
53	Chaotic Dynamos Generated by a Turbulent Flow of Liquid Sodium. Physical Review Letters, 2008, 101, 074502.	2.9	67
54	Experimental investigation of double layers in expanding plasmas. Physics of Plasmas, 2007, 14, 013506.	0.7	91

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55	Propagating double layers in electronegative plasmas. Physics of Plasmas, 2007, 14, 053508.	0.7	35
56	Experimental Studies of Helicon Double Layers for Future High Power Plasma Propulsion. , 2006, , .		5
57	An experimental Bullardâ€“von KÃ¡rmÃ¡n dynamo. New Journal of Physics, 2006, 8, 329-329.	1.2	24
58	Equilibrium model for two low-pressure electronegative plasmas connected by a double layer. Physics of Plasmas, 2006, 13, 093504.	0.7	8
59	Transition from unstable electrostatic confinement to stable magnetic confinement in a helicon reactor operating with Arâ•SF6 gas mixtures. Journal of Applied Physics, 2006, 99, 103302.	1.1	9
60	Experimental Evidence of a Double Layer in a Large Volume Helicon Reactor. Physical Review Letters, 2005, 95, 205002.	2.9	64
61	Periodic formation and propagation of double layers in the expanding chamber of an inductive discharge operating in Arâ•SF6 mixtures. Journal of Applied Physics, 2005, 98, 023306.	1.1	39
62	Double layer formation in the expanding region of an inductively coupled electronegative plasma. Applied Physics Letters, 2005, 86, 091501.	1.5	68
63	Spatially limited ion acoustic wave activity in low-pressure helicon discharges. Physics of Plasmas, 2004, 11, 4596-4602.	0.7	13