Nicolas Plihon

List of Publications by Year
in descending order

Source: https://exaly.com/author-pdf/1856377/publications.pdf

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 investigation of double layers in expanding plasmas. Physics of Plasmas, 2007, 14, 013506.	0.7	91
2	The von KÃ¡rmÃ¡n Sodium experiment: Turbulent dynamical dynamos. Physics of Fluids, 2009, 21, .	1.6	89
3	Dynamo regimes and transitions in the VKS experiment. European Physical Journal B, 2010, 77, 459-468.	0.6	70
4	Double layer formation in the expanding region of an inductively coupled electronegative plasma. Applied Physics Letters, 2005, 86, 091501.	1.5	68
5	Chaotic Dynamos Generated by a Turbulent Flow of Liquid Sodium. Physical Review Letters, 2008, 101, 074502.	2.9	67
6	Experimental Evidence of a Double Layer in a Large Volume Helicon Reactor. Physical Review Letters, 2005, 95, 205002.	2.9	64
7	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
8	Propagating double layers in electronegative plasmas. Physics of Plasmas, 2007, 14, 053508.	0.7	35
9	Ion acoustic waves and double-layers in electronegative expanding plasmas. Physics of Plasmas, 2011, 18, 082102.	0.7	32
10	Dynamo threshold detection in the von KÃ¡rmÃ¡n sodium experiment. Physical Review E, 2013, 88, 013002.	0.8	29
11	Induction in a von KÃ¡rmÃ¡n flow driven by ferromagnetic impellers. New Journal of Physics, 2010, 12, 033006.	1.2	27
12	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
13	Laboratory Dynamo Experiments. Space Science Reviews, 2010, 152, 543-564.	3.7	25
14	An experimental Bullardâ€“von KÃ¡rmÃ¡n dynamo. New Journal of Physics, 2006, 8, 329-329.	1.2	24
15	Symmetry and couplings in stationary Von KÃ¡rmÃ¡n sodium dynamos. New Journal of Physics, 2012, 14, 013044.	1.2	18
16	Dynamics of a turbulent spin-down flow inside a torus. Physics of Fluids, 2009, 21, 045108.	1.6	16
17	DIRECT OBSERVATION OF THE TURBULENT emf AND TRANSPORT OF MAGNETIC FIELD IN A LIQUID SODIUM EXPERIMENT. Astrophysical Journal, 2012, 759, 80.	1.6	16
18	The magnetic-distortion probe: Velocimetry in conducting fluids. Review of Scientific Instruments, 2011, 82, 095112.	0.6	14

#	Article	IF	Citations
19	Experimental Observation of Spatially Localized Dynamo Magnetic Fields. Physical Review Letters, 2012, 108, 144501.	2.9	14
20	Spatially limited ion acoustic wave activity in low-pressure helicon discharges. Physics of Plasmas, 2004, 11, 4596-4602.	0.7	13
21	Flow dynamics and magnetic induction in the von-KÃ¡rmÃ¡n plasma experiment. Journal of Plasma Physics, 2015, 81, .	0.7	13
22	Pattern Formation in Low-Pressure Radio-Frequency Plasmas due to a Transport Instability. Physical Review Letters, 2019, 123, 265001.	2.9	13
23	The VKS experiment: turbulent dynamical dynamos. Comptes Rendus Physique, 2008, 9, .	0.3	12
24	Strongly emissive plasma-facing material under space-charge limited regime: Application to emissive probes. Physics of Plasmas, 2017, 24, .	0.7	12
25	Magnetic cannon: The physics of the Gauss rifle. American Journal of Physics, 2017, 85, 495-502.	0.3	11
26	Dynamo Enhancement and Mode Selection Triggered by High Magnetic Permeability. Physical Review Letters, 2017, 119, 234501.	2.9	11
27	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
28	Heat transfer and evaporative cooling in the function of pot-in-pot coolers. American Journal of Physics, 2018, 86, 206-211.	0.3	9
29	Equilibrium model for two low-pressure electronegative plasmas connected by a double layer. Physics of Plasmas, 2006, 13, 093504.	0.7	8
30	How plasma parameters fluctuations influence emissive probe measurements. Physics of Plasmas, 2015, 22, 053511.	0.7	8
31	Rare Event-Triggered Transitions in Aerodynamic Bifurcation. Physical Review Letters, 2021, 126, 104501.	2.9	8
32	Experimental validation of fluid inertia models for a cylinder settling in a quiescent flow. Physical Review Fluids, 2022, 7, .	1.0	8
33	Long-term memory in experiments and numerical simulations of hydrodynamic and magnetohydrodynamic turbulence. Physical Review E, 2014, 89, 053005.	0.8	7
34	Onset of Glacier Tables. Physical Review Letters, 2021, 127, 108501.	2.9	7
35	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
36	High-speed imaging of magnetized plasmas: When electron temperature matters. Physics of Plasmas, 2022, 29, 032104.	0.7	6

#	Article	IF	Citations
37	Experimental Studies of Helicon Double Layers for Future High Power Plasma Propulsion. , 2006, , .		5
38	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
39	How tall can gelatin towers be? An introduction to elasticity and buckling. American Journal of Physics, 2017, 85, 908-914.	0.3	5
40	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
41	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
42	Scaling laws in axisymmetric magnetohydrodynamic duct flows. Physical Review Fluids, 2020, 5, .	1.0	5
43	Transition from hydrodynamic turbulence to magnetohydrodynamic turbulence in von KÃ¡rmÃ¡n flows. Journal of Fluid Mechanics, 2012, 693, 243-260.	1.4	4
44	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
45	Stochastic reversal dynamics of two interacting magnetic dipoles: A simple model experiment. Physical Review E, 2016, 94, 012224.	0.8	4
46	The physics of a popsicle stick bomb. American Journal of Physics, 2017, 85, 783-790.	0.3	4
47	Hydraulic logic gates: building a digital water computer. European Journal of Physics, 2018, 39, 025801.	0.3	4
48	Synthetic schlierenâ€”application to the visualization and characterization of air convection. European Journal of Physics, 2018, 39, 035803.	0.3	3
49	Flowrate measurements of conducting fluids in pipes using the magnetic distortion probe. Measurement Science and Technology, 2018, 29, 025302.	1.4	3
50	Sedimentation of a suspension of paramagnetic particles in an external magnetic field. Physical Review E, 2020, 102, 023101.	0.8	3
51	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
52	Dynamo efficiency controlled by hydrodynamic bistability. Physical Review E, 2014, 89, 063023.	0.8	2
53	Oscillations in a half-empty bottle. American Journal of Physics, 2018, 86, 119-125.	0.3	2
54	Stability Analysis of an Array of Magnets: When Will It Jump?. Physical Review Letters, 2018, 120, 264301.	2.9	2

#	Article	IF	Citations
55	Propelled Strings: Rising from Friction. Physical Review Letters, 2019, 123, 144501.	2.9	2
56	Publisher's Note: Dynamo efficiency controlled by hydrodynamic bistability [Phys. Rev. E89, 063023 (2014)]. Physical Review E, 2014, 90, .	0.8	1
57	Acoustic emission from successive impacts on elastic membranes: The physics of the screaming balloon. Europhysics Letters, 2019, 126, 64001.	0.7	1
58	The physics of Magnus gliders. American Journal of Physics, 2021, 89, 843-850.	0.3	1
59	Flow of liquid metal in a cylindrical crystallizer generating two-directional MHD-stirring. Magnetohydrodynamics, 2010, 46, 69-78.	0.5	1
60	Laboratory Dynamo Experiments. Space Sciences Series of ISSI, 2009, , 543-564.	0.0	1
61	Formation of glacier tables caused by differential ice melting: field observation and modelling. Cryosphere, 2022, 16, 2617-2628.	1.5	1
62	Why do aged fluorescent tubes flicker?. European Journal of Physics, 2017, 38, 065204.	0.3	0
63	The dynamo properties of the reversed field pinch velocity field. Physics of Plasmas, 2022, 29, 032306.	0.7	0