

Nuno F Loureiro

List of Publications by Year in descending order

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71
papers

3,062
citations

201674

27
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155660

55
g-index

72
all docs

72
docs citations

72
times ranked

2001
citing authors

#	ARTICLE	IF	CITATIONS
1	Spontaneous magnetization of collisionless plasma. Proceedings of the National Academy of Sciences of the United States of America, 2022, 119, e2119831119.	7.1	13
2	Plasma Dynamics in Low-Electron-Beta Environments. Frontiers in Astronomy and Space Sciences, 2021, 8, .	2.8	2
3	Laminar and turbulent plasmoid ejection in a laboratory Parker Spiral current sheet. Journal of Plasma Physics, 2021, 87, .	2.1	3
4	Inverse energy transfer in decaying, three-dimensional, non-helical magnetic turbulence due to magnetic reconnection. Monthly Notices of the Royal Astronomical Society, 2021, 501, 3074-3087.	4.4	13
5	Dynamic Phase Alignment in Navier-Stokes Turbulence. Physical Review Letters, 2021, 127, 274501.	7.8	3
6	Statistical description of coalescing magnetic islands via magnetic reconnection. Journal of Plasma Physics, 2021, 87, .	2.1	9
7	Interactions of magnetized plasma flows in pulsed-power driven experiments. Plasma Physics and Controlled Fusion, 2020, 62, 014020.	2.1	15
8	Multi-scale dynamics of magnetic flux tubes and inverse magnetic energy transfer. Journal of Plasma Physics, 2020, 86, .	2.1	27
9	Tearing Instability in Alfvén and Kinetic-Alfvén Turbulence. Journal of Geophysical Research: Space Physics, 2020, 125, e2020JA028185.	2.4	7
10	Nonlinear Reconnection in Magnetized Turbulence. Astrophysical Journal, 2020, 890, 55.	4.5	22
11	Dynamic Phase Alignment in Inertial Alfvén Turbulence. Physical Review Letters, 2020, 125, 265101.	7.8	10
12	Validation of gyrokinetic simulations in NSTX and projections for high-k turbulence measurements in NSTX-U. Physics of Plasmas, 2020, 27, 122505.	1.9	4
13	Validation of gyrokinetic simulations of a National Spherical Torus experiment H-mode plasma and comparisons with a high- k scattering synthetic diagnostic. Plasma Physics and Controlled Fusion, 2019, 61, 115015.	2.1	6
14	Linear theory of electron-plasma waves at arbitrary collisionality. Journal of Plasma Physics, 2019, 85, .	2.1	12
15	Dependence of alpha-particle-driven Alfvén eigenmode linear stability on device magnetic field strength and consequences for next-generation tokamaks. Nuclear Fusion, 2019, 59, 046020.	3.5	4
16	Numerical Study of Inertial Kinetic-Alfvén Turbulence. Astrophysical Journal, 2019, 870, 103.	4.5	25
17	Magnetic island merger as a mechanism for inverse magnetic energy transfer. Physical Review Research, 2019, 1, .	3.6	21
18	Role of reconnection in inertial kinetic-Alfvén turbulence. Physical Review Research, 2019, 1, .	3.6	24

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19	Fully Kinetic Simulation of 3D Kinetic Alfvén Turbulence. <i>Physical Review Letters</i> , 2018, 120, 105101.	7.8	70
20	Ion heating and magnetic flux pile-up in a magnetic reconnection experiment with super-Alfvénic plasma inflows. <i>Physics of Plasmas</i> , 2018, 25, 042108.	1.9	10
21	Symmetries of a reduced fluid-gyrokinetic system. <i>Journal of Plasma Physics</i> , 2018, 84, .	2.1	1
22	Development of tearing instability in a current sheet forming by sheared incompressible flow. <i>Journal of Plasma Physics</i> , 2018, 84, .	2.1	11
23	Fully kinetic Biermann battery and associated generation of pressure anisotropy. <i>Physical Review E</i> , 2018, 97, 033204.	2.1	5
24	An experimental platform for pulsed-power driven magnetic reconnection. <i>Physics of Plasmas</i> , 2018, 25, .	1.9	20
25	Calculations in the theory of tearing instability. <i>Journal of Physics: Conference Series</i> , 2018, 1100, 012003.	0.4	9
26	Plasmoid instability in the semi-collisional regime. <i>Journal of Plasma Physics</i> , 2018, 84, .	2.1	11
27	Influence of tearing instability on magnetohydrodynamic turbulence. <i>Physical Review E</i> , 2018, 98, .	2.1	20
28	Turbulence in Magnetized Pair Plasmas. <i>Astrophysical Journal Letters</i> , 2018, 866, L14.	8.3	16
29	Theory of the Drift-Wave Instability at Arbitrary Collisionality. <i>Physical Review Letters</i> , 2018, 121, 165001.	7.8	15
30	Fully Kinetic Large-scale Simulations of the Collisionless Magnetorotational Instability. <i>Astrophysical Journal</i> , 2018, 859, 149.	4.5	11
31	10.1063/1.5023664.1. , 2018, , .		0
32	Anomalous Heating and Plasmoid Formation in a Driven Magnetic Reconnection Experiment. <i>Physical Review Letters</i> , 2017, 118, 085001.	7.8	36
33	Fully Kinetic versus Reduced-kinetic Modeling of Collisionless Plasma Turbulence. <i>Astrophysical Journal</i> , 2017, 847, 28.	4.5	60
34	Magnetohydrodynamic Turbulence Mediated by Reconnection. <i>Astrophysical Journal</i> , 2017, 844, 125.	4.5	64
35	A drift-kinetic analytical model for scrape-off layer plasma dynamics at arbitrary collisionality. <i>Journal of Plasma Physics</i> , 2017, 83, .	2.1	28
36	Collisionless Reconnection in Magnetohydrodynamic and Kinetic Turbulence. <i>Astrophysical Journal</i> , 2017, 850, 182.	4.5	73

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37	Role of Magnetic Reconnection in Magnetohydrodynamic Turbulence. Physical Review Letters, 2017, 118, 245101.	7.8	77
38	Formation and structure of a current sheet in pulsed-power driven magnetic reconnection experiments. Physics of Plasmas, 2017, 24, .	1.9	14
39	The generation of magnetic fields by the Biermann battery and the interplay with the Weibel instability. Physics of Plasmas, 2016, 23, .	1.9	29
40	Comprehensive evaluation of the linear stability of Alfvén eigenmodes driven by alpha particles in an ITER baseline scenario. Nuclear Fusion, 2016, 56, 076007.	3.5	12
41	Viriato : A Fourier-Hermite spectral code for strongly magnetized fluid-kinetic plasma dynamics. Computer Physics Communications, 2016, 206, 45-63.	7.5	35
42	Sensitivity of alpha-particle-driven Alfvén eigenmodes to q-profile variation in ITER scenarios. Nuclear Fusion, 2016, 56, 112006.	3.5	5
43	Structure of a Magnetic Flux Annihilation Layer Formed by the Collision of Supersonic, Magnetized Plasma Flows. Physical Review Letters, 2016, 116, 225001.	7.8	16
44	Magnetic Reconnection Onset via Disruption of a Forming Current Sheet by the Tearing Instability. Physical Review Letters, 2016, 116, 105003.	7.8	75
45	Magnetic reconnection: from the Sweet-Parker model to stochastic plasmoid chains. Plasma Physics and Controlled Fusion, 2016, 58, 014021.	2.1	112
46	10.1063/1.4946017.1., 2016, , .		0
47	Ion and electron heating during magnetic reconnection in weakly collisional plasmas. Journal of Plasma Physics, 2015, 81, .	2.1	49
48	Kinetic microtearing modes and reconnecting modes in strongly magnetised slab plasmas. Plasma Physics and Controlled Fusion, 2015, 57, 065008.	2.1	32
49	The CASTOR-K Code, Recent Developments and Applications. Plasma Science and Technology, 2015, 17, 89-96.	1.5	12
50	Fluctuation-dissipation relations for a plasma-kinetic Langevin equation. Journal of Plasma Physics, 2015, 81, .	2.1	33
51	Systematic linear-stability assessment of Alfvén eigenmodes in the presence of fusion $\hat{\pm}$ -particles for ITER-like equilibria. Nuclear Fusion, 2015, 55, 083003.	3.5	21
52	Conditions for up-down asymmetry in the core of tokamak equilibria. Nuclear Fusion, 2014, 54, 093003.	3.5	5
53	Intrinsic momentum transport in up-down asymmetric tokamaks. Plasma Physics and Controlled Fusion, 2014, 56, 095014.	2.1	22
54	Electromagnetic effects in the stabilization of turbulence by sheared flow. Plasma Physics and Controlled Fusion, 2014, 56, 015007.	2.1	1

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55	Magnetic-Field Generation and Amplification in an Expanding Plasma. <i>Physical Review Letters</i> , 2014, 112, 175001.	7.8	40
56	Plasmoid and Kelvin-Helmholtz instabilities in Sweet-Parker current sheets. <i>Physical Review E</i> , 2013, 87, 013102.	2.1	75
57	Fast Collisionless Reconnection and Electron Heating in Strongly Magnetized Plasmas. <i>Physical Review Letters</i> , 2013, 111, 025002.	7.8	69
58	Magnetic reconnection and stochastic plasmoid chains in high-Lundquist-number plasmas. <i>Physics of Plasmas</i> , 2012, 19, .	1.9	165
59	Gyrokinetic simulations of the tearing instability. <i>Physics of Plasmas</i> , 2011, 18, .	1.9	29
60	Understanding the effect of sheared flow on microinstabilities. <i>Plasma Physics and Controlled Fusion</i> , 2010, 52, 125001.	2.1	37
61	Fast Magnetic Reconnection in the Plasmoid-Dominated Regime. <i>Physical Review Letters</i> , 2010, 105, 235002.	7.8	292
62	Effect of current corrugations on the stability of the tearing mode. <i>Physics of Plasmas</i> , 2009, 16, 032101.	1.9	10
63	Formation of Plasmoid Chains in Magnetic Reconnection. <i>Physical Review Letters</i> , 2009, 103, 105004.	7.8	196
64	Influence of higher-order harmonics on the saturation of the tearing mode. <i>Plasma Physics and Controlled Fusion</i> , 2009, 51, 035002.	2.1	4
65	Gyrokinetic simulations of spherical tokamaks. <i>Plasma Physics and Controlled Fusion</i> , 2009, 51, 124020.	2.1	84
66	Turbulent magnetic reconnection in two dimensions. <i>Monthly Notices of the Royal Astronomical Society: Letters</i> , 2009, 399, L146-L150.	3.3	99
67	An iterative semi-implicit scheme with robust damping. <i>Journal of Computational Physics</i> , 2008, 227, 4518-4542.	3.8	20
68	Instability of current sheets and formation of plasmoid chains. <i>Physics of Plasmas</i> , 2007, 14, .	1.9	560
69	X-Point Collapse and Saturation in the Nonlinear Tearing Mode Reconnection. <i>Physical Review Letters</i> , 2005, 95, 235003.	7.8	112
70	Mesoscale plasma dynamics, transport barriers and zonal flows: simulations and paradigms. <i>European Journal of Mechanics, B/Fluids</i> , 2004, 23, 475-490.	2.5	29
71	Spectral and evolutionary analysis of advection-diffusion equations and the shear flow paradigm. <i>Journal of Plasma Physics</i> , 2002, 68, 363-388.	2.1	11