

# Zoltan VÃ¡grÃ¡s

## List of Publications by Year in descending order

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111  
papers

3,853  
citations

159585

30  
h-index

138484

58  
g-index

120  
all docs

120  
docs citations

120  
times ranked

1928  
citing authors

#	ARTICLE	IF	CITATIONS
1	Spatial scale of high-speed flows in the plasma sheet observed by Cluster. Geophysical Research Letters, 2004, 31, n/a-n/a.	4.0	291
2	Current sheet structure near magnetic X-line observed by Cluster. Geophysical Research Letters, 2003, 30, .	4.0	240
3	Magnetic field investigation of the Venus plasma environment: Expected new results from Venus Express. Planetary and Space Science, 2006, 54, 1336-1343.	1.7	235
4	Local structure of the magnetotail current sheet: 2001 Cluster observations. Annales Geophysicae, 2006, 24, 247-262.	1.6	220
5	Electric current and magnetic field geometry in flapping magnetotail current sheets. Annales Geophysicae, 2005, 23, 1391-1403.	1.6	171
6	Magnetic Turbulence in the Geospace Environment. Space Science Reviews, 2010, 156, 89-134.	8.1	124
7	A Nonextensive Entropy Approach to Solar Wind Intermittency. Astrophysical Journal, 2005, 618, 547-555.	4.5	116
8	Electron scale structures and magnetic reconnection signatures in the turbulent magnetosheath. Geophysical Research Letters, 2016, 43, 5969-5978.	4.0	92
9	How typical are atypical current sheets?. Geophysical Research Letters, 2005, 32, .	4.0	86
10	Magnetic turbulence in the plasma sheet. Journal of Geophysical Research, 2004, 109, .	3.3	83
11	Characteristic size and shape of the mirror mode structures in the solar wind at 0.72 AU. Geophysical Research Letters, 2008, 35, .	4.0	83
12	Little or no solar wind enters Venus's atmosphere at solar minimum. Nature, 2007, 450, 654-656.	27.8	79
13	Reconstruction of the magnetotail current sheet structure using multi-point Cluster measurements. Planetary and Space Science, 2005, 53, 237-243.	1.7	74
14	A statistical study of electron acceleration behind the dipolarization fronts in the magnetotail. Journal of Geophysical Research: Space Physics, 2013, 118, 4804-4810.	2.4	74
15	MMS Observation of Magnetic Reconnection in the Turbulent Magnetosheath. Journal of Geophysical Research: Space Physics, 2017, 122, 11,442.	2.4	73
16	Initial Venus Express magnetic field observations of the Venus bow shock location at solar minimum. Planetary and Space Science, 2008, 56, 785-789.	1.7	71
17	Multi-scale magnetic field intermittence in the plasma sheet. Annales Geophysicae, 2003, 21, 1955-1964.	1.6	62
18	A nonextensive entropy path to probability distributions in solar wind turbulence. Nonlinear Processes in Geophysics, 2005, 12, 171-180.	1.3	60

#	ARTICLE	IF	CITATIONS
19	Turbulence Heating Observer " satellite mission proposal. Journal of Plasma Physics, 2016, 82, .	2.1	60
20	Study of near-Earth reconnection events with Cluster and Double Star. Journal of Geophysical Research, 2008, 113, .	3.3	59
21	Magnetosheath Plasma Turbulence and Its Spatiotemporal Evolution as Observed by the Cluster Spacecraft. Physical Review Letters, 2008, 100, 205003.	7.8	55
22	First identification of mirror mode waves in Venus' magnetosheath?. Geophysical Research Letters, 2008, 35, .	4.0	50
23	Bursty Bulk Flow Driven Turbulence in the Earth's Plasma Sheet. Space Science Reviews, 2006, 122, 301-311.	8.1	47
24	Mirror-mode-like structures in Venus' induced magnetosphere. Journal of Geophysical Research, 2008, 113, .	3.3	44
25	Wavelet-based filtering of intermittent events from geomagnetic time-series. Planetary and Space Science, 2001, 49, 1219-1231.	1.7	37
26	A statistical study of compressional waves in the tail current sheet. Journal of Geophysical Research, 2003, 108, .	3.3	37
27	Kelvin-Helmholtz instability of twisted magnetic flux tubes in the solar wind. Astronomy and Astrophysics, 2014, 561, A62.	5.1	36
28	Wavelet analysis of magnetic turbulence in the Earth's plasma sheet. Physics of Plasmas, 2004, 11, 1333-1338.	1.9	34
29	Intermittent turbulence, noisy fluctuations, and wavy structures in the Venusian magnetosheath and wake. Journal of Geophysical Research, 2008, 113, .	3.3	34
30	MMS Observation of Asymmetric Reconnection Supported by " Electron Pressure Divergence. Journal of Geophysical Research: Space Physics, 2018, 123, 1806-1821.	2.4	34
31	Proton cyclotron waves in the solar wind at Venus. Journal of Geophysical Research, 2008, 113, .	3.3	33
32	Mirror mode structures near Venus and Comet P/Halley. Annales Geophysicae, 2014, 32, 651-657.	1.6	33
33	Behavior of current sheets at directional magnetic discontinuities in the solar wind at 0.72 AU. Geophysical Research Letters, 2008, 35, .	4.0	31
34	Spectral scaling in the turbulent Earth's plasma sheet revisited. Nonlinear Processes in Geophysics, 2007, 14, 535-541.	1.3	30
35	Scaling and singularity characteristics of solar wind and magnetospheric fluctuations. Nonlinear Processes in Geophysics, 2002, 9, 149-162.	1.3	28
36	In situ observations of multistage electron acceleration driven by magnetic reconnection. Journal of Geophysical Research: Space Physics, 2015, 120, 6320-6331.	2.4	28

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37	On multifractality of high-latitude geomagnetic fluctuations. <i>Annales Geophysicae</i> , 2000, 18, 1273-1282.	1.6	27
38	Compressional waves in the Earth's neutral sheet. <i>Annales Geophysicae</i> , 2004, 22, 303-315.	1.6	27
39	Proton cyclotron wave generation mechanisms upstream of Venus. <i>Journal of Geophysical Research</i> , 2011, 116, n/a-n/a.	3.3	26
40	Properties of a bifurcated current sheet observed on 29 August 2001. <i>Annales Geophysicae</i> , 2004, 22, 2535-2540.	1.6	24
41	Magnetic reconnection associated fluctuations in the deep magnetotail: ARTEMIS results. <i>Nonlinear Processes in Geophysics</i> , 2011, 18, 861-869.	1.3	24
42	Coordinated Study on Solar Wind Turbulence During the Venus-Express, ACE and Ulysses Alignment of August 2007. <i>Earth, Moon and Planets</i> , 2009, 104, 101-104.	0.6	23
43	Magnetosheath High-Speed Jets: Internal Structure and Interaction With Ambient Plasma. <i>Journal of Geophysical Research: Space Physics</i> , 2017, 122, 10,157.	2.4	23
44	Scale Sizes of Magnetosheath Jets. <i>Journal of Geophysical Research: Space Physics</i> , 2020, 125, e2020JA027962.	2.4	23
45	Current Sheet Statistics in the Magnetosheath. <i>Frontiers in Astronomy and Space Sciences</i> , 2020, 7, .	2.8	23
46	Dissipation scales in the Earth's plasma sheet estimated from Cluster measurements. <i>Nonlinear Processes in Geophysics</i> , 2005, 12, 725-732.	1.3	22
47	TURBULENCE-GENERATED PROTON-SCALE STRUCTURES IN THE TERRESTRIAL MAGNETOSHEATH. <i>Astrophysical Journal Letters</i> , 2016, 819, L15.	8.3	22
48	Introducing log $\kappa$ distributions for solar wind analysis. <i>Journal of Geophysical Research</i> , 2009, 114, .	3.3	21
49	Hydrogen in the extended Venus exosphere. <i>Geophysical Research Letters</i> , 2009, 36, .	4.0	21
50	Magnetic fluctuations and turbulence in the Venus magnetosheath and wake. <i>Geophysical Research Letters</i> , 2008, 35, .	4.0	20
51	Multi-scale analysis of turbulence in the Earth's current sheet. <i>Annales Geophysicae</i> , 2004, 22, 2525-2533.	1.6	19
52	Substorm activity in Venus's magnetotail. <i>Annales Geophysicae</i> , 2009, 27, 2321-2330.	1.6	18
53	TWISTED MAGNETIC FLUX TUBES IN THE SOLAR WIND. <i>Astrophysical Journal Letters</i> , 2014, 783, L19.	8.3	18
54	Multi-point observation of the high-speed flows in the plasma sheet. <i>Advances in Space Research</i> , 2005, 36, 1444-1447.	2.6	17

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55	Simultaneous Remote Observations of Intense Reconnection Effects by DMSP and MMS Spacecraft During a Storm Time Substorm. <i>Journal of Geophysical Research: Space Physics</i> , 2017, 122, 10891-10909.	2.4	17
56	Entropy of plasmas described with regularized $\langle mml:math xmlns:mml="http://www.w3.org/1998/Math/MathML">\langle mml:mi>\hat{p}\langle /mml:mi>\langle /mml:math>$ distributions. <i>Physical Review E</i> , 2018, 98, .	2.1	17
57	Neural network prediction of geomagnetic activity: a method using local Hölder exponents. <i>Nonlinear Processes in Geophysics</i> , 2002, 9, 425-433.	1.3	16
58	Neural network-based nonlinear prediction of magnetic storms. <i>Journal of Atmospheric and Solar-Terrestrial Physics</i> , 2002, 64, 651-656.	1.6	16
59	A statistical survey of the magnetotail current sheet. <i>Advances in Space Research</i> , 2006, 38, 1834-1837.	2.6	16
60	Statistical study of low-frequency magnetic field fluctuations near Venus under the different interplanetary magnetic field orientations. <i>Journal of Geophysical Research</i> , 2010, 115, .	3.3	16
61	Spatial structure of plasma flow associated turbulence in the Earth's plasma sheet. <i>Annales Geophysicae</i> , 2007, 25, 13-17.	1.6	16
62	Scaling laws from geomagnetic time series. <i>Geophysical Research Letters</i> , 1998, 25, 2621-2624.	4.0	15
63	Wave telescope technique for MMS magnetometer. <i>Geophysical Research Letters</i> , 2016, 43, 4774-4780.	4.0	15
64	Transport Ratios of the Kinetic Alfvén Mode in Space Plasmas. <i>Frontiers in Physics</i> , 2020, 8, .	2.1	15
65	Cross-scale coupling-induced intermittency near interplanetary shocks. <i>Journal of Geophysical Research</i> , 2006, 111, .	3.3	14
66	Magnetotail dipolarization and associated current systems observed by Cluster and Double Star. <i>Journal of Geophysical Research</i> , 2008, 113, .	3.3	14
67	RECONNECTION OUTFLOW GENERATED TURBULENCE IN THE SOLAR WIND. <i>Astrophysical Journal Letters</i> , 2014, 797, L10.	8.3	14
68	Neutral sheet normal direction determination. <i>Advances in Space Research</i> , 2005, 36, 1940-1945.	2.6	13
69	Windsock memory COnditioned RAM (CO-CRAM) pressure effect: Forced reconnection in the Earth's magnetotail. <i>Journal of Geophysical Research: Space Physics</i> , 2014, 119, 6273-6293.	2.4	13
70	Anisotropy of the Spectral Index in Ion Scale Compressible Turbulence: MMS Observations in the Magnetosheath. <i>Frontiers in Physics</i> , 2019, 7, .	2.1	13
71	MMS Observations of Whistler and Lower Hybrid Drift Waves Associated with Magnetic Reconnection in the Turbulent Magnetosheath. <i>Journal of Geophysical Research: Space Physics</i> , 2019, 124, 8551-8563.	2.4	13
72	Sub-ion Scale Compressive Turbulence in the Solar Wind: MMS Spacecraft Potential Observations. <i>Astrophysical Journal, Supplement Series</i> , 2020, 250, 35.	7.7	13

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73	Alfvén waves in the near-PSBL lobe: Cluster observations. <i>Annales Geophysicae</i> , 2006, 24, 1001-1013.	1.6	13
74	The proton temperature anisotropy associated with bursty bulk flows in the magnetotail. <i>Journal of Geophysical Research: Space Physics</i> , 2013, 118, 4875-4883.	2.4	12
75	Current sheet flapping motions in the tailward flow of magnetic reconnection. <i>Journal of Geophysical Research: Space Physics</i> , 2016, 121, 7817-7827.	2.4	11
76	Magnetic Fluctuations and Turbulence in the Venusian Magnetosheath Downstream of Different Types of Bow Shock. <i>Journal of Geophysical Research: Space Physics</i> , 2018, 123, 8219-8226.	2.4	11
77	Energy Conversion at Kinetic Scales in the Turbulent Magnetosheath. <i>Frontiers in Astronomy and Space Sciences</i> , 2019, 6, .	2.8	11
78	Higher-Order Statistics in Compressive Solar Wind Plasma Turbulence: High-Resolution Density Observations From the Magnetospheric MultiScale Mission. <i>Frontiers in Physics</i> , 2020, 8, .	2.1	11
79	The influence of solar wind turbulence on geomagnetic activity. <i>Nonlinear Processes in Geophysics</i> , 2008, 15, 53-59.	1.3	10
80	Probability density functions for the variable solar wind near the solar cycle minimum. <i>Journal of Geophysical Research: Space Physics</i> , 2015, 120, 6152-6166.	2.4	10
81	Change of solar wind quasi-invariant in solar cycle 23 Analysis of PDFs. <i>Journal of Atmospheric and Solar-Terrestrial Physics</i> , 2011, 73, 290-293.	1.6	9
82	Synergetic Approach to Substorm Phenomenon. <i>Geophysical Monograph Series</i> , 0, , 461-467.	0.1	9
83	Statistical investigation on the power-law behavior of magnetic fluctuations in the Venusian magnetosheath. <i>Earth, Planets and Space</i> , 2015, 67, .	2.5	9
84	Possible coexistence of kinetic Alfvén and ion Bernstein modes in sub-ion scale compressive turbulence in the solar wind. <i>Physical Review Research</i> , 2020, 2, .	3.6	9
85	Study of reconnection-associated multiscale fluctuations with Cluster and Double Star. <i>Journal of Geophysical Research</i> , 2008, 113, .	3.3	8
86	Evolution of kinklike fluctuations associated with ion pickup within reconnection outflows in the Earth's magnetotail. <i>Physics of Plasmas</i> , 2009, 16, 120701.	1.9	8
87	Creating kappa-like distributions from a Galton board. <i>Physica A: Statistical Mechanics and Its Applications</i> , 2011, 390, 1248-1257.	2.6	8
88	Turbulence Near the Venusian Bow Shock: Venus Express Observations. <i>Journal of Geophysical Research: Space Physics</i> , 2020, 125, e2019JA027190.	2.4	8
89	A Possible Link between Turbulence and Plasma Heating. <i>Astrophysical Journal</i> , 2021, 921, 65.	4.5	8
90	Estimation of the Electron Density From Spacecraft Potential During High-Frequency Electric Field Fluctuations. <i>Journal of Geophysical Research: Space Physics</i> , 2020, 125, e2020JA027854.	2.4	6

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91	Magnetic Reconnection Within the Boundary Layer of a Magnetic Cloud in the Solar Wind. Journal of Geophysical Research: Space Physics, 2021, 126, e2021JA029415.	2.4	6
92	Nonlinear time series analysis of geomagnetic pulsations. Nonlinear Processes in Geophysics, 1994, 1, 145-155.	1.3	5
93	The magnetosphere as a nonlinear system. Studia Geophysica Et Geodaetica, 1994, 38, 168-186.	0.5	5
94	Corrigendum to "Substorm activity in Venus's magnetotail" published in Ann. Geophys., 27, 2321-2330, doi:10.5194/angeo-27-2321-2009, 2009. Annales Geophysicae, 2010, 28, 1877-1878.	1.6	5
95	Evaluation of electromotive force in interplanetary space. Annales Geophysicae, 2018, 36, 101-106.	1.6	5
96	The effect of upstream turbulence and its anisotropy on the efficiency of solar wind " magnetosphere coupling. Nonlinear Processes in Geophysics, 2008, 15, 523-529.	1.3	4
97	Structure of the near-Earth plasma sheet during tailward flows. Annales Geophysicae, 2008, 26, 709-724.	1.6	4
98	Is current disruption associated with an inverse cascade?. Nonlinear Processes in Geophysics, 2010, 17, 287-292.	1.3	4
99	Two interacting X lines in magnetotail: Evolution of collision between the counterstreaming jets. Geophysical Research Letters, 2016, 43, 7795-7803.	4.0	4
100	The kinetic Alfvén-like nature of turbulent fluctuations in the Earth's magnetosheath: MMS measurement of the electron Alfvén ratio. Physics of Plasmas, 2022, 29, 012308.	1.9	4
101	Plasma sheet oscillations and their relation to substorm development: Cluster and double star TC1 case study. Advances in Space Research, 2008, 41, 1585-1592.	2.6	3
102	Lifetime estimate for plasma turbulence. Nonlinear Processes in Geophysics, 2017, 24, 673-679.	1.3	3
103	Wave Activity in a Dynamically Evolving Reconnection Separatrix. Journal of Geophysical Research: Space Physics, 2021, 126, e2020JA028520.	2.4	2
104	Examining the role of turbulence in the solar wind - magnetosphere interaction processes. Proceedings of the International Astronomical Union, 2004, 2004, 537-540.	0.0	1
105	Solar-Terrestrial Relations: Magnetic Turbulence in the Earth's Magnetosphere and Geomagnetic Activity. Earth, Moon and Planets, 2009, 104, 127-129.	0.6	1
106	SCALE-DEPENDENT ANISOTROPY OF MAGNETIC FLUCTUATIONS IN THE EARTH'S PLASMA SHEET. , 2005, , 29-38.		1
107	NONEXTENSIVE ENTROPY APPROACH TO SPACE PLASMA FLUCTUATIONS AND TURBULENCE. , 0, , 43-64.		1
108	Correction to "Intermittent turbulence, noisy fluctuations, and wavy structures in the Venusian magnetosheath and wake". Journal of Geophysical Research, 2009, 114, .	3.3	0

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109	Electron acceleration behind the dipolarization fronts in the magnetotail. , 2014, , .		0
110	On the scaling features of magnetic field fluctuations at non-MHD scales in turbulent space plasmas. Journal of Physics: Conference Series, 2016, 767, 012003.	0.4	0
111	MAGNETIC TURBULENCE IN THE SOLAR WIND AND THE EARTH'S PLASMA SHEET. , 2006, , .		0