

Istvan Ballai

List of Publications by Year in descending order

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papers

783
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623734

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68
all docs

68
docs citations

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times ranked

456
citing authors

#	ARTICLE	IF	CITATIONS
1	Heating of the solar and stellar coronae: a review. <i>Astronomische Nachrichten</i> , 2007, 328, 726-733.	1.2	77
2	On the Nature of Coronal EIT Waves. <i>Astrophysical Journal</i> , 2005, 633, L145-L148.	4.5	70
3	Critical Science Plan for the Daniel K. Inouye Solar Telescope (DKIST). <i>Solar Physics</i> , 2021, 296, 1.	2.5	65
4	Linear and non-linear MHD wave propagation in steady-state magnetic cylinders. <i>Solar Physics</i> , 2003, 217, 199-223.	2.5	61
5	Global Coronal Seismology. <i>Solar Physics</i> , 2007, 246, 177-185.	2.5	35
6	Nonlinear theory of slow dissipative layers in anisotropic plasmas. <i>Physics of Plasmas</i> , 1998, 5, 252-260.	1.9	34
7	The effect of longitudinal flow on resonantly damped kink oscillations. <i>Astronomy and Astrophysics</i> , 2010, 515, A46.	5.1	29
8	Solitary waves in a Hall solar wind plasma. <i>Astronomy and Astrophysics</i> , 2003, 404, 701-707.	5.1	23
9	On dissipative effects in solar prominences. <i>Astronomy and Astrophysics</i> , 2003, 410, L17-L19.	5.1	22
10	Forced oscillations of coronal loops driven by EIT waves. <i>Astronomy and Astrophysics</i> , 2008, 488, 1125-1132.	5.1	20
11	TRACE observations of driven loop oscillations. <i>Astronomy and Astrophysics</i> , 2011, 534, A13.	5.1	18
12	Title is missing!. <i>Solar Physics</i> , 1999, 186, 67-97.	2.5	17
13	Dissipative instability in partially ionised prominence plasmas. <i>Astronomy and Astrophysics</i> , 2015, 577, A82.	5.1	16
14	Interaction of sound waves with slow dissipative layers in anisotropic plasmas in the approximation of weak nonlinearity. <i>Physics of Plasmas</i> , 1998, 5, 2264-2273.	1.9	14
15	Resonant Absorption of Nonlinear Slow MHD Waves in Isotropic Steady Plasmas - I. Theory. <i>Solar Physics</i> , 1998, 180, 65-79.	2.5	13
16	Linear and nonlinear wave propagation in rarefied plasmas. <i>Physics of Plasmas</i> , 2002, 9, 2593-2603.	1.9	13
17	The effect of the environment on the P1/P2 period ratio for kink oscillations of coronal loops. <i>Astronomy and Astrophysics</i> , 2012, 537, A41.	5.1	12
18	Slow magnetohydrodynamic waves in stratified and viscous plasmas. <i>Physics of Plasmas</i> , 2006, 13, 042108.	1.9	11

#	ARTICLE	IF	CITATIONS
19	Dispersive shock waves in the solar wind. <i>Astronomische Nachrichten</i> , 2007, 328, 734-737.	1.2	11
20	Nonlinear theory of resonant slow waves in anisotropic and dispersive plasmas. <i>Physics of Plasmas</i> , 2008, 15, 082310.	1.9	10
21	Three-dimensional numerical simulation of magnetohydrodynamic-gravity waves and vortices in the solar atmosphere. <i>Monthly Notices of the Royal Astronomical Society</i> , 2013, 436, 1268-1277.	4.4	10
22	Rayleigh-Taylor instabilities with sheared magnetic fields in partially ionised plasmas. <i>Astronomy and Astrophysics</i> , 2018, 609, A23.	5.1	10
23	Linear Waves in Partially Ionized Plasmas in Ionization Non-equilibrium. <i>Frontiers in Astronomy and Space Sciences</i> , 2019, 6, .	2.8	10
24	Magnetoacoustic surface gravity waves at a spherical interface. <i>Astronomy and Astrophysics</i> , 2011, 527, A12.	5.1	9
25	Nonlinear resonant absorption of fast magnetoacoustic waves due to coupling into slow continua in the solar atmosphere. <i>Astronomy and Astrophysics</i> , 2001, 368, 662-675.	5.1	9
26	Nonlinear theory of resonant slow MHD waves in twisted magnetic flux tubes. <i>Journal of Plasma Physics</i> , 2002, 67, 79-97.	2.1	8
27	Extended Leibovich-Roberts equation in rarefied plasmas. <i>Physics of Plasmas</i> , 2002, 9, 4280-4284.	1.9	7
28	Ducted compressional waves in the magnetosphere in the double-polytropic approximation. <i>Annales Geophysicae</i> , 2002, 20, 1553-1558.	1.6	7
29	The effect of anisotropy on the propagation of linear compressional waves in magnetic flux tubes: Applications to astrophysical plasmas. <i>Astronomy and Astrophysics</i> , 2004, 415, 691-703.	5.1	7
30	The problem of phase mixed shear Alfvén waves in the solar corona revisited. <i>Astronomische Nachrichten</i> , 2008, 329, 780-785.	1.2	7
31	On the validity of nonlinear Alfvén resonance in space plasmas. <i>Astronomy and Astrophysics</i> , 2009, 494, 317-327.	5.1	7
32	Statistical study of spatio-temporal distribution of precursor solar flares associated with major flares. <i>Monthly Notices of the Royal Astronomical Society</i> , 2016, 459, 3532-3539.	4.4	7
33	The Importance of Horizontal Poynting Flux in the Solar Photosphere. <i>Astrophysical Journal</i> , 2022, 927, 146.	4.5	7
34	New Approach for Analyzing Dynamical Processes on the Surface of Photospheric Vortex Tubes. <i>Astrophysical Journal</i> , 2022, 928, 3.	4.5	7
35	Small-scale solar jet formation and their associated waves and instabilities. <i>Advances in Space Research</i> , 2023, 71, 1866-1892.	2.6	7
36	Nonlinear waves in solar plasmas - a review. <i>Journal of Physics: Conference Series</i> , 2006, 44, 20-29.	0.4	6

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37	Mean shear flows generated by nonlinear resonant Alfvén waves. <i>Physics of Plasmas</i> , 2009, 16, .	1.9	6
38	Nonlinear Effects in Resonant Layers in Solar and Space Plasmas. <i>Space Science Reviews</i> , 2011, 158, 421-450.	8.1	6
39	Dissipative instabilities in a partially ionised prominence plasma slab. <i>Astronomy and Astrophysics</i> , 2018, 610, A56.	5.1	6
40	The P_1/P_2 period ratio for kink oscillations of an asymmetrical coronal loop. <i>Astronomische Nachrichten</i> , 2013, 334, 948-951.	1.2	5
41	Propagation of Leaky MHD Waves at Discontinuities with Tilted Magnetic Field. <i>Solar Physics</i> , 2018, 293, 139.	2.5	5
42	Dispersive shock waves in partially ionised plasmas. <i>Advances in Space Research</i> , 2019, 63, 1472-1482.	2.6	5
43	Transverse kink oscillations of expanding coronal loops. <i>Astronomy and Astrophysics</i> , 2012, 545, A118.	5.1	5
44	Linear and nonlinear resonant interaction of sound waves in dissipative layers. <i>Journal of Plasma Physics</i> , 2000, 64, 235-247.	2.1	4
45	Nonlinear theory of non-axisymmetric resonant slow waves in straight magnetic flux tubes. <i>Journal of Plasma Physics</i> , 2000, 64, 579-599.	2.1	4
46	Sausage Mode Propagation in a Thick Magnetic Flux Tube. <i>Solar Physics</i> , 2014, 289, 1203-1214.	2.5	4
47	Dissipative instability in a partially ionised prominence plasma slab. <i>Astronomy and Astrophysics</i> , 2017, 603, A78.	5.1	4
48	Magnetohydrodynamic modes in a periodic magnetic steady state medium. <i>Astronomy and Astrophysics</i> , 2006, 449, 1193-1202.	5.1	4
49	Dynamics of nonlinear resonant slow MHD waves in twisted flux tubes. <i>Nonlinear Processes in Geophysics</i> , 2002, 9, 79-86.	1.3	3
50	The sound of the Sun. <i>Astronomy and Geophysics</i> , 2005, 46, 4.27-4.30.	0.2	3
51	MHD waves at a spherical interface modelling EIT waves. <i>Astronomische Nachrichten</i> , 2007, 328, 769-772.	1.2	3
52	The dynamical solar atmosphere. <i>Journal of Physics: Conference Series</i> , 2010, 218, 012002.	0.4	3
53	Statistical relationship between the succeeding solar flares detected by the RHESSI satellite. <i>Monthly Notices of the Royal Astronomical Society</i> , 2014, 441, 1157-1165.	4.4	3
54	Propagation of leaky surface waves on contact magnetohydrodynamic discontinuities in incompressible plasmas. <i>Physics of Plasmas</i> , 2018, 25, .	1.9	3

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55	Generation of Low-Frequency Kinetic Waves at the Footpoints of Pre-Flare Coronal Loops. Solar Physics, 2020, 295, 1.	2.5	3
56	Magnetohydrodynamic Wave Mode Identification in Circular and Elliptical Sunspot Umbrae: Evidence for High-order Modes. Astrophysical Journal, 2022, 927, 201.	4.5	3
57	Nonlinear resonant absorption of fast magnetoacoustic waves in strongly anisotropic and dispersive plasmas. Physics of Plasmas, 2009, 16, 042305.	1.9	2
58	Resonant Absorption of Fast Magnetoacoustic Waves due to Coupling into the Slow and Alfvén Continua in the Solar Atmosphere. Solar Physics, 2010, 264, 311-327.	2.5	1
59	Diagnostics of plasma ionisation using torsional Alfvén waves. Astronomy and Astrophysics, 2020, 635, L2.	5.1	1
60	Generation of Localised Vertical Streams in Unstable Stratified Atmosphere. Fluids, 2021, 6, 454.	1.7	1
61	Linear and nonlinear waves in dilute plasmas. AIP Conference Proceedings, 2000, , .	0.4	0
62	Absorption of fast magnetosonic waves in the solar atmosphere in the limit of weak nonlinearity. AIP Conference Proceedings, 2000, , .	0.4	0
63	The Sun: for academics, students and idiots. Astronomy and Geophysics, 2004, 45, 4.44-4.45.	0.2	0
64	Diagnostics of local and global coronal magnetic field using global coronal waves. Proceedings of the International Astronomical Union, 2006, 2, 132.	0.0	0
65	Sampling the Coronal Magnetic Field. AIP Conference Proceedings, 2007, , .	0.4	0
66	Thermally Damped Waves in the Solar Corona. AIP Conference Proceedings, 2007, , .	0.4	0
67	MHD waves in stratified and dissipative plasmas. AIP Conference Proceedings, 2007, , .	0.4	0
68	Editors' note: Astron. Nachr. 8/2007. Astronomische Nachrichten, 2007, 328, 725-725.	1.2	0