Michael Ruderman

List of Publications by Year
in descending order

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124 papers	3,671 citations	126907 33 h-index	149698 56 g-index
126 all docs	126 docs citations	126 times ranked	935 citing authors

#	Article	IF	Citations
1	Effect of Transitional Layer on Frequency of Kink Oscillations. Solar Physics, 2022, 297, .	2.5	3
2	Significance of Cooling Effect on Comprehension of Kink Oscillations of Coronal Loops. Frontiers in Astronomy and Space Sciences, 2021, 7, .	2.8	4
3	Nonlinear Damping of Standing Kink Waves Computed With ElsÃsser Variables. Astrophysical Journal, 2021, 910, 58.	4.5	22
4	Propagation of Torsional AlfvÃ©n Pulses in Zero-beta Flux Tubes. Astrophysical Journal, 2021, 911, 39.	4.5	8
5	Resonant Instability of Kink Oscillations in Magnetic Flux Tubes with Siphon Flow. Solar Physics, 2021, 296, 1.	2.5	2
6	Decayless Kink Oscillations Excited by Random Driving: Motion in Transitional Layer. Solar Physics, 2021, 296, 1.	2.5	8
7	Reflection and Evolution of Torsional AlfvÃ©n Pulses in Zero-beta Flux Tubes. Astrophysical Journal, 2021, 922, 118.	4.5	4
8	Resonant damping and instability of propagating kink waves in flowing and twisted magnetic flux tubes. Monthly Notices of the Royal Astronomical Society, 2020, 496, 67-79.	4.4	10
9	Quasi-parallel propagation of solitary waves in magnetised non-relativistic electronâ€“positronÂplasmas. Journal of Plasma Physics, 2020, 86, .	2.1	3
10	Formation of Chromospheric Spicules in Magnetic Bright Points: An Analytical Approach Using Cartesian Slab Geometry. Astrophysical Journal, 2020, 905, 168.	4.5	6
11	Effect of siphon flow on resonant damping of kink oscillations in magnetic flux tubes. Astronomy and Astrophysics, 2019, 631, A31.	5.1	10
12	Resonant Damping of Propagating Kink Waves in Non-stationary, Longitudinally Stratified, and Expanding Solar Waveguides. Frontiers in Astronomy and Space Sciences, 2019, 6, .	2.8	6
13	An Analytical Model of the Kelvinâ€“Helmholtz Instability of Transverse Coronal Loop Oscillations. Astrophysical Journal, 2019, 870, 108.	4.5	27
14	Negative energy standing wave instability in the presence of flow. Journal of Plasma Physics, 2018, 84, .	2.1	7
15	Phase mixing of AlfvÃ©n waves in axisymmetric non-reflective magnetic plasma configurations. Monthly Notices of the Royal Astronomical Society, 2018, 474, 2289-2301.	4.4	6
16	Resonant damping of kink oscillations of thin cooling and expanding coronal magnetic loops. Astronomy and Astrophysics, 2018, 619, A173.	5.1	10
17	Propagation of leaky surface waves on contact magnetohydrodynamic discontinuities in incompressible plasmas. Physics of Plasmas, 2018, 25, .	1.9	3
18	Phase mixing of AlfvÃ©n waves in two-dimensional magnetic plasma configurations with exponentially decreasing density. Astronomy and Astrophysics, 2018, 620, A44.	5.1	6

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19	Rayleigh-Taylor instabilities with sheared magnetic fields in partially ionised plasmas. Astronomy and Astrophysics, 2018, 609, A23.	5.1	10
20	Resonant damping of kink oscillations of thin expanding magnetic tubes. Astronomy and Astrophysics, 2018, 615, A156.	5.1	9
21	Rayleighâ€“Taylor instability of a magnetic tangential discontinuity in the presence of oscillating gravitational acceleration. Astronomy and Astrophysics, 2018, 615, A130.	5.1	1
22	Phase mixing of AlfvÃ©n waves propagating in non-reflective magnetic plasma configurations. Astronomy and Astrophysics, 2017, 600, A122.	5.1	8
23	Kink oscillations of cooling coronal loops with variable cross-section. Astronomy and Astrophysics, 2017, 602, A50.	5.1	15
24	Compressibility Effect on the Rayleighâ€“Taylor Instability with Sheared Magnetic Fields. Solar Physics, 2017, 292, 1.	2.5	12
25	Nonlinear Generation of Fluting Perturbations by Kink Mode. Solar Physics, 2017, 292, 111.	2.5	10
26	On the Evolution of Pre-Flare Patterns of a 3-Dimensional Model of AR 11429. Proceedings of the International Astronomical Union, 2017, 13, 294-297.	0.0	1
27	Damping of prominence longitudinal oscillations due to mass accretion. Astronomy and Astrophysics, 2016, 591, A131.	5.1	31
28	Nonlinear radial oscillations of coronal loops. Geomagnetism and Aeronomy, 2016, 56, 1040-1044.	0.8	3
29	On the Ratio of Periods of the Fundamental Harmonic and First Overtone of Magnetic Tube Kink Oscillations. Solar Physics, 2016, 291, 1143-1157.	2.5	26
30	Nonlinear fast sausage waves in homogeneous magnetic flux tubes. Journal of Plasma Physics, 2015, 81, .	2.1	21
31	Standing kink oscillations of thin twisted magnetic tubes with continuous equilibrium magnetic field. Astronomy and Astrophysics, 2015, 580, A57.	5.1	20
32	Propagating kink waves in thin twisted magnetic tubes with continuous equilibrium magnetic field. Astronomy and Astrophysics, 2015, 575, A130.	5.1	36
33	Possible Cross-Section for a Coronal Loop of Given Shape?. Solar Physics, 2015, 290, 423-435.	2.5	4
34	Non-reflective Propagation of Kink Pulses in Magnetic Waveguides in the Solar Atmosphere. Solar Physics, 2015, 290, 1323-1335.	2.5	9
35	PROPAGATION AND DISPERSION OF SAUSAGE WAVE TRAINS IN MAGNETIC FLUX TUBES. Astrophysical Journal, 2015, 806, 56.	4.5	38
36	Rayleigh-Taylor instability of a magnetic tangential discontinuity in the presence of flow. Astronomy and Astrophysics, 2015, 580, A37.	5.1	10

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37	The structure of fast sausage waves in current-carrying coronal loops. Annales Geophysicae, 2014, 32, 1189-1193.	1.6	18
38	PROPAGATION AND DISPERSION OF TRANSVERSE WAVE TRAINS IN MAGNETIC FLUX TUBES. Astrophysical Journal, 2014, 789, 48.	4.5	33
39	Kink Oscillations of Thin Magnetic Tubes with Discontinuous Density. Solar Physics, 2014, 289, 2473-2485.	2.5	0
40	Nonlinear Kink Oscillations of Coronal Magnetic Loops. Solar Physics, 2014, 289, 1999-2020.	2.5	18
41	ELECTRON THERMAL CONDUCTION AS A POSSIBLE PHYSICAL MECHANISM TO MAKE THE INNER HELIOSHEATH THINNER. Astrophysical Journal Letters, 2014, 795, L7.	8.3	27
42	Non-reflective Propagation of Kink Waves in Coronal Magnetic Loops. Solar Physics, 2013, 286, 417-426.	2.5	9
43	On the effect of transport coefficient anisotropy on the plasma flow in heliospheric interface. Monthly Notices of the Royal Astronomical Society, 2013, 434, 3202-3207.	4.4	11
44	Effect of stratification on the frequency of bounded Rossby modes over a non-flat bottom. Geophysical and Astrophysical Fluid Dynamics, 2013, 107, 541-563.	1.2	0
45	Damping of coronal loop kink oscillations due to mode conversion. Astronomy and Astrophysics, 2013, 555, A27.	5.1	47
46	Fast Sausage Waves in Current-Carrying Coronal Loops. Solar Physics, 2012, 280, 153-163.	2.5	33
47	Observations of ubiquitous compressive waves in the Sunâ€™s chromosphere. Nature Communications, 2012, 3, 1315.	12.8	148
48	Damped kink oscillations of flowing prominence threads. Astronomy and Astrophysics, 2012, 546, A82.	5.1	15
49	Coronal Seismology Using Transverse Oscillations of Non-planar Coronal Loops. Solar Physics, 2012, 278, 177-185.	2.5	5
50	Torsional AlfvÃ©n waves: magneto-seismology in static and dynamic coronal plasmas. Astronomy and Astrophysics, 2011, 534, A27.	5.1	16
51	Resonant damping of kink oscillations of cooling coronal magnetic loops. Astronomy and Astrophysics, 2011, 534, A78.	5.1	32
52	Resonantly damped oscillations of two coronal loops. Astronomy and Astrophysics, 2011, 525, A4.	5.1	11
53	Transverse Oscillations of Coronal Loops with Slowly Changing Density. Solar Physics, 2011, 271, 41-54.	2.5	39
54	Resonant MHD Waves in the Solar Atmosphere. Space Science Reviews, 2011, 158, 289-338.	8.1	193

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55	Nonlinear Effects in Resonant Layers in Solar and Space Plasmas. Space Science Reviews, 2011, 158, 421-450.	8.1	6
56	MHD Waves and Instabilities in Space Plasma Flows. Space Science Reviews, 2011, 158, 505-523.	8.1	19
57	Kink and fluting modes of stratified coronal magnetic loops withÂelliptical cross-sections. Astronomy and Astrophysics, 2011, 527, A53.	5.1	20
58	Transverse oscillations of non-planar coronal loops. Astronomy and Astrophysics, 2011, 529, A33.	5.1	8
59	Stability of MHD shear flows: Application to space physics. Journal of Physics: Conference Series, 2010, 216, 012016.	0.4	8
60	The Effect of Flows on Transverse Oscillations ofÂCoronal Loops. Solar Physics, 2010, 267, 377-391.	2.5	37
61	The structure of the hydrodynamic plasma flow near the heliopause stagnation point. Monthly Notices of the Royal Astronomical Society, 2010, 401, 607-612.	4.4	8
62	The effect of density stratification on the transverse oscillations of two parallel coronal loops. Astronomy and Astrophysics, 2010, 515, A33.	5.1	14
63	Nonlinear propagating kink waves in thin magnetic tubes. Physics of Plasmas, 2010, 17, .	1.9	45
64	10.1063/1.3464464.1. , 2010, , .		0
65	On the vertical and horizontal transverse oscillations of curved coronal loops. Astronomy and Astrophysics, 2009, 506, 885-893.	5.1	15
66	Theory of Transverse Oscillations of Solar Coronal Loops. , 2009, , .		0
67	Kinetic-Gasdynamic Modeling of the Heliospheric Interface. Space Science Reviews, 2009, 146, 329-351.	8.1	109
68	Transverse Oscillations of Coronal Loops. Space Science Reviews, 2009, 149, 199-228.	8.1	160
69	On the Convection in a Porous Medium with Inclined Temperature Gradient and Vertical Throughflow. Part I. Normal Modes. Transport in Porous Media, 2009, 80, 137-151.	2.6	30
70	On the Convection in a Porous Medium with Inclined Temperature Gradient and Vertical Throughflow. Part II. Absolute and Convective Instabilities, and Spatially Amplifying Waves. Transport in Porous Media, 2009, 80, 153-172.	2.6	26
71	Dynamics of modulationally unstable ion-acoustic wavepackets in plasmas with negative ions. Journal of Plasma Physics, 2008, 74, 639-656.	2.1	90
72	Parametric instabilities of circularly polarized small-amplitude AlfvÃ©n waves in Hall plasmas. Journal of Plasma Physics, 2008, 74, 119-138.	2.1	6

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73	Transverse Oscillations of Longitudinally Stratified Coronal Loops with Variable Cross Section. Astrophysical Journal, 2008, 686, 694-700.	4.5	117
74	Transverse oscillations of two parallel coronal loops. Astronomy and Astrophysics, 2008, 485, 849-857.	5.1	41
75	Non-axisymmetric oscillations of thin twisted magnetic tubes. Proceedings of the International Astronomical Union, 2007, 3, 344-350.	0.0	0
76	Resonantly damped oscillations of longitudinally stratified coronal loops. Astronomy and Astrophysics, 2007, 463, 759-759.	5.1	8
77	Nonaxisymmetric Oscillations ofÂThinÂTwistedÂMagneticÂTubes. Solar Physics, 2007, 246, 119-131.	2.5	71
78	Absolute and convective instabilities of parallel propagating circularly polarized AlfvÃ©n waves: numerical results. Astronomy and Astrophysics, 2006, 452, 641-646.	5.1	7
79	Stability of an MHD shear flow with a piecewise linear velocity profile. Astronomy and Astrophysics, 2006, 448, 1177-1184.	5.1	9
80	Resonantly damped oscillations of longitudinally stratified coronal loops. Astronomy and Astrophysics, 2006, 457, 1059-1070.	5.1	86
81	Nonlinear waves in the solar atmosphere. Philosophical Transactions Series A, Mathematical, Physical, and Engineering Sciences, 2006, 364, 485-504.	3.4	33
82	Leaky and non-leaky kink oscillations of magnetic flux tubes. Journal of Plasma Physics, 2006, 72, 285.	2.1	26
83	Comment on â€œNote on the Initial Value Problem for Coronal Loop Kink Wavesâ€•By P. S. Cally. Solar Physics, 2006, 237, 119-121.	2.5	9
84	The geometry effect on transverse oscillations of coronal loops. Astronomy and Astrophysics, 2006, 459, 241-244.	5.1	39
85	Non-Axisymmetric Oscillations of Thin Prominence Fibrils. Solar Physics, 2005, 229, 79-94.	2.5	115
86	Absolute and Convective Instabilities of Circularly Polarized AlfvÃ©n Waves. Space Science Reviews, 2005, 121, 287-297.	8.1	2
87	Comment on â€œSlow nonlinear waves in magnetic flux tubesâ€•[Phys. Plasmas 11, 2256 (2004)]. Physics of Plasmas, 2005, 12, 034701.	1.9	26
88	Absolute and convective instabilities of parallel propagating circularly polarized AlfvÃ©n waves: Beat instability. Physics of Plasmas, 2005, 12, 062103.	1.9	7
89	Absolute and convective instabilities of parallel propagating circularly polarized AlfvÃ©n waves: Decay instability. Physics of Plasmas, 2004, 11, 4178-4187.	1.9	6
90	Kelvinâ€“Helmholtz absolute and convective instabilities of, and signalling in, an inviscid fluidâ€“viscous fluid configuration. Proceedings of the Royal Society A: Mathematical, Physical and Engineering Sciences, 2004, 460, 847-874.	2.1	15

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91	The stability of parallel-propagating circularly polarized Alfvn waves revisited. Journal of Plasma Physics, 2004, 70, 143-153.	2.1	14
92	Nonlinear Waves in the Magnetically Structured Solar Atmosphere. NATO Science Series Series II, Mathematics, Physics and Chemistry, 2003, , 239-274.	0.1	8
93	The resonant damping of oscillations of coronal loops with elliptic cross-sections. Astronomy and Astrophysics, 2003, 409, 287-297.	5.1	64
94	Propagation of solitons of the Derivative Nonlinear SchrÃ¶dinger equation in a plasma with fluctuating density. Physics of Plasmas, 2002, 9, 2940-2945.	1.9	40
95	The Damping of Coronal Loop Oscillations. Astrophysical Journal, 2002, 577, 475-486.	4.5	422
96	The dynamics of current carriers in standing AlfvÃ©n waves: Parallel electric fields in the auroral acceleration region. Journal of Geophysical Research, 2002, 107, SMP 19-1.	3.3	38
97	The nature of convectively unstable waveguide mode disturbances on the magnetospheric flanks. Journal of Geophysical Research, 2002, 107, SMP 14-1.	3.3	10
98	DNLS equation for large-amplitude solitons propagating in an arbitrary direction in a high-Î² Hall plasma. Journal of Plasma Physics, 2002, 67, 271-276.	2.1	98
99	Interaction of sound waves with an inhomogeneous magnetized plasma in a strongly nonlinear resonant slow-wave layer. Journal of Plasma Physics, 2000, 63, 43-77.	2.1	13
100	Title is missing!. Astrophysics and Space Science, 2000, 274, 327-341.	1.4	18
101	Interaction of sound waves with inhomogeneous magnetized plasma in strongly nonlinear resonant slow wave layer. AIP Conference Proceedings, 2000, , .	0.4	0
102	Kelvin-Helmholtz instability on the magnetospheric flanks: An absolute and convective instability approach. Journal of Geophysical Research, 2000, 105, 27685-27699.	3.3	27
103	The absolute and convective instability of the magnetospheric flanks. Journal of Geophysical Research, 2000, 105, 385-393.	3.3	28
104	Coronal Loop Heating by Torsional Alfven Waves Directly Driven by Footpoint Motions: Harmonic Driving versus Stochastic Driving. Astrophysical Journal, 1999, 521, 851-858.	4.5	36
105	Excitation of resonant AlfvÃ©n waves in the magnetosphere by negative energy surface waves on the magnetopause. Journal of Geophysical Research, 1998, 103, 26573-26584.	3.3	22
106	Nonlinear theory of slow dissipative layers in anisotropic plasmas. Physics of Plasmas, 1998, 5, 252-260.	1.9	34
107	Nonlinear theory of resonant slow waves in dissipative layers. Physics of Plasmas, 1997, 4, 75-90.	1.9	40
108	Unified theory of damping of linear surface AlfvÃ©n waves in inhomogeneous incompressible plasmas. Journal of Plasma Physics, 1996, 56, 107-125.	2.1	4

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109	Dissipative instability of the MHD tangential discontinuity in magnetized plasmas with anisotropic viscosity and thermal conductivity. Journal of Plasma Physics, 1996, 56, 285-306.	2.1	32
110	Conservation laws and connection formulae for resonant MHD waves. Physica Scripta, 1995, T60, 171-184.	2.5	67
111	Non-stationary resonant AlfvÃ©n surface waves in one-dimensional magnetic plasmas. Journal of Plasma Physics, 1995, 54, 129-148.	2.1	38
112	Surface AlfvÃ©n waves of negative energy. Journal of Plasma Physics, 1995, 54, 149-155.	2.1	21
113	Analytic solutions for resonant Alfvï¿½n waves in 1D magnetic flux tubes in dissipative stationary MHD. Solar Physics, 1995, 161, 123-138.	2.5	29
114	Nonlinearity effects on resonant absorption of surface Alfvï¿½n waves in incompressible plasmas. Solar Physics, 1993, 143, 69-88.	2.5	22
115	Long, nonlinear, non-axisymmetric surface-wave propagation in a magnetic tube. Journal of Plasma Physics, 1992, 47, 175-191.	2.1	29
116	Nonlinear dissipation of surface Alfven waves in the solar corona. Astrophysical Journal, 1992, 399, 724.	4.5	7
117	Viscous damping of surface magnetohydrodynamic waves on magnetic interface in cold plasmas. Solar Physics, 1991, 131, 11-24.	2.5	22
118	Longitudinal propagation of nonlinear surface Alfven waves at a magnetic interface in a compressible atmosphere. Plasma Physics and Controlled Fusion, 1988, 30, 1117-1125.	2.1	12
119	Long nonlinear waves in a compressible magnetically structured atmosphere. Solar Physics, 1987, 109, 247-263.	2.5	50
120	Propagation of nonlinear Alfvï¿½n surface waves along a tangential magnetohydrodynamic discontinuity in an incompressible fluid. Fluid Dynamics, 1985, 20, 85-92.	0.9	8
121	Structure of the region of solar wind?Interstellar medium interaction and its influence on H atoms penetrating the solar wind. Astrophysics and Space Science, 1979, 66, 441-451.	1.4	83
122	On the model of the solar wind-interstellar medium interaction with two shock waves. Astrophysics and Space Science, 1976, 41, 481-490.	1.4	33
123	Excitation of decayless kink oscillations by random motion. Monthly Notices of the Royal Astronomical Society, 0, , .	4.4	12
124	On the stability of tangential discontinuity in the interaction of solar wind and cometary atmospheres. Monthly Notices of the Royal Astronomical Society, 0, , .	4.4	1