

Michael Ruderman

List of Publications by Year in Descending Order

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The third column is the impact factor (IF) of the journal, and the fourth column is the number of citations of the article.

119
papers

3,127
citations

30
h-index

51
g-index

126
ext. papers

3,452
ext. citations

3.7
avg, IF

5.79
L-index

| # | Paper | IF | Citations |
|-----|--|-----|-----------|
| 119 | Reflection and Evolution of Torsional Alfvén Pulses in Zero-beta Flux Tubes. <i>Astrophysical Journal</i> , 2021 , 922, 118 | 4.7 | 0 |
| 118 | Nonlinear Damping of Standing Kink Waves Computed With Elsässer Variables. <i>Astrophysical Journal</i> , 2021 , 910, 58 | 4.7 | 8 |
| 117 | Propagation of Torsional Alfvén Pulses in Zero-beta Flux Tubes. <i>Astrophysical Journal</i> , 2021 , 911, 39 | 4.7 | 2 |
| 116 | Resonant Instability of Kink Oscillations in Magnetic Flux Tubes with Siphon Flow. <i>Solar Physics</i> , 2021 , 296, 1 | 2.6 | 0 |
| 115 | Significance of Cooling Effect on Comprehension of Kink Oscillations of Coronal Loops. <i>Frontiers in Astronomy and Space Sciences</i> , 2021 , 7, | 3.8 | 3 |
| 114 | Decayless Kink Oscillations Excited by Random Driving: Motion in Transitional Layer. <i>Solar Physics</i> , 2021 , 296, 1 | 2.6 | 3 |
| 113 | Excitation of decayless kink oscillations by random motion. <i>Monthly Notices of the Royal Astronomical Society</i> , 2020 , | 4.3 | 5 |
| 112 | Resonant damping and instability of propagating kink waves in flowing and twisted magnetic flux tubes. <i>Monthly Notices of the Royal Astronomical Society</i> , 2020 , 496, 67-79 | 4.3 | 5 |
| 111 | Quasi-parallel propagation of solitary waves in magnetised non-relativistic electron-positron plasmas. <i>Journal of Plasma Physics</i> , 2020 , 86, | 2.7 | 2 |
| 110 | Formation of Chromospheric Spicules in Magnetic Bright Points: An Analytical Approach Using Cartesian Slab Geometry. <i>Astrophysical Journal</i> , 2020 , 905, 168 | 4.7 | 3 |
| 109 | Resonant Damping of Propagating Kink Waves in Non-stationary, Longitudinally Stratified, and Expanding Solar Waveguides. <i>Frontiers in Astronomy and Space Sciences</i> , 2019 , 6, | 3.8 | 5 |
| 108 | Effect of siphon flow on resonant damping of kink oscillations in magnetic flux tubes. <i>Astronomy and Astrophysics</i> , 2019 , 631, A31 | 5.1 | 9 |
| 107 | An Analytical Model of the Kelvin-Helmholtz Instability of Transverse Coronal Loop Oscillations. <i>Astrophysical Journal</i> , 2019 , 870, 108 | 4.7 | 17 |
| 106 | Negative energy standing wave instability in the presence of flow. <i>Journal of Plasma Physics</i> , 2018 , 84, | 2.7 | 5 |
| 105 | Phase mixing of Alfvén waves in axisymmetric non-reflective magnetic plasma configurations. <i>Monthly Notices of the Royal Astronomical Society</i> , 2018 , 474, 2289-2301 | 4.3 | 5 |
| 104 | Resonant damping of kink oscillations of thin expanding magnetic tubes. <i>Astronomy and Astrophysics</i> , 2018 , 615, A156 | 5.1 | 8 |
| 103 | Rayleigh-Taylor instability of a magnetic tangential discontinuity in the presence of oscillating gravitational acceleration. <i>Astronomy and Astrophysics</i> , 2018 , 615, A130 | 5.1 | 1 |

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| 102 | Resonant damping of kink oscillations of thin cooling and expanding coronal magnetic loops. <i>Astronomy and Astrophysics</i> , 2018 , 619, A173 | 5.1 | 9 |
| 101 | Propagation of leaky surface waves on contact magnetohydrodynamic discontinuities in incompressible plasmas. <i>Physics of Plasmas</i> , 2018 , 25, 122107 | 2.1 | 2 |
| 100 | Phase mixing of Alfvén waves in two-dimensional magnetic plasma configurations with exponentially decreasing density. <i>Astronomy and Astrophysics</i> , 2018 , 620, A44 | 5.1 | 4 |
| 99 | Rayleigh-Taylor instabilities with sheared magnetic fields in partially ionised plasmas. <i>Astronomy and Astrophysics</i> , 2018 , 609, A23 | 5.1 | 7 |
| 98 | Phase mixing of Alfvén waves propagating in non-reflective magnetic plasma configurations. <i>Astronomy and Astrophysics</i> , 2017 , 600, A122 | 5.1 | 6 |
| 97 | Kink oscillations of cooling coronal loops with variable cross-section. <i>Astronomy and Astrophysics</i> , 2017 , 602, A50 | 5.1 | 12 |
| 96 | Compressibility Effect on the Rayleigh–Taylor Instability with Sheared Magnetic Fields. <i>Solar Physics</i> , 2017 , 292, 1 | 2.6 | 7 |
| 95 | Nonlinear Generation of Fluting Perturbations by Kink Mode. <i>Solar Physics</i> , 2017 , 292, 111 | 2.6 | 7 |
| 94 | On the Evolution of Pre-Flare Patterns of a 3-Dimensional Model of AR 11429. <i>Proceedings of the International Astronomical Union</i> , 2017 , 13, 294-297 | 0.1 | 1 |
| 93 | On the Ratio of Periods of the Fundamental Harmonic and First Overtone of Magnetic Tube Kink Oscillations. <i>Solar Physics</i> , 2016 , 291, 1143-1157 | 2.6 | 21 |
| 92 | Damping of prominence longitudinal oscillations due to mass accretion. <i>Astronomy and Astrophysics</i> , 2016 , 591, A131 | 5.1 | 26 |
| 91 | Nonlinear radial oscillations of coronal loops. <i>Geomagnetism and Aeronomy</i> , 2016 , 56, 1040-1044 | 0.9 | 3 |
| 90 | Possible Cross-Section for a Coronal Loop of Given Shape?. <i>Solar Physics</i> , 2015 , 290, 423-435 | 2.6 | 4 |
| 89 | Non-reflective Propagation of Kink Pulses in Magnetic Waveguides in the Solar Atmosphere. <i>Solar Physics</i> , 2015 , 290, 1323-1335 | 2.6 | 6 |
| 88 | PROPAGATION AND DISPERSION OF SAUSAGE WAVE TRAINS IN MAGNETIC FLUX TUBES. <i>Astrophysical Journal</i> , 2015 , 806, 56 | 4.7 | 32 |
| 87 | Nonlinear fast sausage waves in homogeneous magnetic flux tubes. <i>Journal of Plasma Physics</i> , 2015 , 81, | 2.7 | 17 |
| 86 | Standing kink oscillations of thin twisted magnetic tubes with continuous equilibrium magnetic field. <i>Astronomy and Astrophysics</i> , 2015 , 580, A57 | 5.1 | 15 |
| 85 | Propagating kink waves in thin twisted magnetic tubes with continuous equilibrium magnetic field. <i>Astronomy and Astrophysics</i> , 2015 , 575, A130 | 5.1 | 30 |

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| 84 | Rayleigh-Taylor instability of a magnetic tangential discontinuity in the presence of flow. <i>Astronomy and Astrophysics</i> , 2015 , 580, A37 | 5.1 | 6 |
| 83 | Nonlinear Kink Oscillations of Coronal Magnetic Loops. <i>Solar Physics</i> , 2014 , 289, 1999-2020 | 2.6 | 11 |
| 82 | ELECTRON THERMAL CONDUCTION AS A POSSIBLE PHYSICAL MECHANISM TO MAKE THE INNER HELIOSHEATH THINNER. <i>Astrophysical Journal Letters</i> , 2014 , 795, L7 | 7.9 | 20 |
| 81 | The structure of fast sausage waves in current-carrying coronal loops. <i>Annales Geophysicae</i> , 2014 , 32, 1189-1193 | 2 | 15 |
| 80 | PROPAGATION AND DISPERSION OF TRANSVERSE WAVE TRAINS IN MAGNETIC FLUX TUBES. <i>Astrophysical Journal</i> , 2014 , 789, 48 | 4.7 | 25 |
| 79 | Kink Oscillations of Thin Magnetic Tubes with Discontinuous Density. <i>Solar Physics</i> , 2014 , 289, 2473-2485. | 2.6 | 6 |
| 78 | Non-reflective Propagation of Kink Waves in Coronal Magnetic Loops. <i>Solar Physics</i> , 2013 , 286, 417-426 | 2.6 | 8 |
| 77 | On the effect of transport coefficient anisotropy on the plasma flow in heliospheric interface. <i>Monthly Notices of the Royal Astronomical Society</i> , 2013 , 434, 3202-3207 | 4.3 | 7 |
| 76 | Effect of stratification on the frequency of bounded Rossby modes over a non-flat bottom. <i>Geophysical and Astrophysical Fluid Dynamics</i> , 2013 , 107, 541-563 | 1.4 | |
| 75 | Damping of coronal loop kink oscillations due to mode conversion. <i>Astronomy and Astrophysics</i> , 2013 , 555, A27 | 5.1 | 43 |
| 74 | Fast Sausage Waves in Current-Carrying Coronal Loops. <i>Solar Physics</i> , 2012 , 280, 153-163 | 2.6 | 30 |
| 73 | Observations of ubiquitous compressive waves in the Sun's chromosphere. <i>Nature Communications</i> , 2012 , 3, 1315 | 17.4 | 128 |
| 72 | Damped kink oscillations of flowing prominence threads. <i>Astronomy and Astrophysics</i> , 2012 , 546, A82 | 5.1 | 13 |
| 71 | Coronal Seismology Using Transverse Oscillations of Non-planar Coronal Loops. <i>Solar Physics</i> , 2012 , 278, 177-185 | 2.6 | 4 |
| 70 | Torsional Alfvén waves: magneto-seismology in static and dynamic coronal plasmas. <i>Astronomy and Astrophysics</i> , 2011 , 534, A27 | 5.1 | 14 |
| 69 | Resonant damping of kink oscillations of cooling coronal magnetic loops. <i>Astronomy and Astrophysics</i> , 2011 , 534, A78 | 5.1 | 30 |
| 68 | Resonantly damped oscillations of two coronal loops. <i>Astronomy and Astrophysics</i> , 2011 , 525, A4 | 5.1 | 8 |
| 67 | Transverse Oscillations of Coronal Loops with Slowly Changing Density. <i>Solar Physics</i> , 2011 , 271, 41-54 | 2.6 | 35 |

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| 66 | Resonant MHD Waves in the Solar Atmosphere. <i>Space Science Reviews</i> , 2011 , 158, 289-338 | 7.5 | 153 |
| 65 | Nonlinear Effects in Resonant Layers in Solar and Space Plasmas. <i>Space Science Reviews</i> , 2011 , 158, 421-450 | 7.5 | 6 |
| 64 | MHD Waves and Instabilities in Space Plasma Flows. <i>Space Science Reviews</i> , 2011 , 158, 505-523 | 7.5 | 11 |
| 63 | Kink and fluting modes of stratified coronal magnetic loops with elliptical cross-sections. <i>Astronomy and Astrophysics</i> , 2011 , 527, A53 | 5.1 | 15 |
| 62 | Transverse oscillations of non-planar coronal loops. <i>Astronomy and Astrophysics</i> , 2011 , 529, A33 | 5.1 | 8 |
| 61 | The structure of the hydrodynamic plasma flow near the heliopause stagnation point. <i>Monthly Notices of the Royal Astronomical Society</i> , 2010 , 401, 607-612 | 4.3 | 7 |
| 60 | The effect of density stratification on the transverse oscillations of two parallel coronal loops. <i>Astronomy and Astrophysics</i> , 2010 , 515, A33 | 5.1 | 11 |
| 59 | Nonlinear propagating kink waves in thin magnetic tubes. <i>Physics of Plasmas</i> , 2010 , 17, 082108 | 2.1 | 39 |
| 58 | Stability of MHD shear flows: Application to space physics. <i>Journal of Physics: Conference Series</i> , 2010 , 216, 012016 | 0.3 | 7 |
| 57 | The Effect of Flows on Transverse Oscillations of Coronal Loops. <i>Solar Physics</i> , 2010 , 267, 377-391 | 2.6 | 35 |
| 56 | On the vertical and horizontal transverse oscillations of curved coronal loops. <i>Astronomy and Astrophysics</i> , 2009 , 506, 885-893 | 5.1 | 13 |
| 55 | Kinetic-Gasdynamic Modeling of the Heliospheric Interface. <i>Space Science Reviews</i> , 2009 , 146, 329-351 | 7.5 | 97 |
| 54 | Transverse Oscillations of Coronal Loops. <i>Space Science Reviews</i> , 2009 , 149, 199-228 | 7.5 | 138 |
| 53 | On the Convection in a Porous Medium with Inclined Temperature Gradient and Vertical Throughflow. Part I. Normal Modes. <i>Transport in Porous Media</i> , 2009 , 80, 137-151 | 3.1 | 25 |
| 52 | On the Convection in a Porous Medium with Inclined Temperature Gradient and Vertical Throughflow. Part II. Absolute and Convective Instabilities, and Spatially Amplifying Waves. <i>Transport in Porous Media</i> , 2009 , 80, 153-172 | 3.1 | 24 |
| 51 | Dynamics of modulationally unstable ion-acoustic wavepackets in plasmas with negative ions. <i>Journal of Plasma Physics</i> , 2008 , 74, 639-656 | 2.7 | 71 |
| 50 | Parametric instabilities of circularly polarized small-amplitude Alfvén waves in Hall plasmas. <i>Journal of Plasma Physics</i> , 2008 , 74, 119-138 | 2.7 | 6 |
| 49 | Transverse Oscillations of Longitudinally Stratified Coronal Loops with Variable Cross Section. <i>Astrophysical Journal</i> , 2008 , 686, 694-700 | 4.7 | 106 |

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|----|--|-----|-----|
| 48 | Transverse oscillations of two parallel coronal loops. <i>Astronomy and Astrophysics</i> , 2008 , 485, 849-857 | 5.1 | 36 |
| 47 | Resonantly damped oscillations of longitudinally stratified coronal loops. <i>Astronomy and Astrophysics</i> , 2007 , 463, 759-759 | 5.1 | 8 |
| 46 | Nonaxisymmetric Oscillations of Thin Twisted Magnetic Tubes. <i>Solar Physics</i> , 2007 , 246, 119-131 | 2.6 | 60 |
| 45 | Non-axisymmetric oscillations of thin twisted magnetic tubes. <i>Proceedings of the International Astronomical Union</i> , 2007 , 3, 344-350 | 0.1 | |
| 44 | Absolute and convective instabilities of parallel propagating circularly polarized Alfvén waves: numerical results. <i>Astronomy and Astrophysics</i> , 2006 , 452, 641-646 | 5.1 | 7 |
| 43 | Stability of an MHD shear flow with a piecewise linear velocity profile. <i>Astronomy and Astrophysics</i> , 2006 , 448, 1177-1184 | 5.1 | 7 |
| 42 | Resonantly damped oscillations of longitudinally stratified coronal loops. <i>Astronomy and Astrophysics</i> , 2006 , 457, 1059-1070 | 5.1 | 78 |
| 41 | Nonlinear waves in the solar atmosphere. <i>Philosophical Transactions Series A, Mathematical, Physical, and Engineering Sciences</i> , 2006 , 364, 485-504 | 3 | 28 |
| 40 | Leaky and non-leaky kink oscillations of magnetic flux tubes. <i>Journal of Plasma Physics</i> , 2006 , 72, 285 | 2.7 | 23 |
| 39 | Comment on Note on the Initial Value Problem for Coronal Loop Kink Waves [By P. S. Cally. <i>Solar Physics</i> , 2006 , 237, 119-121 | 2.6 | 8 |
| 38 | The geometry effect on transverse oscillations of coronal loops. <i>Astronomy and Astrophysics</i> , 2006 , 459, 241-244 | 5.1 | 36 |
| 37 | Non-Axisymmetric Oscillations of Thin Prominence Fibrils. <i>Solar Physics</i> , 2005 , 229, 79-94 | 2.6 | 104 |
| 36 | Absolute and Convective Instabilities of Circularly Polarized Alfvén Waves. <i>Space Science Reviews</i> , 2005 , 121, 287-297 | 7.5 | 2 |
| 35 | Comment on Slow nonlinear waves in magnetic flux tubes [Phys. Plasmas 11, 2256 (2004)]. <i>Physics of Plasmas</i> , 2005 , 12, 034701 | 2.1 | 23 |
| 34 | Absolute and convective instabilities of parallel propagating circularly polarized Alfvén waves: Beat instability. <i>Physics of Plasmas</i> , 2005 , 12, 062103 | 2.1 | 7 |
| 33 | Absolute and convective instabilities of parallel propagating circularly polarized Alfvén waves: Decay instability. <i>Physics of Plasmas</i> , 2004 , 11, 4178-4187 | 2.1 | 5 |
| 32 | Kelvin-Helmholtz absolute and convective instabilities of, and signalling in, an inviscid fluid-viscous fluid configuration. <i>Proceedings of the Royal Society A: Mathematical, Physical and Engineering Sciences</i> , 2004 , 460, 847-874 | 2.4 | 13 |
| 31 | The stability of parallel-propagating circularly polarized Alfvén waves revisited. <i>Journal of Plasma Physics</i> , 2004 , 70, 143-153 | 2.7 | 14 |

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|----|---|-----|-----|
| 30 | Nonlinear Waves in the Magnetically Structured Solar Atmosphere. <i>NATO Science Series Series II, Mathematics, Physics and Chemistry</i> , 2003 , 239-274 | | 7 |
| 29 | The resonant damping of oscillations of coronal loops with elliptic cross-sections. <i>Astronomy and Astrophysics</i> , 2003 , 409, 287-297 | 5.1 | 60 |
| 28 | Propagation of solitons of the Derivative Nonlinear Schrödinger equation in a plasma with fluctuating density. <i>Physics of Plasmas</i> , 2002 , 9, 2940-2945 | 2.1 | 37 |
| 27 | The Damping of Coronal Loop Oscillations. <i>Astrophysical Journal</i> , 2002 , 577, 475-486 | 4.7 | 382 |
| 26 | The dynamics of current carriers in standing Alfvén waves: Parallel electric fields in the auroral acceleration region. <i>Journal of Geophysical Research</i> , 2002 , 107, SMP 19-1 | | 32 |
| 25 | The nature of convectively unstable waveguide mode disturbances on the magnetospheric flanks. <i>Journal of Geophysical Research</i> , 2002 , 107, SMP 14-1 | | 9 |
| 24 | DNLS equation for large-amplitude solitons propagating in an arbitrary direction in a high- Ω plasma. <i>Journal of Plasma Physics</i> , 2002 , 67, 271-276 | 2.7 | 86 |
| 23 | Interaction of sound waves with an inhomogeneous magnetized plasma in a strongly nonlinear resonant slow-wave layer. <i>Journal of Plasma Physics</i> , 2000 , 63, 43-77 | 2.7 | 10 |
| 22 | Absolute and Convective Instability of Tangential Discontinuities in Viscous Fluids: Application to Heliopause. <i>Astrophysics and Space Science</i> , 2000 , 274, 327-341 | 1.6 | 15 |
| 21 | Kelvin-Helmholtz instability on the magnetospheric flanks: An absolute and convective instability approach. <i>Journal of Geophysical Research</i> , 2000 , 105, 27685-27699 | | 27 |
| 20 | The absolute and convective instability of the magnetospheric flanks. <i>Journal of Geophysical Research</i> , 2000 , 105, 385-393 | | 24 |
| 19 | Coronal Loop Heating by Torsional Alfvén Waves Directly Driven by Footpoint Motions: Harmonic Driving versus Stochastic Driving. <i>Astrophysical Journal</i> , 1999 , 521, 851-858 | 4.7 | 32 |
| 18 | Excitation of resonant Alfvén waves in the magnetosphere by negative energy surface waves on the magnetopause. <i>Journal of Geophysical Research</i> , 1998 , 103, 26573-26584 | | 21 |
| 17 | Nonlinear theory of slow dissipative layers in anisotropic plasmas. <i>Physics of Plasmas</i> , 1998 , 5, 252-260 | 2.1 | 28 |
| 16 | Nonlinear theory of resonant slow waves in dissipative layers. <i>Physics of Plasmas</i> , 1997 , 4, 75-90 | 2.1 | 32 |
| 15 | Unified theory of damping of linear surface Alfvén waves in inhomogeneous incompressible plasmas. <i>Journal of Plasma Physics</i> , 1996 , 56, 107-125 | 2.7 | 3 |
| 14 | Dissipative instability of the MHD tangential discontinuity in magnetized plasmas with anisotropic viscosity and thermal conductivity. <i>Journal of Plasma Physics</i> , 1996 , 56, 285-306 | 2.7 | 31 |
| 13 | Analytic solutions for resonant Alfvén waves in 1D magnetic flux tubes in dissipative stationary MHD. <i>Solar Physics</i> , 1995 , 161, 123-138 | 2.6 | 23 |

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| 12 | Conservation laws and connection formulae for resonant MHD waves. <i>Physica Scripta</i> , 1995 , T60, 171-184.6 | 57 |
| 11 | Non-stationary resonant Alfvén surface waves in one-dimensional magnetic plasmas. <i>Journal of Plasma Physics</i> , 1995 , 54, 129-148 | 2.7 32 |
| 10 | Surface Alfvén waves of negative energy. <i>Journal of Plasma Physics</i> , 1995 , 54, 149-155 | 2.7 19 |
| 9 | Nonlinearity effects on resonant absorption of surface Alfvén waves in incompressible plasmas. <i>Solar Physics</i> , 1993 , 143, 69-88 | 2.6 21 |
| 8 | Long, nonlinear, non-axisymmetric surface-wave propagation in a magnetic tube. <i>Journal of Plasma Physics</i> , 1992 , 47, 175-191 | 2.7 24 |
| 7 | Nonlinear dissipation of surface Alfvén waves in the solar corona. <i>Astrophysical Journal</i> , 1992 , 399, 724 | 4.7 6 |
| 6 | Viscous damping of surface magnetohydrodynamic waves on magnetic interface in cold plasmas. <i>Solar Physics</i> , 1991 , 131, 11-24 | 2.6 20 |
| 5 | Longitudinal propagation of nonlinear surface Alfvén waves at a magnetic interface in a compressible atmosphere. <i>Plasma Physics and Controlled Fusion</i> , 1988 , 30, 1117-1125 | 2 12 |
| 4 | Long nonlinear waves in a compressible magnetically structured atmosphere. <i>Solar Physics</i> , 1987 , 109, 247-263 | 2.6 46 |
| 3 | Propagation of nonlinear Alfvén surface waves along a tangential magnetohydrodynamic discontinuity in an incompressible fluid. <i>Fluid Dynamics</i> , 1985 , 20, 85-92 | 0.7 8 |
| 2 | Structure of the region of solar wind-interstellar medium interaction and its influence on H atoms penetrating the solar wind. <i>Astrophysics and Space Science</i> , 1979 , 66, 441-451 | 1.6 74 |
| 1 | On the model of the solar wind-interstellar medium interaction with two shock waves. <i>Astrophysics and Space Science</i> , 1976 , 41, 481-490 | 1.6 26 |