

# Paul S. Cally

## List of Publications by Year in descending order

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136  
papers

3,658  
citations

109321

35  
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155660

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142  
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142  
docs citations

142  
times ranked

970  
citing authors

#	ARTICLE	IF	CITATIONS
1	Chromospheric Heating by Magnetohydrodynamic Waves and Instabilities. <i>Journal of Geophysical Research: Space Physics</i> , 2021, 126, e2020JA029097.	2.4	25
2	Conversion and Smoothing of MHD Shocks in Atmospheres with Open and Closed Magnetic Field and Neutral Points. <i>Solar Physics</i> , 2021, 296, 1.	2.5	2
3	Benchmarking hall-induced magnetoacoustic to Alfvén mode conversion in the solar chromosphere. <i>Monthly Notices of the Royal Astronomical Society</i> , 2021, 507, 2671-2683.	4.4	3
4	On the fragility of Alfvén waves in a stratified atmosphere. <i>Monthly Notices of the Royal Astronomical Society</i> , 2021, 510, 1093-1105.	4.4	6
5	Smoothing of MHD Shocks in Mode Conversion. <i>Astrophysical Journal Letters</i> , 2019, 881, L21.	8.3	8
6	Hall-coupling of Slow and Alfvén Waves at Low Frequencies in the Lower Solar Atmosphere. <i>Solar Physics</i> , 2019, 294, 1.	2.5	9
7	Fast-to-Alfvén Mode Conversion and Ambipolar Heating in Structured Media. II. Numerical Simulation. <i>Astrophysical Journal</i> , 2019, 883, 179.	4.5	21
8	Fast-to-Alfvén Mode Conversion Mediated by Hall Current. II. Application to the Solar Atmosphere. <i>Astrophysical Journal</i> , 2019, 870, 94.	4.5	18
9	An introductory guide to fluid models with anisotropic temperatures. Part 2. Kinetic theory, Padé approximants and Landau fluid closures. <i>Journal of Plasma Physics</i> , 2019, 85, .	2.1	19
10	An introductory guide to fluid models with anisotropic temperatures. Part 1. CGL description and collisionless fluid hierarchy. <i>Journal of Plasma Physics</i> , 2019, 85, .	2.1	32
11	Fast-to-Alfvén Mode Conversion and Ambipolar Heating in Structured Media. I. Simplified Cold Plasma Model. <i>Astrophysical Journal</i> , 2019, 885, 58.	4.5	14
12	Role of Interaction between Magnetic Rossby Waves and Tachocline Differential Rotation in Producing Solar Seasons. <i>Astrophysical Journal</i> , 2018, 853, 144.	4.5	56
13	A study of acoustic halos in active region NOAA 11330 using multi-height SDO observations. <i>Advances in Space Research</i> , 2018, 61, 691-704.	2.6	2
14	Sensitivity of coronal loop sausage mode frequencies and decay rates to radial and longitudinal density inhomogeneities: a spectral approach. <i>Journal of Physics A: Mathematical and Theoretical</i> , 2018, 51, 025501.	2.1	6
15	Fast-to-Alfvén Mode Conversion in the Presence of Ambipolar Diffusion. <i>Astrophysical Journal</i> , 2018, 856, 20.	4.5	16
16	Probing sunspots with two-skip time-distance helioseismology. <i>Astronomy and Astrophysics</i> , 2018, 613, A73.	5.1	4
17	Alfvén waves in the structured solar corona. <i>Monthly Notices of the Royal Astronomical Society</i> , 2017, 466, 413-424.	4.4	30
18	The Origin of the “Seasons” in Space Weather. <i>Scientific Reports</i> , 2017, 7, 14750.	3.3	53

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19	Helioseismology with Solar Orbiter. Space Sciences Series of ISSI, 2017, , 257-289.	0.0	0
20	On mode conversion, reflection, and transmission of magnetoacoustic waves from above in an isothermal stratified atmosphere. Monthly Notices of the Royal Astronomical Society, 2016, 456, 1826-1836.	4.4	11
21	3D SIMULATIONS OF REALISTIC POWER HALOS IN MAGNETOHYDROSTATIC SUNSPOT ATMOSPHERES: LINKING THEORY AND OBSERVATION. Astrophysical Journal, 2016, 817, 45.	4.5	21
22	DIVISION E COMMISSION 10: SOLAR ACTIVITY. Proceedings of the International Astronomical Union, 2015, 11, 245-277.	0.0	1
23	Multiple Scattering of Seismic Waves from Ensembles of Upwardly Lossy Thin Flux Tubes. Solar Physics, 2015, 290, 1889-1896.	2.5	3
24	FAST-TO-ALFVÉN MODE CONVERSION MEDIATED BY THE HALL CURRENT. I. COLD PLASMA MODEL. Astrophysical Journal, 2015, 814, 106.	4.5	28
25	MHD WAVE REFRACTION AND THE ACOUSTIC HALO EFFECT AROUND SOLAR ACTIVE REGIONS: A 3D STUDY. Astrophysical Journal, 2015, 801, 27.	4.5	15
26	Helioseismology with Solar Orbiter. Space Science Reviews, 2015, 196, 251-283.	8.1	17
27	Directional time-distance probing of model sunspot atmospheres. Monthly Notices of the Royal Astronomical Society, 2015, 449, 3074-3081.	4.4	8
28	SPECTROPOLARIMETRICALLY ACCURATE MAGNETOHYDROSTATIC SUNSPOT MODEL FOR FORWARD MODELING IN HELIOSEISMOLOGY. Astrophysical Journal, 2015, 807, 20.	4.5	10
29	Time-Distance Seismology and the Solar Transition Region. Solar Physics, 2014, 289, 4425-4432.	2.5	6
30	THE SCATTERING OF $f$ - AND $p$ -MODES FROM ENSEMBLES OF THIN MAGNETIC FLUX TUBES: AN ANALYTICAL APPROACH. Astrophysical Journal, 2014, 791, 129.	4.5	9
31	SENSITIVITY OF HELIOSEISMIC TRAVEL TIMES TO THE IMPOSITION OF A LORENTZ FORCE LIMITER IN COMPUTATIONAL HELIOSEISMOLOGY. Astrophysical Journal Letters, 2014, 782, L26.	8.3	9
32	AN ANALYTICAL APPROACH TO SCATTERING BETWEEN TWO THIN MAGNETIC FLUX TUBES IN A STRATIFIED ATMOSPHERE. Astrophysical Journal, 2014, 781, 125.	4.5	4
33	Seismology of the wounded Sun. Monthly Notices of the Royal Astronomical Society, 2013, 435, 2589-2597.	4.4	24
34	NEAR- AND FAR-FIELD RESPONSE TO COMPACT ACOUSTIC SOURCES IN STRATIFIED CONVECTION ZONES. Astrophysical Journal, 2013, 768, 35.	4.5	5
35	ALFVÉN WAVES IN SIMULATIONS OF SOLAR PHOTOSPHERIC VORTICES. Astrophysical Journal Letters, 2013, 776, L4.	8.3	70
36	Modelling Fast-Alfvén Mode Conversion Using SPARC. Journal of Physics: Conference Series, 2013, 440, 012047.	0.4	6

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37	Wave resonances and the partition of energy in ideal compressible magnetohydrodynamic fluids. <i>Physics of Plasmas</i> , 2012, 19, .	1.9	1
38	BENCHMARKING FAST-TO-ALFVÉN MODE CONVERSION IN A COLD MHD PLASMA. II. HOW TO GET ALFVÉN WAVES THROUGH THE SOLAR TRANSITION REGION. <i>Astrophysical Journal</i> , 2012, 751, 31.	4.5	39
39	Alfvén Reflection and Reverberation in the Solar Atmosphere. <i>Solar Physics</i> , 2012, 280, 33-50.	2.5	13
40	NUMERICAL SIMULATIONS OF CONVERSION TO ALFVÉN WAVES IN SUNSPOTS. <i>Astrophysical Journal</i> , 2012, 746, 68.	4.5	95
41	ON THE DISPERSION AND SCATTERING OF MAGNETOHYDRODYNAMIC WAVES BY LONGITUDINALLY STRATIFIED FLUX TUBES. <i>Astrophysical Journal</i> , 2011, 743, 164.	4.5	28
42	ANALYSES OF THREE-DIMENSIONAL MAGNETOHYDRODYNAMIC INSTABILITY OF ANTISOLAR LATITUDINAL DIFFERENTIAL ROTATION IN F, G, AND K STARS. <i>Astrophysical Journal</i> , 2011, 739, 4.	4.5	3
43	Numerical simulations of conversion to Alfvén waves in solar active regions. <i>Journal of Physics: Conference Series</i> , 2011, 271, 012042.	0.4	25
44	How to turn gravity waves into Alfvén waves and other such tricks. <i>Journal of Physics: Conference Series</i> , 2011, 271, 012037.	0.4	2
45	BENCHMARKING FAST-TO-ALFVÉN MODE CONVERSION IN A COLD MAGNETOHYDRODYNAMIC PLASMA. <i>Astrophysical Journal</i> , 2011, 738, 119.	4.5	66
46	Mode conversion of radiatively damped magnetogravity waves in the solar chromosphere. <i>Monthly Notices of the Royal Astronomical Society</i> , 2011, 417, 1162-1169.	4.4	12
47	Resonant Absorption as Mode Conversion? II. Temporal Ray Bundle. <i>Solar Physics</i> , 2011, 269, 105-110.	2.5	5
48	SEISMIC DISCRIMINATION OF THERMAL AND MAGNETIC ANOMALIES IN SUNSPOT UMBRAE. <i>Astrophysical Journal</i> , 2010, 719, 1144-1156.	4.5	21
49	Resonant Absorption as Mode Conversion?. <i>Solar Physics</i> , 2010, 266, 17-38.	2.5	25
50	Reflection and conversion of magnetogravity waves in the solar chromosphere: windows to the upper atmosphere. <i>Monthly Notices of the Royal Astronomical Society</i> , 2010, 402, 386-394.	4.4	30
51	AXISYMMETRIC MHD INSTABILITIES IN SOLAR/STELLAR TACHOCLINES. <i>Astrophysical Journal</i> , 2009, 692, 1421-1431.	4.5	15
52	MULTIPLE SCATTERING OF WAVES BY A PAIR OF GRAVITATIONALLY STRATIFIED FLUX TUBES. <i>Astrophysical Journal</i> , 2009, 697, 651-659.	4.5	15
53	NUMERICAL MODELS OF TRAVEL-TIME INHOMOGENEITIES IN SUNSPOTS. <i>Astrophysical Journal</i> , 2009, 690, L72-L75.	4.5	35
54	Phase Jumps in Local Helioseismology. <i>Solar Physics</i> , 2009, 254, 241-257.	2.5	16

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55	An Exact Test of Generalised Ray Theory in Local Helioseismology. Solar Physics, 2009, 255, 193-202.	2.5	24
56	Nonlinear Evolution of Axisymmetric Twisted Flux Tubes in the Solar Tachocline. Solar Physics, 2009, 260, 251-260.	2.5	4
57	Magnetic and thermal phase shifts in the local helioseismology of sunspots. Monthly Notices of the Royal Astronomical Society, 2009, 395, 1309-1318.	4.4	24
58	How surface magnetism affects helioseismic waves. Proceedings of the International Astronomical Union, 2009, 5, 349-350.	0.0	0
59	Three-Dimensional MHD Wave Propagation and Conversion to Alfvén Waves near the Solar Surface. I. Direct Numerical Solution. Solar Physics, 2008, 251, 251-265.	2.5	102
60	Physical Properties of Wave Motion in Inclined Magnetic Fields within Sunspot Penumbrae. Solar Physics, 2008, 251, 341-359.	2.5	21
61	Time-Average Distance Modelling in a Simulated Sunspot Atmosphere. Solar Physics, 2008, 251, 309-327.	2.5	28
62	Helioseismic analysis of the solar flare-induced sunquake of 2005 January 15 - II. A magnetoseismic study. Monthly Notices of the Royal Astronomical Society, 2008, 389, 1905-1910.	4.4	12
63	Three-dimensional magneto-shear instabilities in the solar tachocline - II. Axisymmetric case. Monthly Notices of the Royal Astronomical Society, 2008, 391, 891-900.	4.4	11
64	Three-dimensional ray propagation in a toy sunspot. Journal of Physics: Conference Series, 2008, 118, 012037.	0.4	1
65	A Comparison of the Acoustic Hardness of Acoustically Active and Non-Active Solar Flares. AIP Conference Proceedings, 2008, , .	0.4	0
66	Time-Average Distance Modelling in a Simulated Sunspot Atmosphere. , 2008, , 309-327.		0
67	Chromospheric Line Emission Analysis of the July 16, 2004 Sun Quake. AIP Conference Proceedings, 2007, , .	0.4	0
68	Correlative study of the emission from flares associated with Sun quakes. Proceedings of the International Astronomical Union, 2007, 3, 99-104.	0.0	0
69	HXR photospheric footprints. Proceedings of the International Astronomical Union, 2007, 3, 110-113.	0.0	0
70	Global MHD instabilities of the tachocline. , 2007, , 243-274.		14
71	What to look for in the seismology of solar active regions. Astronomische Nachrichten, 2007, 328, 286-291.	1.2	74
72	Surface magnetic field effects in local helioseismology. Astronomische Nachrichten, 2007, 328, 292-297.	1.2	11

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73	Magnetoseismic signatures and flow diagnostics beneath magnetic regions. <i>Astronomische Nachrichten</i> , 2007, 328, 298-304.	1.2	4
74	Helioseismic analysis of the solar flare-induced sunquake of 2005 January 15. <i>Monthly Notices of the Royal Astronomical Society</i> , 2007, 374, 1155-1163.	4.4	42
75	From Gigahertz to Millihertz: A Multiwavelength Study of the Acoustically Active 14 August 2004 M7.4 Solar Flare. <i>Solar Physics</i> , 2007, 245, 121-139.	2.5	15
76	Chromospheric line emission in seismically active flares. <i>Advances in Space Research</i> , 2007, 40, 1921-1925.	2.6	5
77	Modified p-modes in penumbral filaments?. <i>Astronomy and Astrophysics</i> , 2007, 469, 1155-1161.	5.1	10
78	Dispersion relations, rays and ray splitting in magnetohelioseismology. <i>Philosophical Transactions Series A, Mathematical, Physical, and Engineering Sciences</i> , 2006, 364, 333-349.	3.4	82
79	Seismic Radiation from M-class Solar Flares. <i>Proceedings of the International Astronomical Union</i> , 2006, 2, 385.	0.0	2
80	Magnetic field inclination and atmospheric oscillations above solar active regions. <i>Monthly Notices of the Royal Astronomical Society</i> , 2006, 372, 551-564.	4.4	159
81	Seismic Emission from A M9.5-Class Solar Flare. <i>Solar Physics</i> , 2006, 239, 113-135.	2.5	48
82	Note on the Initial Value Problem for Coronal Loop Kink Waves. <i>Solar Physics</i> , 2006, 233, 79-87.	2.5	11
83	The Local Helioseismology of Inclined Magnetic Fields and the Showerglass Effect. <i>Astrophysical Journal</i> , 2005, 621, L149-L152.	4.5	61
84	Observations and Interpretation of Subsurface Magnetic Structures. <i>Highlights of Astronomy</i> , 2005, 13, 435-438.	0.0	0
85	Local magnetohelioseismology of active regions. <i>Monthly Notices of the Royal Astronomical Society</i> , 2005, 358, 353-362.	4.4	55
86	Genetic magnetohelioseismology with Hankel analysis data. <i>Monthly Notices of the Royal Astronomical Society</i> , 2005, 363, 1188-1204.	4.4	42
87	Mode Conversion of Solar p-Modes in Non-Vertical Magnetic Fields. <i>Solar Physics</i> , 2005, 227, 1-26.	2.5	43
88	The Solar Tachocline: Limiting Magneto-Tipping Instabilities. <i>Symposium - International Astronomical Union</i> , 2004, 219, 541-545.	0.1	1
89	Linear Analysis and Nonlinear Evolution of Two-Dimensional Global Magnetohydrodynamic Instabilities in a Diffusive Tachocline. <i>Astrophysical Journal</i> , 2004, 610, 597-615.	4.5	37
90	Mode Conversion of Solar p Modes in non-Vertical Magnetic Fields – i. two-Dimensional Model. <i>Solar Physics</i> , 2003, 214, 201-226.	2.5	51

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91	Coronal Leaky Tube Waves and Oscillations Observed with Trace. <i>Solar Physics</i> , 2003, 217, 95-108.	2.5	40
92	Probing sunspot magnetic fields with p-mode absorption and phase shift data. <i>Monthly Notices of the Royal Astronomical Society</i> , 2003, 346, 381-389.	4.4	84
93	Three-dimensional magneto-shear instabilities in the solar tachocline. <i>Monthly Notices of the Royal Astronomical Society</i> , 2003, 339, 957-972.	4.4	46
94	Clamshell and Tipping Instabilities in a Two-dimensional Magnetohydrodynamic Tachocline. <i>Astrophysical Journal</i> , 2003, 582, 1190-1205.	4.5	70
95	A comparison between model calculations and observations of sunspot oscillations. <i>Astronomy and Astrophysics</i> , 2003, 410, 1023-1028.	5.1	14
96	Frequency Dependent Ray Paths in Local Helioseismology. <i>Publications of the Astronomical Society of Australia</i> , 2001, 18, 243-251.	3.4	15
97	Note on an Exact Solution for Magnetoatmospheric Waves. <i>Astrophysical Journal</i> , 2001, 548, 473-481.	4.5	70
98	Numerical Solutions of Three-Dimensional Pressure-Bounded Magnetohydrostatic Flux Tubes. <i>Solar Physics</i> , 2001, 201, 289-304.	2.5	2
99	Nonlinear Evolution of 2d Tachocline Instabilities. , 2001, 199, 231-249.		42
100	An Observational Manifestation of Magnetoatmospheric Waves in Internetwork Regions of the Chromosphere and Transition Region. <i>Astrophysical Journal</i> , 2001, 548, L237-L241.	4.5	45
101	Modelling p-Mode Interaction with a Spreading Sunspot Field. <i>Solar Physics</i> , 2000, 192, 395-401.	2.5	48
102	Mode Mixing by a Shallow Sunspot. <i>Solar Physics</i> , 2000, 193, 373-382.	2.5	7
103	A Sufficient Condition for Instability in a Sheared Incompressible Magnetofluid. <i>Solar Physics</i> , 2000, 194, 189-196.	2.5	11
104	The Contribution by Thin Magnetic Flux Tubes to p-Mode Line Widths. <i>Astrophysical Journal</i> , 1999, 521, 878-884.	4.5	10
105	Velocity and Magnetic Field Fluctuations in the Photosphere of a Sunspot. <i>Astrophysical Journal</i> , 1998, 497, 464-482.	4.5	88
106	A modal view of oscillations in inhomogeneous compressible MHD. <i>Journal of Plasma Physics</i> , 1997, 57, 591-609.	2.1	9
107	Waves in magnetized polytropes. <i>Proceedings of the Royal Society A: Mathematical, Physical and Engineering Sciences</i> , 1997, 453, 943-961.	2.1	38
108	Simulation of f- and p-Mode Interactions with a Stratified Magnetic Field Concentration. <i>Astrophysical Journal</i> , 1997, 486, L67-L70.	4.5	79

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109	Driven Acoustic Oscillations within a Vertical Magnetic Field. <i>Astrophysical Journal</i> , 1996, 459, 760.	4.5	8
110	Absorption of p-Modes by Slender Magnetic Flux Tubes and p-Mode Lifetimes. <i>Astrophysical Journal</i> , 1996, 465, 406.	4.5	73
111	Coupling of magnetospheric cavity modes to field line resonances: A study of resonance widths. <i>Journal of Geophysical Research</i> , 1995, 100, 19441.	3.3	108
112	Effects of Weak-to-Moderate Vertical Magnetic Fields on Solar f- and p-Modes. <i>Astrophysical Journal</i> , 1995, 451, 372.	4.5	28
113	Jacket Modes: Solar Acoustic Oscillations Confined to Regions Surrounding Sunspots and Plage. <i>Astrophysical Journal</i> , 1995, 453, 919.	4.5	40
114	A Fourier-space description of oscillations in an inhomogeneous plasma. Part 1. Continuous Fourier transformation. <i>Journal of Plasma Physics</i> , 1994, 52, 245-264.	2.1	8
115	A Fourier-space description of oscillations in an inhomogeneous plasma. Part 2. Discrete approach. <i>Journal of Plasma Physics</i> , 1994, 52, 265-296.	2.1	11
116	Umbral oscillations in sunspots: Absorption of p-modes and active region heating by mode conversion. <i>Astrophysical Journal</i> , 1994, 437, 505.	4.5	93
117	Solar p-modes in a vertical magnetic field - Trapped and damped pi-modes. <i>Astrophysical Journal</i> , 1993, 402, 721.	4.5	91
118	Phase mixing and surface-wave decay in an inhomogeneous plasma. <i>Journal of Plasma Physics</i> , 1992, 48, 145-158.	2.1	7
119	Resonant structures within incompressible ideal MHD. <i>Journal of Plasma Physics</i> , 1992, 47, 321-347.	2.1	4
120	Steady and nonsteady siphon flow in hot coronal loops. <i>Astrophysical Journal</i> , 1992, 397, 329.	4.5	15
121	Phase-mixing and surface waves: a new interpretation. <i>Journal of Plasma Physics</i> , 1991, 45, 453-479.	2.1	48
122	An inverse coordinate multigrid method for free boundary magnetohydrostatics. <i>Journal of Computational Physics</i> , 1991, 93, 411-425.	3.8	12
123	Why Heating is Not Necessary in the Transition Region or Upper Chromosphere. , 1991, , 103-108.		2
124	Stability, structure, and evolution of cool loops. <i>Astrophysical Journal</i> , 1991, 372, 329.	4.5	21
125	Force and energy balance in the transition region network. <i>Solar Physics</i> , 1990, 126, 69-88.	2.5	18
126	Turbulent thermal conduction in the solar transition region. <i>Astrophysical Journal</i> , 1990, 355, 693.	4.5	27



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127	Magnetohydrodynamic tube waves and high speed solar wind streams. Solar Physics, 1987, 108, 183-189.	2.5	8
128	Leaky and non-leaky oscillations in magnetic flux tubes. Solar Physics, 1986, 103, 277-298.	2.5	184
129	Magnetohydrodynamic Tube Waves: Waves in Fibrils. Australian Journal of Physics, 1985, 38, 825.	0.6	24
130	Chromospheric and coronal Alfvénic oscillations in non-vertical magnetic fields. Solar Physics, 1984, 92, 81-98.	2.5	31
131	On photospheric and chromospheric penumbral waves. Solar Physics, 1983, 85, 97-111.	2.5	7
132	Umbral oscillations in the presence of a spreading magnetic field. Solar Physics, 1983, 88, 77.	2.5	26
133	Complex eigenvalue bounds in magnetoatmospheric shear flow. II. Geophysical and Astrophysical Fluid Dynamics, 1983, 23, 57-67.	1.2	7
134	Complex eigenvalue bounds in magnetoatmospheric shear flow. I. Geophysical and Astrophysical Fluid Dynamics, 1983, 23, 43-55.	1.2	8
135	Statistical mechanics and the gravothermal catastrophe. Journal of Mathematical Physics, 1981, 22, 348-351.	1.1	6
136	The Equilibrium Statistical Mechanics of Self-gravitating Systems. Australian Journal of Physics, 1981, 34, 267.	0.6	1