Steven Tomczyk

List of Publications by Year
in descending order

64	6,410	186265 28	128289 60
papers	citations	h-index	g-index

65	65	65	2444
all docs	docs citations	times ranked	citing authors

#	Article	IF	Citations
1	The Helioseismic and Magnetic Imager (HMI) Investigation for the Solar Dynamics Observatory (SDO). Solar Physics, 2012, 275, 207-227.	2.5	1,677
2	Design and Ground Calibration of the Helioseismic and Magnetic Imager (HMI) Instrument on the Solar Dynamics Observatory (SDO). Solar Physics, 2012, 275, 229-259.	2.5	1,463
3	Alfvèn Waves in the Solar Corona. Science, 2007, 317, 1192-1196.	12.6	673
4	VFISV: Very Fast Inversion of the Stokes Vector for the Helioseismic and Magnetic Imager. Solar Physics, 2011, 273, 267-293.	2.5	261
5	TIME-DISTANCE SEISMOLOGY OF THE SOLAR CORONA WITH CoMP. Astrophysical Journal, 2009, 697, 1384-1391.	4.5	242
6	A New Precise Measurement of the Coronal Magnetic Field Strength. Astrophysical Journal, 2000, 541, L83-L86.	4.5	194
7	An Instrument to Measure Coronal Emission Line Polarization. Solar Physics, 2008, 247, 411-428.	2.5	191
8	Magnetic Maps of Prominences from Full Stokes Analysis of the He i D3 Line. Astrophysical Journal, 2003, 598, L67-L70.	4.5	146
9	The Solar Acoustic Spectrum and Eigenmode Parameters. Science, 1996, 272, 1292-1295.	12.6	131
10	An instrument to observe low-degree solar oscillations. Solar Physics, 1995, 159, 1-21.	2.5	116
11	Spectral Line Selection for HMI: A Comparison of Fe I 6173 Ã... and Ni I 6768 Ã.... Solar Physics, 2006, 239, 69-91.	2.5	109
12	Solar internal sound speed as inferred from combined BiSON and LOWL oscillation frequencies. Monthly Notices of the Royal Astronomical Society, 1997, 292, 243-251.	4.4	101
13	Global maps of the magnetic field in the solar corona. Science, 2020, 369, 694-697.	12.6	92
14	Spinor: Visible and Infrared Spectro-Polarimetry at the National Solar Observatory. Solar Physics, 2006, 235, 55-73.	2.5	73
15	Rotation of the solar core from BiSON and LOWL frequency observations. Monthly Notices of the Royal Astronomical Society, 1999, 308, 405-414.	4.4	68
16	A GLOBAL VIEW OF VELOCITY FLUCTUATIONS IN THE CORONA BELOW 1.3 R_{âŠ™} WITH CoMP. Astrophysical Journal, 2016, 828, 89.	4.5	64
17	A RING OF POLARIZED LIGHT: EVIDENCE FOR TWISTED CORONAL MAGNETISM IN CAVITIES. Astrophysical Journal Letters, 2011, 731, L1.	8.3	57
18	The Rotation of the Solar Core Inferred by Genetic Forward Modeling. Astrophysical Journal, 1998, 496, 1015-1030.	4.5	55

#	Article	IF	Citations
19	Depth and latitude dependence of the solar internal angular velocity. Astrophysical Journal, 1990, 351, 687.	4.5	54
20	Mapping the magnetic field in the solar corona through magnetoseismology. Science China Technological Sciences, 2020, 63, 2357-2368.	4.0	41
21	Scientific objectives and capabilities of the Coronal Solar Magnetism Observatory. Journal of Geophysical Research: Space Physics, 2016, 121, 7470-7487.	2.4	40
22	The Sun's Hydrostatic Structure from LOWL Data. Astrophysical Journal, 1996, 460, 1064.	4.5	39
23	LARGE-SCALE FLOWS IN PROMINENCE CAVITIES. Astrophysical Journal, 2009, 700, L96-L98.	4.5	36
24	Wavelength-diverse polarization modulators for Stokes polarimetry. Applied Optics, 2010, 49, 3580.	2.1	36
25	Solar magnetism eXplorer (SolmeX). Experimental Astronomy, 2012, 33, 271-303.	3.7	34
26	Coronal plasma diagnostics from groundâ€based observations. Journal of Geophysical Research: Space Physics, 2016, 121, 8237-8249.	2.4	31
27	Hyperfine Structure as a Diagnostic of Solar Magnetic Fields. Astrophysical Journal, 2002, 580, 519-527.	4.5	29
28	A Coherence-Based Approach for Tracking Waves inÂtheÂSolar Corona. Solar Physics, 2008, 252, 321-348.	2.5	29
29	Observations of Coronal Mass Ejections with the Coronal Multichannel Polarimeter. Solar Physics, 2013, 288, 637-650.	2.5	28
30	Full Stokes Spectropolarimetry of HÎ± in Prominences. Astrophysical Journal, 2005, 621, L145-L148.	4.5	23
31	Magnetic Field Vector Retrieval With the Helioseismic and Magnetic Imager. Solar Physics, 2007, 240, 177-196.	2.5	22
32	Stray light and polarimetry considerations for the COSMO K-Coronagraph. Proceedings of SPIE, 2012, , .	0.8	22
33	Magnetic Nulls and Super-radial Expansion in the Solar Corona. Astrophysical Journal Letters, 2017, 840, L13.	8.3	22
34	Spectroscopic Detection of the 3.934 Micron Line of S[CLC]i[/CLC] [CSC]ix[/CSC] in the Solar Corona. Astrophysical Journal, 2002, 576, L157-L160.	4.5	19
35	On the constancy of intermediate-degree p-mode frequencies during the declining phase of solar cycle 21. Astrophysical Journal, 1988, 326, 479.	4.5	18
36	DESIGN AND MEASUREMENT OF THE STOKES POLARIMETER FOR THE COSMO K-CORONAGRAPH. Astrophysical Journal, 2013, 774, 85.	4.5	16

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37	DIRECT OBSERVATION OF SOLAR CORONAL MAGNETIC FIELDS BY VECTOR TOMOGRAPHY OF THE CORONAL EMISSION LINE POLARIZATIONS. Astrophysical Journal Letters, 2016, 819, L36.	8.3	16
38	Inference of Solar Magnetic Field Parameters from Data with Limited Wavelength Sampling. Solar Physics, 2002, 208, 211-232.	2.5	15
39	Stokes Profile Asymmetries in Solar Active Regions. Astrophysical Journal, 1997, 482, 1065-1075.	4.5	14
40	Background-Induced Measurement Errors of the Coronal Intensity, Density, Velocity, and Magnetic Field. Solar Physics, 2004, 222, 61-78.	2.5	13
41	The Eruption of a Prominence-carrying Coronal Flux Rope: Forward Synthesis of the Magnetic Field Strength Measurement by the COronal Solar Magnetism Observatory Large Coronagraph. Astrophysical Journal, 2018, 866, 57.	4.5	10
42	Solar Eclipse Observations from the Ground and Air from 0.31 to 5.5 Microns. Solar Physics, 2019, 294, 1.	2.5	10
43	The feasibility of large refracting telescopes for solar coronal research. Proceedings of SPIE, 2008, , .	0.8	8
44	The polychromatic polarization modulator. , 2010, , .		8
45	Turbulence and Heating in the Flank and Wake Regions of a Coronal Mass Ejection. Solar Physics, 2018, 293, 1.	2.5	7
46	Electron Densities in the Solar Corona Measured Simultaneously in the Extreme Ultraviolet and Infrared. Astrophysical Journal, 2021, 906, 118.	4.5	7
47	A compact dopplergraph/magnetograph suitable for space-based measurements of solar oscillations and magnetic fields. Advances in Space Research, 1984, 4, 103-112.	2.6	5
48	A new spectro-polarimeter for solar prominence and filament magnetic field measurements. Proceedings of SPIE, 2008, , .	0.8	5
49	Optical design of the COSMO large coronagraph. Proceedings of SPIE, 2012, , .	0.8	5
50	Development of a tunable filter for coronal polarimetry. Journal of Geophysical Research: Space Physics, 2016, 121, 6184-6195.	2.4	5
51	High-cadence Visible and Infrared Spectra of the Sun during Eclipse. Astrophysical Journal, 2019, 877, 10.	4.5	5
52	Magneto-optic Doppler analyzer: a new instrument to measure mesopause winds. Applied Optics, 1996, 35, 6494.	2.1	4
53	Waves and Magnetism in the Solar Atmosphere (WAMIS). Frontiers in Astronomy and Space Sciences, 2016, 3, .	2.8	4
54	The COSMO coronagraph optical design and stray light analysis. Proceedings of SPIE, 2016, , .	0.8	4

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55	The chromosphere and prominence magnetometer. Proceedings of SPIE, 2012, , .	0.8	3
56	A One-Megapixel Image Acquisition And Processing System For Solar Oscillation Studies. Proceedings of SPIE, 1986, , .	0.8	2
57	<title>Calibration procedure for the polarimetric instrument for Solar Eclipse-98</title>. , 2000, , .		2
58	Coronal Multi-channel Polarimeter at the Lomnicky Peak Observatory. Proceedings of the International Astronomical Union, 2013, 8, 521-522.	0.0	1
59	The Coronal Solar Magnetism Observatory. Proceedings of the International Astronomical Union, 2017, 13, 359-361.	0.0	1
60	Experimental Testing of Scattering Polarization Models. Astrophysical Journal Letters, 2018, 867, L22.	8.3	1
61	A New Facility for Airborne Solar Astronomy: NASAâ€™s WB-57 at the 2017 Total Solar Eclipse. Astrophysical Journal, 2020, 895, 131.	4.5	1
62	Full-Disk solar Dopplergrams observed with a 1024 Ã— 1024-Pixel CCD Camera. Symposium - International Astronomical Union, 1988, 123, 471-474.	0.1	0
63	Polarimeter for the study of magnetic fields in prominences. , 2003, 4853, 235.		0
64	Waves and Magnetism in the Solar Atmosphere (WAMIS). Proceedings of the International Astronomical Union, 2014, 10, 121-126.	0.0	0