

Jiri Stepan

List of Publications by Year in descending order

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papers

579
citations

566801

15
h-index

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docs citations

28
times ranked

224
citing authors

#	ARTICLE	IF	CITATIONS
1	PORTA: A three-dimensional multilevel radiative transfer code for modeling the intensity and polarization of spectral lines with massively parallel computers. <i>Astronomy and Astrophysics</i> , 2013, 557, A143.	2.1	56
2	THE HANLE EFFECT OF THE HYDROGEN Ly \pm LINE FOR PROBING THE MAGNETISM OF THE SOLAR TRANSITION REGION. <i>Astrophysical Journal Letters</i> , 2011, 738, L11.	3.0	51
3	Discovery of Scattering Polarization in the Hydrogen Ly \pm Line of the Solar Disk Radiation. <i>Astrophysical Journal Letters</i> , 2017, 839, L10.	3.0	49
4	THREE-DIMENSIONAL RADIATIVE TRANSFER SIMULATIONS OF THE SCATTERING POLARIZATION OF THE HYDROGEN LY \pm LINE IN A MAGNETOHYDRODYNAMIC MODEL OF THE CHROMOSPHERE-CORONA TRANSITION REGION. <i>Astrophysical Journal</i> , 2015, 803, 65.	1.6	44
5	Mapping solar magnetic fields from the photosphere to the base of the corona. <i>Science Advances</i> , 2021, 7, .	4.7	42
6	THE SCATTERING POLARIZATION OF THE Ly \pm LINES OF H I AND He II TAKING INTO ACCOUNT PARTIAL FREQUENCY REDISTRIBUTION AND π -STATE INTERFERENCE EFFECTS. <i>Astrophysical Journal Letters</i> , 2012, 755, L2.	3.0	36
7	A Novel Investigation of the Small-scale Magnetic Activity of the Quiet Sun via the Hanle Effect in the Sr i 4607 Å... Line. <i>Astrophysical Journal</i> , 2018, 863, 164.	1.6	36
8	THE HANLE AND ZEEMAN POLARIZATION SIGNALS OF THE SOLAR Ca II 8542 Å... LINE. <i>Astrophysical Journal Letters</i> , 2016, 826, L10.	3.0	32
9	CLASP Constraints on the Magnetization and Geometrical Complexity of the Chromosphere-Corona Transition Region. <i>Astrophysical Journal Letters</i> , 2018, 866, L15.	3.0	24
10	THE Ly \pm LINES OF H I AND He II: A DIFFERENTIAL HANLE EFFECT FOR EXPLORING THE MAGNETISM OF THE SOLAR TRANSITION REGION. <i>Astrophysical Journal Letters</i> , 2012, 746, L9.	3.0	23
11	THE HANLE EFFECT OF Ly \pm IN A MAGNETOHYDRODYNAMIC MODEL OF THE SOLAR TRANSITION REGION. <i>Astrophysical Journal Letters</i> , 2012, 758, L43.	3.0	22
12	DISCOVERY OF UBIQUITOUS FAST-PROPAGATING INTENSITY DISTURBANCES BY THE CHROMOSPHERIC LYMAN ALPHA SPECTROPOLARIMETER (CLASP). <i>Astrophysical Journal</i> , 2016, 832, 141.	1.6	22
13	Indication of the Hanle Effect by Comparing the Scattering Polarization Observed by CLASP in the Ly \pm and Si λ 120.65Ånm Lines. <i>Astrophysical Journal</i> , 2017, 841, 31.	1.6	19
14	SCATTERING POLARIZATION OF HYDROGEN LINES IN WEAKLY MAGNETIZED STELLAR ATMOSPHERES. I. FORMULATION AND APPLICATION TO ISOTHERMAL MODELS. <i>Astrophysical Journal</i> , 2011, 732, 80.	1.6	15
15	ON THE INVERSION OF THE SCATTERING POLARIZATION AND THE HANLE EFFECT SIGNALS IN THE HYDROGEN Ly \pm LINE. <i>Astrophysical Journal</i> , 2014, 787, 159.	1.6	15
16	Chromospheric Layer Spectropolarimeter (CLASP2). <i>Proceedings of SPIE</i> , 2016, , .	0.8	15
17	ON THE PROBABLE EXISTENCE OF AN ABRUPT MAGNETIZATION IN THE UPPER CHROMOSPHERE OF THE QUIET SUN. <i>Astrophysical Journal Letters</i> , 2010, 711, L133-L137.	3.0	12
18	Hydrogen H \pm line polarization in solar flares. <i>Astronomy and Astrophysics</i> , 2007, 465, 621-631.	2.1	12

#	ARTICLE	IF	CITATIONS
19	SCATTERING POLARIZATION IN SOLAR FLARES. <i>Astrophysical Journal Letters</i> , 2013, 778, L6.	3.0	8
20	Polarization Calibration of the Chromospheric Lyman-Alpha SpectroPolarimeter for a 0.1% Polarization Sensitivity in the VUV Range. Part II: In-Flight Calibration. <i>Solar Physics</i> , 2017, 292, 1.	1.0	8
21	Hydrogen Balmer line formation in solar flares affected by return currents. <i>Astronomy and Astrophysics</i> , 2007, 472, L55-L58.	2.1	8
22	Near optimal angular quadratures for polarised radiative transfer. <i>Astronomy and Astrophysics</i> , 2020, 636, A24.	2.1	7
23	A generalized $\sqrt{\epsilon}$ -law. <i>Astronomy and Astrophysics</i> , 2007, 468, 797-801.	2.1	6
24	Comparison of theoretical and observed Ca II 8542 Stokes profiles in quiet regions at the centre of the solar disc. <i>Astronomy and Astrophysics</i> , 2018, 619, A60.	2.1	5
25	Overview of Chromospheric Lyman-Alpha SpectroPolarimeter (CLASP). <i>Proceedings of SPIE</i> , 2011, , .	0.8	4
26	Improved near optimal angular quadratures for polarised radiative transfer in 3D MHD models. <i>Astronomy and Astrophysics</i> , 2021, 645, A101.	2.1	4
27	A Statistical Inference Method for Interpreting the CLASP Observations. <i>Astrophysical Journal</i> , 2018, 865, 48.	1.6	3
28	Evaluating the Reliability of a Simple Method to Map the Magnetic Field Azimuth in the Solar Chromosphere. <i>Astrophysical Journal</i> , 2021, 911, 23.	1.6	1