Jiri Stepan

List of Publications by Year in descending order

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IIDI STEDAN

#	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. Astronomy and Astrophysics, 2013, 557, A143.	5.1	56
2	THE HANLE EFFECT OF THE HYDROGEN Lyα LINE FOR PROBING THE MAGNETISM OF THE SOLAR TRANSITION REGION. Astrophysical Journal Letters, 2011, 738, L11.	8.3	51
3	Discovery of Scattering Polarization in the Hydrogen Lyα Line of the Solar Disk Radiation. Astrophysical Journal Letters, 2017, 839, L10.	8.3	49
4	THREE-DIMENSIONAL RADIATIVE TRANSFER SIMULATIONS OF THE SCATTERING POLARIZATION OF THE HYDROGEN LY <i>α</i> LINE IN A MAGNETOHYDRODYNAMIC MODEL OF THE CHROMOSPHERE–CORONA TRANSITION REGION. Astrophysical Journal, 2015, 803, 65.	4.5	44
5	Mapping solar magnetic fields from the photosphere to the base of the corona. Science Advances, 2021, 7, .	10.3	42
6	THE SCATTERING POLARIZATION OF THE LyÎ \pm LINES OF H I AND He II TAKING INTO ACCOUNT PARTIAL FREQUENCY REDISTRIBUTION AND <i>J</i> -STATE INTERFERENCE EFFECTS. Astrophysical Journal Letters, 2012, 755, L2.	8.3	36
7	A Novel Investigation of the Small-scale Magnetic Activity of the Quiet Sun via the Hanle Effect in the Sr i 4607 Ã Line. Astrophysical Journal, 2018, 863, 164.	4.5	36
8	THE HANLE AND ZEEMAN POLARIZATION SIGNALS OF THE SOLAR Ca II 8542 Ã LINE. Astrophysical Journal Letters, 2016, 826, L10.	8.3	32
9	CLASP Constraints on the Magnetization and Geometrical Complexity of the Chromosphere-Corona Transition Region. Astrophysical Journal Letters, 2018, 866, L15.	8.3	24
10	THE Lyα LINES OF H I AND He II: A DIFFERENTIAL HANLE EFFECT FOR EXPLORING THE MAGNETISM OF THE SOLAF TRANSITION REGION. Astrophysical Journal Letters, 2012, 746, L9.	8.3	23
11	THE HANLE EFFECT OF LyÎ \pm IN A MAGNETOHYDRODYNAMIC MODEL OF THE SOLAR TRANSITION REGION. Astrophysical Journal Letters, 2012, 758, L43.	8.3	22
12	DISCOVERY OF UBIQUITOUS FAST-PROPAGATING INTENSITY DISTURBANCES BY THE CHROMOSPHERIC LYMAN ALPHA SPECTROPOLARIMETER (CLASP). Astrophysical Journal, 2016, 832, 141.	4.5	22
13	Indication of the Hanle Effect by Comparing the Scattering Polarization Observed by CLASP in the Lyα and SiÂiii 120.65Ânm Lines. Astrophysical Journal, 2017, 841, 31.	4.5	19
14	SCATTERING POLARIZATION OF HYDROGEN LINES IN WEAKLY MAGNETIZED STELLAR ATMOSPHERES. I. FORMULATION AND APPLICATION TO ISOTHERMAL MODELS. Astrophysical Journal, 2011, 732, 80.	4.5	15
15	ON THE INVERSION OF THE SCATTERING POLARIZATION AND THE HANLE EFFECT SIGNALS IN THE HYDROGEN Ly $\hat{1}\pm$ LINE. Astrophysical Journal, 2014, 787, 159.	4.5	15
16	Chromospheric LAyer SpectroPolarimeter (CLASP2). Proceedings of SPIE, 2016, , .	0.8	15
17	ON THE PROBABLE EXISTENCE OF AN ABRUPT MAGNETIZATION IN THE UPPER CHROMOSPHERE OF THE QUIET SUN. Astrophysical Journal Letters, 2010, 711, L133-L137.	8.3	12
18	Hydrogen HÎ \pm line polarization in solar flares. Astronomy and Astrophysics, 2007, 465, 621-631.	5.1	12

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#	Article	IF	CITATIONS
19	SCATTERING POLARIZATION IN SOLAR FLARES. Astrophysical Journal Letters, 2013, 778, L6.	8.3	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. Solar Physics, 2017, 292, 1.	2.5	8
21	Hydrogen Balmer line formation in solar flares affected by return currents. Astronomy and Astrophysics, 2007, 472, L55-L58.	5.1	8
22	Near optimal angular quadratures for polarised radiative transfer. Astronomy and Astrophysics, 2020, 636, A24.	5.1	7
23	A generalized \$sqrt{epsilon}\$-law. Astronomy and Astrophysics, 2007, 468, 797-801.	5.1	6
24	Comparison of theoretical and observed Caâ€II 8542 Stokes profiles in quiet regions at the centre of the solar disc. Astronomy and Astrophysics, 2018, 619, A60.	5.1	5
25	Overview of Chromospheric Lyman-Alpha SpectroPolarimeter (CLASP). Proceedings of SPIE, 2011, , .	0.8	4
26	Improved near optimal angular quadratures for polarised radiative transfer in 3D MHD models. Astronomy and Astrophysics, 2021, 645, A101.	5.1	4
27	A Statistical Inference Method for Interpreting the CLASP Observations. Astrophysical Journal, 2018, 865, 48.	4.5	3
28	Evaluating the Reliability of a Simple Method to Map the Magnetic Field Azimuth in the Solar Chromosphere. Astrophysical Journal, 2021, 911, 23.	4.5	1