Horst Balthasar

List of Publications by Year
in descending order

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55 papers	1,056 citations	471509 17 h-index	434195 31 g-index
55 all docs	55 docs citations	55 times ranked	491 citing authors

#	Article	IF	Citations
1	Observational evidence for two-component distributions describing solar magnetic bright points. Astronomy and Astrophysics, 2022, 657, A79.	5.1	8
2	Multiple Stokes I inversions for inferring magnetic fields in the spectral range around Crâ€¯I 5782 Ã…. Astronomy and Astrophysics, 2021, 653, A165.	5.1	6
3	Classification of High-resolution Solar HÎ± Spectra Using t-distributed Stochastic Neighbor Embedding. Astrophysical Journal, 2021, 907, 54.	4.5	10
4	Velocity Difference of Ions and Neutrals in Solar Prominences. Astrophysical Journal, 2021, 920, 47.	4.5	6
5	High-resolution spectroscopy of a surge in an emerging flux region. Astronomy and Astrophysics, 2020, 639, A19.	5.1	7
6	Observational study of chromospheric heating by acoustic waves. Astronomy and Astrophysics, 2020, 642, A52.	5.1	19
7	High-resolution Spectroscopy of an Erupting Minifilament and Its Impact on the Nearby Chromosphere. Astrophysical Journal, 2020, 898, 144.	4.5	5
8	The magnetic structure and dynamics of a decaying active region. Proceedings of the International Astronomical Union, 2019, 15, 53-57.	0.0	0
9	Revisiting the building blocks of solar magnetic fields by GREGOR. Proceedings of the International Astronomical Union, 2019, 15, 38-41.	0.0	0
10	Coordinated observations between China and Europe to follow active region 12709. Proceedings of the International Astronomical Union, 2019, 15, 58-61.	0.0	0
11	Image Quality in High-resolution and High-cadence Solar Imaging. Solar Physics, 2018, 293, 1.	2.5	14
12	Properties of the inner penumbral boundary and temporal evolution of a decaying sunspot. Astronomy and Astrophysics, 2018, 620, A191.	5.1	17
13	Temporal evolution of arch filaments as seen in Heâ€¯I 10 830 Ã…. Astronomy and Astrophysics, 2018, 617, A55.	5.1	14
14	The Problem of the Height Dependence of Magnetic Fields in Sunspots. Solar Physics, 2018, 293, 1.	2.5	14
15	High-cadence Imaging and Imaging Spectroscopy at the GREGOR Solar Telescopeâ€”A Collaborative Research Environment for High-resolution Solar Physics. Astrophysical Journal, Supplement Series, 2018, 236, 5.	7.7	11
16	High-resolution imaging and near-infrared spectroscopy of penumbral decay. Astronomy and Astrophysics, 2018, 614, A2.	5.1	14
17	Ca II 8542â€‰Ã… brightenings induced by a solar microflare. Astronomy and Astrophysics, 2017, 608, A117.	5.1	4
18	Solar physics at the Einstein Tower. Astronomische Nachrichten, 2016, 337, 1105-1113.	1.2	1

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19	Horizontal flow fields in and around a small active region. Astronomy and Astrophysics, 2016, 596, A3.	5.1	13
20	Magnetic fields of opposite polarity in sunspot penumbrae. Astronomy and Astrophysics, 2016, 596, A4.	5.1	21
21	Active region fine structure observed at 0.08 arcsec resolution. Astronomy and Astrophysics, 2016, 596, A7.	5.1	23
22	Spectropolarimetric observations of an arch filament system with the GREGOR solar telescope. Astronomische Nachrichten, 2016, 337, 1050-1056.	1.2	9
23	Inference of magnetic fields in the very quiet Sun. Astronomy and Astrophysics, 2016, 596, A5.	5.1	24
24	Upper chromospheric magnetic field of a sunspot penumbra: observations of fine structure. Astronomy and Astrophysics, 2016, 596, A8.	5.1	20
25	Three-dimensional structure of a sunspot light bridge. Astronomy and Astrophysics, 2016, 596, A59.	5.1	41
26	sTools â€“ a data reduction pipeline for the GREGOR Fabry-PÃ©rot Interferometer and the High-resolution Fast Imager at the GREGOR solar telescope. Proceedings of the International Astronomical Union, 2016, 12, 20-24.	0.0	7
27	Near-infrared spectropolarimetry of aÎ´-spot. Astronomy and Astrophysics, 2014, 562, L6.	5.1	7
28	The 1.5 meter solar telescope GREGOR. Astronomische Nachrichten, 2012, 333, 796-809.	1.2	131
29	A retrospective of the GREGOR solar telescope in scientific literature. Astronomische Nachrichten, 2012, 333, 810-815.	1.2	8
30	The GREGOR Fabryâ€PÃ©rot Interferometer. Astronomische Nachrichten, 2012, 333, 880-893.	1.2	46
31	Horizontal flow fields observed in Hinode G-band images. Astronomy and Astrophysics, 2012, 538, A109.	5.1	31
32	Spectral Inversion of Multiline Full-Disk Observations of Quiet Sun Magnetic Fields. Solar Physics, 2012, 280, 355-364.	2.5	9
33	On Multi-Line Spectro-Polarimetric Diagnostics of the Quiet Sunâ€™s Magnetic Fields. Solar Physics, 2012, 276, 43-59.	2.5	13
34	The GREGOR Fabry-Perot interferometer: a new instrument for high-resolution solar observations. Proceedings of SPIE, 2010, , .	0.8	16
35	GREGOR solar telescope: Design and status. Astronomische Nachrichten, 2010, 331, 624-627.	1.2	13
36	Spectro-Polarimetric Observations of Solar Magnetic Fields and the SOHO/MDI Calibration Issue. Solar Physics, 2009, 260, 261-270.	2.5	23

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37	Comparison of Solar Magnetic Fields Measured atÂDifferent Observatories: Peculiar Strength Ratio Distributions Across the Disk. Solar Physics, 2008, 250, 279-301.	2.5	21
38	The three-dimensional structure of the magnetic field of a sunspot. Proceedings of the International Astronomical Union, 2008, 4, 225-226.	0.0	0
39	A full-Stokes polarimeter for the GREGOR Fabry-Perot interferometer. Proceedings of the International Astronomical Union, 2008, 4, 665-666.	0.0	8
40	The three-dimensional structure of sunspots. Astronomy and Astrophysics, 2008, 488, 1085-1092.	5.1	21
41	Rotational periodicities in sunspot relative numbers. Astronomy and Astrophysics, 2007, 471, 281-287.	5.1	18
42	Vertical current densities and magnetic gradients in sunspots. Astronomy and Astrophysics, 2006, 449, 1169-1176.	5.1	17
43	Some properties of an isolated sunspot. Astronomy and Astrophysics, 2005, 429, 705-711.	5.1	17
44	Two magnetic components in sunspot penumbrae. Astronomy and Astrophysics, 2004, 427, 319-334.	5.1	122
45	Oscillations in Sunspots observed in the Near Infrared. Solar Physics, 2003, 218, 85-97.	2.5	15
46	The structure of the penumbra. Astronomische Nachrichten, 2003, 324, 390-390.	1.2	0
47	Field-aligned Evershed flows in the photosphere of a sunspot penumbra. Astronomy and Astrophysics, 2003, 403, L47-L50.	5.1	73
48	Penumbral finestructure: need for larger telescopes. Astronomische Nachrichten, 2001, 322, 367-370.	1.2	6
49	Oscillations in a solar pore. Astronomische Nachrichten, 2000, 321, 121-127.	1.2	8
50	Oscillations in a solar pore. , 2000, 321, 121.		2
51	Temporal fluctuations of the magnetic field in sunspots. Solar Physics, 1999, 187, 389-403.	2.5	23
52	Velocity Oscillations in Active Sunspot Groups. Solar Physics, 1998, 182, 65-72.	2.5	15
53	The Solar granulation in different heights. Astronomische Nachrichten, 1998, 319, 387-390.	1.2	2
54	On the contribution of horizontal granular motions to observed limb-effect curves. Solar Physics, 1985, 99, 31-38.	2.5	28

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55	Asymmetries and wavelengths of solar spectral lines and the solar rotation determined from Fourier-transform spectra. Solar Physics, 1984, 93, 219-241.	2.5	55