

# Jan Stenflo

## List of Publications by Year in descending order

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84  
papers

2,967  
citations

201674

27  
h-index

168389

53  
g-index

85  
all docs

85  
docs citations

85  
times ranked

861  
citing authors

#	ARTICLE	IF	CITATIONS
1	Cosmological constant caused by observer-induced boundary condition. Journal of Physics Communications, 2020, 4, 105001.	1.2	3
2	Importance of Angle-dependent Partial Frequency Redistribution in Hyperfine Structure Transitions Under the Incomplete Paschen-Back Effect Regime. Astrophysical Journal, 2020, 898, 49.	4.5	6
3	Origin of the cosmological constant. Astrophysics and Space Science, 2019, 364, 1.	1.4	2
4	Polarized Line Formation in Arbitrary Strength Magnetic Fields: The Case of a Two-level Atom with Hyperfine Structure Splitting. Astrophysical Journal, 2019, 883, 188.	4.5	8
5	History of Solar Magnetic Fields Since George Ellery Hale. Space Science Reviews, 2017, 210, 5-35.	8.1	24
6	Polarized Line Formation in Arbitrary Strength Magnetic Fields Angle-averaged and Angle-dependent Partial Frequency Redistribution. Astrophysical Journal, 2017, 844, 97.	4.5	20
7	POLARIZED LINE FORMATION WITH LOWER-LEVEL POLARIZATION AND PARTIAL FREQUENCY REDISTRIBUTION. Astrophysical Journal, 2016, 828, 84.	4.5	1
8	Transition of the Sunspot Number from Zurich to Brussels in 1980: A Personal Perspective. Solar Physics, 2016, 291, 2487-2492.	2.5	7
9	POLARIZED SCATTERING OF LIGHT FOR ARBITRARY MAGNETIC FIELDS WITH LEVEL-CROSSINGS FROM THE COMBINATION OF HYPERFINE AND FINE STRUCTURE SPLITTINGS. Astrophysical Journal, 2015, 814, 127.	4.5	5
10	PHYSICS OF POLARIZED SCATTERING AT MULTI-LEVEL ATOMIC SYSTEMS. Astrophysical Journal, 2015, 801, 70.	4.5	8
11	History of Solar Magnetic Fields Since George Ellery Hale. Space Sciences Series of ISSI, 2015, , 5-35.	0.0	2
12	THE QUANTUM INTERFERENCE EFFECTS IN THE SC II 4247 Å... LINE OF THE SECOND SOLAR SPECTRUM. Astrophysical Journal, 2014, 794, 30.	4.5	8
13	CENTER-TO-LIMB OBSERVATIONS AND MODELING OF THE Ca I 4227 Å... LINE. Astrophysical Journal, 2014, 793, 42.	4.5	22
14	POLARIZED SCATTERING WITH PASCHEN-BACK EFFECT, HYPERFINE STRUCTURE, AND PARTIAL FREQUENCY REDISTRIBUTION IN MAGNETIZED STELLAR ATMOSPHERES. Astrophysical Journal, 2014, 786, 150.	4.5	11
15	POLARIZED LIGHT SCATTERING WITH THE PASCHEN-BACK EFFECT, LEVEL-CROSSING OF FINE STRUCTURE STATES, AND PARTIAL FREQUENCY REDISTRIBUTION. Astrophysical Journal, 2014, 793, 71.	4.5	6
16	Coherence structure of $D_{1\langle/sub\rangle}$ scattering. Proceedings of the International Astronomical Union, 2014, 10, 136-145.	0.0	0
17	Paschen-Back effect involving atomic fine and hyperfine structure states. Proceedings of the International Astronomical Union, 2014, 10, 154-158.	0.0	0
18	Modeling the center-to-limb variation of the Ca i 4227 Å... line using FCHHT models. Proceedings of the International Astronomical Union, 2014, 10, 381-386.	0.0	0

#	ARTICLE	IF	CITATIONS
19	A revisit to model the Cr i triplet at 5204-5208 Å... and the Ba ii D2 line at 4554 Å... in the Second Solar Spectrum. Proceedings of the International Astronomical Union, 2014, 10, 372-376.	0.0	0
20	Solar magnetic fields as revealed by Stokes polarimetry. Astronomy and Astrophysics Review, 2013, 21, 1.	25.5	82
21	MODELING THE QUANTUM INTERFERENCE SIGNATURES OF THE Ba II D <sub>2</sub> 4554 Å... LINE IN THE SECOND SOLAR SPECTRUM. Astrophysical Journal, 2013, 768, 163.	4.5	11
22	LINE-INTERLOCKING EFFECTS ON POLARIZATION IN SPECTRAL LINES BY RAYLEIGH AND RAMAN SCATTERING. Astrophysical Journal, 2013, 770, 92.	4.5	6
23	Calibration of the 6302/6301 Stokes <i>V</i> line ratio in terms of the 5250/5247 ratio. Astronomy and Astrophysics, 2013, 556, A113.	5.1	13
24	Horizontal or vertical magnetic fields on the quiet Sun. Astronomy and Astrophysics, 2013, 555, A132.	5.1	26
25	BIPOLAR MAGNETIC REGIONS ON THE SUN: GLOBAL ANALYSIS OF THE SOHO/MDI DATA SET. Astrophysical Journal, 2012, 745, 129.	4.5	139
26	Nature of the solar dynamo at small scales. Proceedings of the International Astronomical Union, 2012, 8, 119-130.	0.0	0
27	POLARIZED LINE TRANSFER WITH <i>F</i> -STATE INTERFERENCE IN A NON-MAGNETIC MEDIUM: PARTIAL FREQUENCY REDISTRIBUTION EFFECTS IN THE COLLISIONLESS REGIME. Astrophysical Journal, 2012, 758, 112.	4.5	11
28	Basal magnetic flux and the local solar dynamo. Astronomy and Astrophysics, 2012, 547, A93.	5.1	39
29	Scaling laws for magnetic fields on the quiet Sun. Astronomy and Astrophysics, 2012, 541, A17.	5.1	34
30	ANALYSIS OF THE FORWARD-SCATTERING HANLE EFFECT IN THE Ca I 4227 Å... LINE. Astrophysical Journal, 2011, 737, 95.	4.5	29
31	POLARIZED LINE FORMATION WITH <i>J</i> -STATE INTERFERENCE IN THE PRESENCE OF MAGNETIC FIELDS. I. PARTIAL FREQUENCY REDISTRIBUTION IN THE COLLISIONLESS REGIME. Astrophysical Journal, 2011, 733, 4.	4.5	22
32	Observations of the forward scattering Hanle effect in the Ca I 4227 Å... line. Astronomy and Astrophysics, 2011, 530, L13.	5.1	15
33	Collapsed, uncollapsed, and hidden magnetic flux on the quiet Sun. Astronomy and Astrophysics, 2011, 529, A42.	5.1	41
34	GENERALIZATION OF THE LAST SCATTERING APPROXIMATION FOR THE SECOND SOLAR SPECTRUM MODELING: THE Ca I 4227 Å... LINE AS A CASE STUDY. Astrophysical Journal, 2010, 718, 988-1000.	4.5	21
35	Probability distribution functions for the Sun's magnetic field. Astronomische Nachrichten, 2010, 331, 585-588.	1.2	0
36	Distribution functions for magnetic fields on the quiet Sun. Astronomy and Astrophysics, 2010, 517, A37.	5.1	67

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37	Measuring the Hidden Aspects of Solar Magnetism. Thirty Years of Astronomical Discovery With UKIRT, 2010, , 101-117.	0.3	2
38	ORIGIN OF SPATIAL VARIATIONS OF SCATTERING POLARIZATION IN THE WINGS OF THE Ca I 4227 Å... line. Astrophysical Journal, 2009, 699, 1650-1659.	4.5	16
39	Small-Scale Solar Magnetic Fields. Space Science Reviews, 2009, 144, 275.	8.1	128
40	Solar magnetic fields. Journal of Astrophysics and Astronomy, 2008, 29, 19-28.	1.0	30
41	Tilt of Emerging Bipolar Magnetic Regions on the Sun. Astrophysical Journal, 2008, 688, L115-L118.	4.5	61
42	The second solar spectrum and the hidden magnetism. Proceedings of the International Astronomical Union, 2008, 4, 211-222.	0.0	0
43	Hanle-Zeeman Redistribution Matrix. III. Solution of the Polarized Line Formation Problem. Astrophysical Journal, 2008, 679, 889-899.	4.5	16
44	Zeeman line formation in solar magnetic fields. Astronomy and Astrophysics, 2008, 485, 275-287.	5.1	10
45	Are "EIT Waves" Fast Mode MHD Waves?. Astrophysical Journal, 2007, 664, 556-562.	4.5	108
46	A New Mechanism for Polarizing Light from Obscured Stars. Astrophysical Journal, 2007, 668, L63-L66.	4.5	21
47	Hanle-Zeeman Redistribution Matrix. II. Comparison of Classical and Quantum Electrodynamical Approaches. Astrophysical Journal, 2007, 670, 1485-1503.	4.5	21
48	Hanle-Zeeman Redistribution Matrix. I. Classical Theory Expressions in the Laboratory Frame. Astrophysical Journal, 2007, 663, 625-642.	4.5	19
49	First Polarimetric Measurements and Modeling of the Paschen-Back Effect in CaH Transitions. Astrophysical Journal, 2006, 649, L49-L52.	4.5	10
50	Spherical harmonic decomposition of solar magnetic fields. Astronomy and Astrophysics, 2005, 438, 349-363.	5.1	46
51	Scattering polarization in strong chromospheric lines. Astronomy and Astrophysics, 2005, 434, 713-724.	5.1	30
52	Solar polarimetry in the near UV with the Zurich Imaging Polarimeter ZIMPOL II. Astronomy and Astrophysics, 2004, 422, 703-708.	5.1	70
53	Large Scale Solar Magnetic Fields: Temporal Variations. Symposium - International Astronomical Union, 2004, 219, 552-556.	0.1	4
54	New possibilities for the diagnostics of solar magnetic fields. Astronomical and Astrophysical Transactions, 2001, 20, 515-524.	0.2	0

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55	Summary lecture. <i>Journal of Astrophysics and Astronomy</i> , 2000, 21, 451-457.	1.0	2
56	Scattering physics. <i>Solar Physics</i> , 1996, 164, 1-20.	2.5	9
57	New window for spectroscopy. <i>Nature</i> , 1996, 382, 588-588.	27.8	62
58	Cycle Patterns of the Axisymmetric Magnetic Field. , 1994, , 365-377.		5
59	Small-scale magnetic structures on the Sun. <i>Astronomy and Astrophysics Review</i> , 1989, 1, 3-48.	25.5	146
60	Observational constraints on a ?hidden?, turbulent magnetic field of the Sun. <i>Solar Physics</i> , 1988, 114, 1.	2.5	6
61	Polarimetry in the Mg ii h and k lines. <i>Solar Physics</i> , 1987, 111, 243-254.	2.5	30
62	Evolution of the Sun's magnetic polarities. <i>Solar Physics</i> , 1987, 108, 205-220.	2.5	17
63	Lines in the wavelength range ?? 4300?6700 ? with large stokes V amplitudes outside sunspots. <i>Solar Physics</i> , 1986, 107, 57-61.	2.5	8
64	Global resonances in the evolution of solar magnetic fields. <i>Nature</i> , 1986, 319, 285-290.	27.8	99
65	Dependence of the properties of magnetic fluxtubes on area factor or amount of flux. <i>Solar Physics</i> , 1985, 95, 99-118.	2.5	73
66	Commission 12: Radiation and Structure of the Solar Atmosphere. <i>Transactions of the International Astronomical Union</i> , 1985, 19, 97-100.	0.0	0
67	The Hanle effect and the diagnostics of turbulent magnetic fields in the solar atmosphere. <i>Solar Physics</i> , 1982, 80, 209-226.	2.5	176
68	Search for spectral line polarization in the solar vacuum ultraviolet. <i>Solar Physics</i> , 1980, 66, 13-19.	2.5	29
69	The measurement of solar magnetic fields. <i>Reports on Progress in Physics</i> , 1978, 41, 865-907.	20.1	50
70	Small-Scale Solar Magnetic Fields. , 1976, , 69-99.		36
71	A model of the supergranulation network and of active-region plages. <i>Solar Physics</i> , 1975, 42, 79-105.	2.5	68
72	Differential rotation and sector structure of solar magnetic fields. <i>Solar Physics</i> , 1974, 36, 495-515.	2.5	32

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73	Observations of resonance polarization in Ca I 8448. Solar Physics, 1974, 37, 31-42.	2.5	10
74	Magnetic-field structure of the photospheric network. Solar Physics, 1973, 32, 41-63.	2.5	427
75	On stellar activity cycles. Astrophysics and Space Science, 1972, 15, 307-312.	1.4	18
76	Evolution of solar magnetic fields over an 11-year period. Solar Physics, 1972, 23, 307-339.	2.5	52
77	On the filamentary nature of solar magnetic fields. Solar Physics, 1972, 22, 402-417.	2.5	169
78	On the small-scale structure of solar magnetic fields. Solar Physics, 1972, 27, 330-346.	2.5	136
79	The coronal and interplanetary magnetic fields at the time of the solar eclipse of 7 March, 1970. Solar Physics, 1971, 21, 263-271.	2.5	5
80	The Interpretation of Magnetograph Results: The Formation of Absorption Lines in a Magnetic Field. , 1971, , 101-129.		11
81	A comparison of simultaneous measurements of the polar magnetic fields made at Crimea and Mount Wilson. Solar Physics, 1970, 15, 265-272.	2.5	5
82	A fast and accurate guiding system. Solar Physics, 1970, 11, 155-156.	2.5	2
83	A method to obtain a solar velocity map directly in one spectroheliogram. Solar Physics, 1969, 7, 329.	2.5	0
84	Solar magnetic-field measurements using Babinet compensators. Solar Physics, 1969, 6, 480-481.	2.5	3