

Rudolf von Steiger

List of Publications by Year in descending order

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100
papers

5,117
citations

81743

39
h-index

88477

70
g-index

108
all docs

108
docs citations

108
times ranked

2501
citing authors

#	ARTICLE	IF	CITATIONS
1	Composition of quasi-stationary solar wind flows from Ulysses/Solar Wind Ion Composition Spectrometer. <i>Journal of Geophysical Research</i> , 2000, 105, 27217-27238.	3.3	445
2	Detection of Interstellar Pick-Up Hydrogen in the Solar System. <i>Science</i> , 1993, 261, 70-73.	6.0	275
3	Origin of the solar wind from composition data. <i>Space Science Reviews</i> , 1995, 72, 49-60.	3.7	265
4	The southern high-speed stream: results from the SWICS instrument on Ulysses. <i>Science</i> , 1995, 268, 1033-1036.	6.0	243
5	Acceleration of interstellar pickup ions in the disturbed solar wind observed on Ulysses. <i>Journal of Geophysical Research</i> , 1994, 99, 17637.	3.3	230
6	Spatial structure of the solar wind and comparisons with solar data and models. <i>Journal of Geophysical Research</i> , 1998, 103, 14587-14599.	3.3	194
7	Synopsis of the interstellar He parameters from combined neutral gas, pickup ion and UV λ scattering observations and related consequences. <i>Astronomy and Astrophysics</i> , 2004, 426, 897-907.	2.1	178
8	COMPOSITION OF THE SOLAR CORONA, SOLAR WIND, AND SOLAR ENERGETIC PARTICLES. <i>Astrophysical Journal</i> , 2012, 755, 33.	1.6	162
9	The solar wind composition throughout the solar cycle: A continuum of dynamic states. <i>Geophysical Research Letters</i> , 2002, 29, 66-1-66-4.	1.5	156
10	Slow Solar Wind: Observations and Modeling. <i>Space Science Reviews</i> , 2016, 201, 55-108.	3.7	147
11	Geoeffective Properties of Solar Transients and Stream Interaction Regions. <i>Space Science Reviews</i> , 2017, 212, 1271-1314.	3.7	133
12	Understanding Interplanetary Coronal Mass Ejection Signatures. <i>Space Science Reviews</i> , 2006, 123, 177-216.	3.7	119
13	Observations of the helium focusing cone with pickup ions. <i>Astronomy and Astrophysics</i> , 2004, 426, 845-854.	2.1	110
14	Cosmogenic Radionuclides. <i>Physics of Earth and Space Environments</i> , 2012, , .	0.5	106
15	C+Pickup ions in the heliosphere and their origin. <i>Journal of Geophysical Research</i> , 1995, 100, 23373.	3.3	105
16	Kinetic properties of heavy ions in the solar wind from SWICS/Ulysses. <i>Space Science Reviews</i> , 1995, 72, 71-76.	3.7	99
17	Solar wind stream interfaces in corotating interaction regions: SWICS/Ulysses results. <i>Journal of Geophysical Research</i> , 1997, 102, 17407-17417.	3.3	82
18	Abundance variations in the solar wind. <i>Advances in Space Research</i> , 1995, 15, 3-12.	1.2	74

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19	Quiescent current sheets in the solar wind and origins of slow wind. <i>Journal of Geophysical Research</i> , 2009, 114, .	3.3	69
20	Differences in the O7+/O6+ratio of magnetic cloud and non-cloud coronal mass ejections. <i>Geophysical Research Letters</i> , 1998, 25, 3465-3468.	1.5	68
21	Plasma Composition in Jupiter's Magnetosphere: Initial Results from the Solar Wind Ion Composition Spectrometer. <i>Science</i> , 1992, 257, 1535-1539.	6.0	64
22	Inner source distributions: Theoretical interpretation, implications, and evidence for inner source protons. <i>Journal of Geophysical Research</i> , 2000, 105, 7465-7472.	3.3	62
23	Ionization state and magnetic topology of coronal mass ejections. <i>Journal of Geophysical Research</i> , 2001, 106, 10597-10613.	3.3	57
24	SIXTEEN YEARS OF<i>ULYSSES</i>INTERSTELLAR DUST MEASUREMENTS IN THE SOLAR SYSTEM. III. SIMULATIONS AND DATA UNVEIL NEW INSIGHTS INTO LOCAL INTERSTELLAR DUST. <i>Astrophysical Journal</i> , 2015, 812, 141.	1.6	57
25	Turbulence in the Solar Atmosphere andÅSolar Wind. <i>Space Science Reviews</i> , 2010, 156, 135-238.	3.7	56
26	Solar wind from high-latitude coronal holes at solar maximum. <i>Geophysical Research Letters</i> , 2002, 29, 28-1-28-4.	1.5	51
27	Encounter of the<i>Ulysses</i>Spacecraft with the Ion Tail of Comet McNaught. <i>Astrophysical Journal</i> , 2007, 667, 1262-1266.	1.6	51
28	SOLAR METALLICITY DERIVED FROM IN SITU SOLAR WIND COMPOSITION. <i>Astrophysical Journal</i> , 2016, 816, 13.	1.6	51
29	Solar wind helium isotopic composition from SWICS/ULYSSES. <i>Space Science Reviews</i> , 1995, 72, 61-64.	3.7	50
30	The Transition Between Fast and Slow Solar Wind from Composition Data. <i>Space Science Reviews</i> , 1999, 87, 353-356.	3.7	49
31	Oxygen flux in the solar wind: Ulysses observations. <i>Geophysical Research Letters</i> , 2010, 37, .	1.5	48
32	COMPOSITION OF CORONAL MASS EJECTIONS. <i>Astrophysical Journal</i> , 2016, 826, 10.	1.6	46
33	Achievements and Challenges in the Science of Space Weather. <i>Space Science Reviews</i> , 2017, 212, 1137-1157.	3.7	45
34	Interception of comet Hyakutake's ion tail at a distance of 500 million kilometres. <i>Nature</i> , 2000, 404, 576-578.	13.7	44
35	THE SOLAR WIND NEON ABUNDANCE OBSERVED WITH<i>ACE</i>/SWICS AND<i>ULYSSES</i>/SWICS. <i>Astrophysical Journal</i> , 2014, 789, 60.	1.6	44
36	Origin of C+ ions in the heliosphere. <i>Space Science Reviews</i> , 1996, 78, 43-52.	3.7	43

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37	Introduction to the Solar Activity Cycle: Overview of Causes and Consequences. <i>Space Science Reviews</i> , 2014, 186, 1-15.	3.7	42
38	Heliospheric conditions that affect the interstellar gas inside the heliosphere. <i>Astronomy and Astrophysics</i> , 2004, 426, 885-895.	2.1	40
39	Polar coronal holes during the past solar cycle: Ulysses observations. <i>Journal of Geophysical Research</i> , 2011, 116, n/a-n/a.	3.3	40
40	Solar wind stream interfaces in corotating interaction regions: New SWICS/Ulysses results. <i>Journal of Geophysical Research</i> , 1999, 104, 9933-9945.	3.3	39
41	Variable carbon and oxygen abundances in the solar wind as observed in earth's magnetosheath by AMPTE/CCE. <i>Astrophysical Journal</i> , 1992, 389, 791.	1.6	39
42	The relation of temporal variations of soft X-ray emission from comet Hyakutake to variations of ion fluxes in the solar wind. <i>Journal of Geophysical Research</i> , 2000, 105, 20949-20955.	3.3	36
43	Solar and heliospheric processes from solar wind composition measurements. <i>Philosophical Transactions of the Royal Society: Physical and Engineering Sciences</i> , 1994, 349, 213-226.	1.0	35
44	Origin, Injection, and Acceleration of CIR Particles: Observations Report of Working Group 6. <i>Space Science Reviews</i> , 1999, 89, 327-367.	3.7	33
45	An ICME observed by Voyager 2 at 58 AU and by Ulysses at 5 AU. <i>Geophysical Research Letters</i> , 2001, 28, 2755-2758.	1.5	32
46	Cometary Ions Trapped in a Coronal Mass Ejection. <i>Astrophysical Journal</i> , 2004, 604, L121-L124.	1.6	32
47	Solar wind from the coronal hole boundaries. <i>Journal of Geophysical Research</i> , 2005, 110, .	3.3	31
48	Pick-up Ion Measurements in the Heliosphere – A Review. <i>Astrophysics and Space Science</i> , 2000, 274, 97-114.	0.5	29
49	The Sun at solar minimum: North - south asymmetry of the polar coronal holes. <i>Geophysical Research Letters</i> , 2002, 29, 77-1-77-4.	1.5	29
50	The Heliospheric Heii30.4 nm Solar Flux During Cycle 23. <i>Astrophysical Journal</i> , 2005, 625, 1036-1044.	1.6	29
51	ICMEs in the Outer Heliosphere and at High Latitudes: An Introduction. <i>Space Science Reviews</i> , 2006, 123, 111-126.	3.7	27
52	A statistical study of oxygen freezing-in temperature and energetic particles inside magnetic clouds observed by Ulysses. <i>Journal of Geophysical Research</i> , 2004, 109, .	3.3	26
53	Kinetic properties of heavy solar wind ions from Ulysses-SWICS. <i>Geophysical Research Letters</i> , 2006, 33, .	1.5	26
54	Turbulence and intermittency in the heliospheric magnetic field in fast and slow solar wind. <i>Journal of Geophysical Research</i> , 2009, 114, .	3.3	26

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55	SPATIALLY DEPENDENT HEATING AND IONIZATION IN AN ICME OBSERVED BY BOTH <i>ACE</i> AND <i>ULYSSES</i> . <i>Astrophysical Journal</i> , 2012, 760, 105.	1.6	26
56	Identification of trailing edge solar wind stream interfaces: A comparison of <i>Ulysses</i> plasma and composition measurements. <i>Journal of Geophysical Research</i> , 1999, 104, 9925-9932.	3.3	25
57	The 3-D Heliosphere from the <i>Ulysses</i> and <i>ACE</i> Solar Wind Ion Composition Experiments. <i>Space Science Reviews</i> , 2001, 97, 123-127.	3.7	24
58	VARIATIONS IN SOLAR WIND FRACTIONATION AS SEEN BY <i>ACE</i> /SWICS AND THE IMPLICATIONS FOR <i>GENESIS</i> MISSION RESULTS. <i>Astrophysical Journal</i> , 2015, 812, 1.	1.6	24
59	Interplanetary and solar surface properties of coronal holes observed during solar maximum. <i>Journal of Geophysical Research</i> , 2003, 108, .	3.3	23
60	Corotating Interaction Regions at High Latitudes. <i>Space Science Reviews</i> , 1999, 89, 221-268.	3.7	21
61	Sources of Solar Wind at Solar Minimum: Constraints from Composition Data. <i>Space Science Reviews</i> , 2012, 172, 41-55.	3.7	20
62	Invited Article: Characterization of background sources in space-based time-of-flight mass spectrometers. <i>Review of Scientific Instruments</i> , 2014, 85, 091301.	0.6	20
63	Solar wind charge states measured by <i>ULYSSES</i> /SWICS in the south polar hole. <i>Space Science Reviews</i> , 1995, 72, 65-70.	3.7	18
64	ICMEs at High Latitudes and in the Outer Heliosphere. <i>Space Science Reviews</i> , 2006, 123, 417-451.	3.7	18
65	O5+ in High Speed Solar Wind Streams: SWICS/ <i>Ulysses</i> Results. <i>Space Science Reviews</i> , 1998, 85, 387-396.	3.7	16
66	The solar wind throughout the solar cycle. , 2008, , 41-78.		15
67	SILICON AND OXYGEN CHARGE STATE DISTRIBUTIONS AND RELATIVE ABUNDANCES IN THE SOLAR WIND MEASURED BY SWICS ON <i>ULYSSES</i> . , 1992, , 337-340.		15
68	Boundary layer ion composition at Jupiter during the inbound pass of the <i>Ulysses</i> flyby. <i>Planetary and Space Science</i> , 1993, 41, 869-876.	0.9	14
69	Sulfur abundances in the solar wind measured by SWICS on <i>Ulysses</i> . <i>Advances in Space Research</i> , 1993, 13, 79-82.	1.2	12
70	Radial gradients of ion densities and temperatures derived from SWICS/ <i>Ulysses</i> observations. <i>Geophysical Research Letters</i> , 1995, 22, 2445-2448.	1.5	12
71	Solar wind composition and expectations for high solar latitudes. <i>Advances in Space Research</i> , 1993, 13, 63-74.	1.2	11
72	Composition Aspects of the Upper Solar Atmosphere Rapporteur Paper III. , 1998, 85, 407-418.		11

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73	Linking the Sun to the Heliosphere Using Composition Data and Modelling. <i>Space Science Reviews</i> , 2021, 217, .	3.7	11
74	Primordial Nuclei and Their Galactic Evolution. <i>Space Sciences Series of ISSI</i> , 1998, , .	0.0	10
75	Minimal Magnetic States of the Sun and the Solar Wind: Implications for the Origin of the Slow Solar Wind. <i>Space Science Reviews</i> , 2017, 210, 227-247.	3.7	9
76	The Expansion of Coronal Plumes in the Fast Solar Wind. <i>Space Science Reviews</i> , 1998, 85, 349-356.	3.7	8
77	Kinetic temperature ratios of O6+and He2+: Observations from Wind/MASS and Ulysses/SWICS. <i>Geophysical Research Letters</i> , 1996, 23, 1187-1190.	1.5	7
78	Space physicsâ€™ grand challenges for the 21st century. <i>Frontiers in Physics</i> , 2013, 1, .	1.0	6
79	Determination of Plasma, Pickup Ion, and Suprathermal Particle Spectrum in the Solar Wind Frame of Reference. <i>Astrophysical Journal</i> , 2019, 871, 60.	1.6	6
80	The Solar Activity Cycle. <i>Space Sciences Series of ISSI</i> , 2015, , .	0.0	6
81	O5+ in High Speed Solar Wind Streams: SWICS/Ulysses Results. <i>Space Sciences Series of ISSI</i> , 1998, , 387-396.	0.0	6
82	The Astrophysics of Galactic Cosmic Rays. <i>Space Science Reviews</i> , 2001, 99, 3-11.	3.7	5
83	Kinetic properties of heavy solar wind ions from Ulysses-SWICS. <i>Advances in Space Research</i> , 2002, 30, 73-78.	1.2	5
84	Model of the all-sky He II 30.4 nm solar flux. <i>Advances in Space Research</i> , 2005, 35, 388-392.	1.2	5
85	The Astrophysics of Galactic Cosmic Rays. <i>Space Sciences Series of ISSI</i> , 2001, , 3-11.	0.0	5
86	Diffusive fractionation in the chromosphere. <i>Space Science Reviews</i> , 1994, 70, 341-346.	3.7	2
87	Foreword by the volume editors. <i>Space Science Reviews</i> , 1996, 78, xiii-xiv.	3.7	2
88	Title is missing!. , 1999, 88, 611-612.		2
89	Transition Region: First Ionization Potential Effect. , 0, , .		2
90	Bidirectional Proton Flows and Comparison of Freezing-in Temperatures in ICMEs and Magnetic Clouds. <i>Proceedings of the International Astronomical Union</i> , 2004, 2004, 420-427.	0.0	1

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91	Commission 49: Interplanetary Plasma and Heliosphere. Proceedings of the International Astronomical Union, 2005, 1, 103-120.	0.0	1
92	Editorial: Measuring Solar Magnetic Fields – An Outline of History, Current Status and Challenges. Space Science Reviews, 2017, 210, 1-3.	3.7	1
93	From the Outer Heliosphere to the Local Bubble. Space Sciences Series of ISSI, 2009, , .	0.0	1
94	Observations of the solar wind and interstellar pick-up ion populations in the heliosphere with Ulysses. Advances in Space Research, 1995, 16, 343.	1.2	0
95	Dynamical processes in critical regions of the heliosphere. Advances in Space Research, 2006, 38, 1.	1.2	0
96	DIVISION II: SUN AND HELIOSPHERE. Proceedings of the International Astronomical Union, 2008, 4, 73-78.	0.0	0
97	COMMISSION 49: INTERPLANETARY PLASMA AND HELIOSPHERE. Proceedings of the International Astronomical Union, 2008, 4, 124-144.	0.0	0
98	DIVISION II: SUN and HELIOSPHERE. Proceedings of the International Astronomical Union, 2010, 6, 146-157.	0.0	0
99	Editorial to the Topical Collection on Supernovae. Space Science Reviews, 2018, 214, 1.	3.7	0
100	Sources of Solar Wind at Solar Minimum: Constraints from Composition Data. Space Sciences Series of ISSI, 2012, , 41-55.	0.0	0