

Simon Wing

List of Publications by Year in descending order

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105
papers

4,350
citations

117453

34
h-index

114278

63
g-index

130
all docs

130
docs citations

130
times ranked

2501
citing authors

#	ARTICLE	IF	CITATIONS
1	A new magnetic coordinate system for conjugate studies at high latitudes. Journal of Geophysical Research, 1989, 94, 9139-9143.	3.3	584
2	Diffuse, monoenergetic, and broadband aurora: The global precipitation budget. Journal of Geophysical Research, 2009, 114, .	3.3	372
3	Seasonal variations in diffuse, monoenergetic, and broadband aurora. Journal of Geophysical Research, 2010, 115, .	3.3	155
4	Central plasma sheet ion properties as inferred from ionospheric observations. Journal of Geophysical Research, 1998, 103, 6785-6800.	3.3	154
5	The auroral oval position, structure, and intensity of precipitation from 1984 onward: An automated online data base. Journal of Geophysical Research, 1991, 96, 5877-5882.	3.3	142
6	Dawn-dusk asymmetries, ion spectra, and sources in the northward interplanetary magnetic field plasma sheet. Journal of Geophysical Research, 2005, 110, .	3.3	118
7	Kp forecast models. Journal of Geophysical Research, 2005, 110, .	3.3	109
8	Characterizing the state of the magnetosphere: Testing the ion precipitation maxima latitude (b _{2i}) and the ion isotropy boundary. Journal of Geophysical Research, 1998, 103, 4739-4745.	3.3	100
9	Double cusp: Model prediction and observational verification. Journal of Geophysical Research, 2001, 106, 25571-25593.	3.3	100
10	Kelvin Helmholtz Instability in Planetary Magnetospheres. Space Science Reviews, 2014, 184, 1-31.	3.7	90
11	2D plasma sheet ion density and temperature profiles for northward and southward IMF. Geophysical Research Letters, 2002, 29, 21-1-21-4.	1.5	83
12	Magnetic dipolarization with substorm expansion onset. Journal of Geophysical Research, 2002, 107, SMP 23-1.	3.3	82
13	Global cooling and densification of the plasma sheet during an extended period of purely northward IMF on October 22-24, 2003. Geophysical Research Letters, 2005, 32, n/a-n/a.	1.5	82
14	Review of Solar Wind Entry into and Transport Within the Plasma Sheet. Space Science Reviews, 2014, 184, 33-86.	3.7	82
15	Information theoretical approach to discovering solar wind drivers of the outer radiation belt. Journal of Geophysical Research: Space Physics, 2016, 121, 9378-9399.	0.8	79
16	Effects of interplanetary magnetic field component and the solar wind dynamic pressure on the geosynchronous magnetic field. Journal of Geophysical Research, 1997, 102, 7207-7216.	3.3	73
17	Dawn-dusk asymmetries in the coupled solar wind-magnetosphere-ionosphere system: a review. Annales Geophysicae, 2014, 32, 705-737.	0.6	67
18	A large statistical study of the entry of interplanetary magnetic field Y-component into the magnetosphere. Geophysical Research Letters, 1995, 22, 2083-2086.	1.5	65

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19	Dayside field-aligned current source regions. <i>Journal of Geophysical Research</i> , 2010, 115, .	3.3	65
20	Transformation of high-latitude ionospheric region patches into blobs during the March 21, 1990, storm. <i>Journal of Geophysical Research</i> , 2000, 105, 5215-5230.	3.3	62
21	Auroral particle precipitation characterized by the substorm cycle. <i>Journal of Geophysical Research: Space Physics</i> , 2013, 118, 1022-1039.	0.8	59
22	Relation to solar activity of intense aurorae in sunlight and darkness. <i>Nature</i> , 1998, 393, 342-344.	13.7	56
23	Quiet time plasma sheet ion pressure contribution to Birkeland currents. <i>Journal of Geophysical Research</i> , 2000, 105, 7793-7802.	3.3	56
24	Substorm cycle dependence of various types of aurora. <i>Journal of Geophysical Research</i> , 2010, 115, .	3.3	53
25	Temporal and spatial dynamics of the regions 1 and 2 Birkeland currents during substorms. <i>Journal of Geophysical Research: Space Physics</i> , 2013, 118, 3007-3016.	0.8	52
26	Modeling the entry of magnetosheath electrons into the dayside ionosphere. <i>Journal of Geophysical Research</i> , 1996, 101, 13155-13167.	3.3	50
27	Imaging Plasma Density Structures in the Soft X-Rays Generated by Solar Wind Charge Exchange with Neutrals. <i>Space Science Reviews</i> , 2018, 214, 1.	3.7	47
28	A solar cycle dependence of nonlinearity in magnetospheric activity. <i>Journal of Geophysical Research</i> , 2005, 110, .	3.3	44
29	Northward interplanetary magnetic field plasma sheet entropies. <i>Journal of Geophysical Research</i> , 2009, 114, .	3.3	44
30	Timescale for the formation of the cold-dense plasma sheet: A case study. <i>Geophysical Research Letters</i> , 2006, 33, .	1.5	41
31	Geosynchronous magnetic field temporal response to solar wind and IMF variations. <i>Journal of Geophysical Research</i> , 2002, 107, SMP 32-1-SMP 32-10.	3.3	39
32	Probabilistic forecasting of the disturbance storm time index: An autoregressive Gaussian process approach. <i>Space Weather</i> , 2017, 15, 1004-1019.	1.3	39
33	Dependence of premidnight field-aligned currents and particle precipitation on solar illumination. <i>Journal of Geophysical Research</i> , 2009, 114, .	3.3	37
34	Locations of nightside precipitation boundaries relative to R2 and R1 currents. <i>Journal of Geophysical Research</i> , 2010, 115, .	3.3	36
35	Formation and transport of entropy structures in the magnetotail simulated with a 3D global hybrid code. <i>Geophysical Research Letters</i> , 2017, 44, 5892-5899.	1.5	35
36	Solar Wind Ion Entry Into the Magnetosphere During Northward IMF. <i>Journal of Geophysical Research: Space Physics</i> , 2019, 124, 5461-5481.	0.8	34

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37	Substorm probabilities are best predicted from solar wind speed. <i>Journal of Atmospheric and Solar-Terrestrial Physics</i> , 2016, 146, 28-37.	0.6	32
38	Applications of Information Theory in Solar and Space Physics. <i>Entropy</i> , 2019, 21, 140.	1.1	31
39	Forecasting relativistic electron flux using dynamic multiple regression models. <i>Annales Geophysicae</i> , 2011, 29, 415-420.	0.6	30
40	External versus internal triggering of substorms: An information-theoretical approach. <i>Geophysical Research Letters</i> , 2014, 41, 5748-5754.	1.5	30
41	Predictive ability of four auroral precipitation models as evaluated using Polar UVI global images. <i>Space Weather</i> , 2010, 8, n/a-n/a.	1.3	29
42	The dependence of the strength and thickness of field-aligned currents on solar wind and ionospheric parameters. <i>Journal of Geophysical Research: Space Physics</i> , 2015, 120, 3987-4008.	0.8	29
43	Ion aurora and its seasonal variations. <i>Journal of Geophysical Research</i> , 2005, 110, .	3.3	27
44	Community-wide validation of geospace model local K-index predictions to support model transition to operations. <i>Space Weather</i> , 2016, 14, 469-480.	1.3	27
45	Nightside detached auroras due to precipitating protons/ions during intense magnetic storms. <i>Journal of Geophysical Research</i> , 2005, 110, .	3.3	24
46	Substorm entropies. <i>Journal of Geophysical Research</i> , 2009, 114, .	3.3	24
47	Using solar wind data to predict daily GPS scintillation occurrence in the African and Asian low-latitude regions. <i>Geophysical Research Letters</i> , 2014, 41, 8176-8184.	1.5	24
48	Substorm plasma sheet ion pressure profiles. <i>Geophysical Research Letters</i> , 2007, 34, .	1.5	23
49	Can Enhanced Flux Loading by High-Speed Jets Lead to a Substorm? Multipoint Detection of the Christmas Day Substorm Onset at 08:17 UT, 2015. <i>Journal of Geophysical Research: Space Physics</i> , 2019, 124, 4314-4340.	0.8	23
50	Solar cycle dependence of nightside field-aligned currents: Effects of dayside ionospheric conductivity on the solar wind-magnetosphere-ionosphere coupling. <i>Journal of Geophysical Research: Space Physics</i> , 2014, 119, 322-334.	0.8	22
51	Information Theoretic Approach to Discovering Causalities in the Solar Cycle. <i>Astrophysical Journal</i> , 2018, 854, 85.	1.6	22
52	Multispacecraft study on the dynamics of the dusk-flank magnetosphere under northward IMF: 10 th January 1997. <i>Journal of Geophysical Research</i> , 2002, 107, SMP 27-1.	3.3	21
53	Constructing the magnetospheric model including pressure measurements. <i>Journal of Geophysical Research</i> , 2002, 107, SMP 4-1.	3.3	21
54	Effect of an MLT dependent electron loss rate on the magnetosphere-ionosphere coupling. <i>Journal of Geophysical Research</i> , 2012, 117, .	3.3	21

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55	Do solar cycles influence giant cell arteritis and rheumatoid arthritis incidence?. <i>BMJ Open</i> , 2015, 5, e006636-e006636.	0.8	21
56	Transfer entropy and cumulant-based cost as measures of nonlinear causal relationships in space plasmas: applications to <i>D</i></sub></sub>. <i>Annales Geophysicae</i> , 2018, 36, 945-952.	0.6	20
57	Introduction to special section on Entropy Properties and Constraints Related to Space Plasma Transport. <i>Journal of Geophysical Research</i> , 2010, 115, .	3.3	19
58	Comparison of DMSP and SECS region-1 and region-2 ionospheric current boundary. <i>Journal of Atmospheric and Solar-Terrestrial Physics</i> , 2016, 143-144, 8-13.	0.6	19
59	Observation of two distinct cold, dense ion populations at geosynchronous orbit: local time asymmetry, solar wind dependence and origin. <i>Annales Geophysicae</i> , 2006, 24, 3451-3465.	0.6	18
60	Cusp Modeling and Observations at Low Altitude. <i>Surveys in Geophysics</i> , 2005, 26, 341-367.	2.1	17
61	Far-ultraviolet signature of polar cusp during southward IMF observed by TIMED/Global Ultraviolet Imager and DMSP. <i>Journal of Geophysical Research</i> , 2005, 110, .	3.3	17
62	Data derived continuous time model for the Dst dynamics. <i>Geophysical Research Letters</i> , 2006, 33, .	1.5	16
63	Solar wind driving of dayside field-aligned currents. <i>Journal of Geophysical Research</i> , 2011, 116, n/a-n/a.	3.3	16
64	Theory and observations of upward field-aligned currents at the magnetopause boundary layer. <i>Geophysical Research Letters</i> , 2015, 42, 9149-9155.	1.5	16
65	Filamentary field-aligned currents at the polar cap region during northward interplanetary magnetic field derived with the Swarm constellation. <i>Annales Geophysicae</i> , 2016, 34, 901-915.	0.6	16
66	Multi-input data derived Dst model. <i>Journal of Geophysical Research</i> , 2007, 112, n/a-n/a.	3.3	15
67	On the propagation of uncertainties in radiation belt simulations. <i>Space Weather</i> , 2016, 14, 982-992.	1.3	15
68	Field-aligned Currents in Auroral Vortices. <i>Journal of Geophysical Research: Space Physics</i> , 2021, 126, e2020JA028583.	0.8	15
69	Untangling the Solar Wind and Magnetospheric Drivers of the Radiation Belt Electrons. <i>Journal of Geophysical Research: Space Physics</i> , 2022, 127, .	0.8	15
70	Multiple cusps during an extended northward IMF period with a significant <i>B</i></sub></sub> component. <i>Journal of Geophysical Research</i> , 2008, 113, .	3.3	14
71	Spectral properties and source regions of dayside electron acceleration events. <i>Journal of Geophysical Research</i> , 2005, 110, .	3.3	13
72	On the field-aligned electric field in the polar cap. <i>Geophysical Research Letters</i> , 2015, 42, 5090-5099.	1.5	13

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73	Cusp for high and low merging rates. <i>Journal of Geophysical Research</i> , 2007, 112, .	3.3	12
74	Polar rain gradients and field-aligned polar cap potentials. <i>Journal of Geophysical Research</i> , 2008, 113, .	3.3	12
75	Periodic Narrowband Radio Wave Emissions and Inward Plasma Transport at Saturn's Magnetosphere. <i>Astronomical Journal</i> , 2020, 159, 249.	1.9	12
76	Low Energy Precipitating Electrons in the Diffuse Aurorae. <i>Geophysical Research Letters</i> , 2019, 46, 3582-3589.	1.5	11
77	Magnetospheric Multiscale Observations of the Source Region of Energetic Electron Microinjections Along the Duskside, High-Latitude Magnetopause Boundary Layer. <i>Geophysical Research Letters</i> , 2021, 48, e2021GL092466.	1.5	9
78	Neural networks for automated classification of ionospheric irregularities in HF radar backscattered signals. <i>Radio Science</i> , 2003, 38, n/a-n/a.	0.8	8
79	LLBL Contribution to the Plasma Sheet Ions. <i>Geophysical Monograph Series</i> , 2003, , 273-282.	0.1	8
80	Asymmetrical response of dayside ion precipitation to a large rotation of the IMF. <i>Journal of Geophysical Research: Space Physics</i> , 2016, 121, 263-273.	0.8	8
81	Information Theoretical Approach to Understanding Flare Waiting Times. <i>Astrophysical Journal</i> , 2020, 899, 148.	1.6	8
82	Entropy conservation and rate of propagation of bubbles in the Earth's magnetotail: A case study. <i>Journal of Geophysical Research</i> , 2012, 117, .	3.3	7
83	Dawn-dusk asymmetry in solar wind ion entry and dayside precipitation: Results from large-scale simulations. <i>Journal of Geophysical Research: Space Physics</i> , 2014, 119, 1549-1562.	0.8	7
84	The double auroral oval in the dusk-midnight sector: Formation, mapping and dynamics. <i>Journal of Geophysical Research</i> , 2012, 117, .	3.3	6
85	Entry of Solar Wind Plasma into the Magnetosphere: Observations Encounter Simulation. <i>Geophysical Monograph Series</i> , 2013, , 73-84.	0.1	6
86	The nightside magnetic field line open-closed boundary and polar rain electron energy-latitude dispersion. <i>Annales Geophysicae</i> , 2015, 33, 39-46.	0.6	6
87	An Information-Theoretical Approach to Space Weather. , 2018, , 45-69.		6
88	Multisatellite low-altitude observations of a magnetopause merging burst. <i>Journal of Geophysical Research</i> , 2010, 115, .	3.3	4
89	Simulating Properties of Seasonal Variability in Solar Activity and Space Weather Impacts. <i>Frontiers in Astronomy and Space Sciences</i> , 2021, 8, .	1.1	4
90	Multi-Spacecraft Observations of Fluctuations Occurring Along the Dusk Flank Magnetopause, and Testing the Connection to an Observed Ionospheric Bead. <i>Frontiers in Astronomy and Space Sciences</i> , 2022, 9, .	1.1	4

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91	Determining magnetotail reconnection location from polar rain energy dispersion. Journal of Atmospheric and Solar-Terrestrial Physics, 2015, 130-131, 75-80.	0.6	3
92	Untangling the Solar Wind Drivers of the Radiation Belt: An Information Theoretical Approach. , 2018, , 149-175.		3
93	Dayside Cusp Aurorae and Ionospheric Convection Under Radial Interplanetary Magnetic Fields. Journal of Geophysical Research: Space Physics, 2021, 126, e2019JA027664.	0.8	3
94	Role of the Solar Minimum in the Waiting Time Distribution Throughout the Heliosphere. Geophysical Research Letters, 2021, 48, e2021GL094348.	1.5	3
95	Remotely imaging the plasma sheet with low-altitude satellite clusters. Journal of Atmospheric and Solar-Terrestrial Physics, 2000, 62, 851-863.	0.6	2
96	Mobile and Wireless Communication: Space Weather Threats, Forecasts, and Risk Management. IT Professional, 2012, 14, 40-46.	1.4	2
97	Field-aligned currents during the extreme solar minimum between the solar cycles 23 and 24. Journal of Geophysical Research: Space Physics, 2014, 119, 2466-2475.	0.8	1
98	Temporal and Spatial Development of TEC Enhancements during Substorms. Journal of Geophysical Research: Space Physics, 2020, 125, e2019JA026985.	0.8	1
99	Driving Parameters for Multi-MeV Electrons Flux Variations in Outer Radiation Belt. Journal of Geophysical Research: Space Physics, 2021, 126, e2021JA029625.	0.8	1
100	Polar Cap Boundary Identification Using Redline Optical Data and DMSP Satellite Particle Data. Journal of Geophysical Research: Space Physics, 2022, 127, .	0.8	1
101	Kinetic Alfvén Waves in the Global Coupling Associated with Fast Flows. , 2021, , .		0
102	Cusp Modeling and Observations at Low Altitude. , 2005, , 341-367.		0
103	Imaging the plasma sheet from ionospheric observations. , 2022, , 341-357.		0
104	Transfer Entropy between Intracranial EEG Nodes Highlights Network Dynamics that Cause and Stop Epileptic Seizures. , 2021, 2021, 6121-6125.		0
105	Editorial: Micro- to Macro-Scale Dynamics of Earth's Flank Magnetopause. Frontiers in Astronomy and Space Sciences, 2022, 9, .	1.1	0