Daniel Welling

List of Publications by Year
in descending order

91 papers	2,521 citations	172457 29 h-index	233421 45 g-index
112 all docs	112 docs citations	112 times ranked	1951 citing authors

#	Article	IF	Citations
1	Measures of Model Performance Based On the Log Accuracy Ratio. Space Weather, 2018, 16, 69-88.	3.7	168
2	Geomagnetically induced currents: Science, engineering, and applications readiness. Space Weather, 2017, 15, 828-856.	3.7	149
3	Circulation of Heavy Ions and Their Dynamical Effects in the Magnetosphere: Recent Observations and Models. Space Science Reviews, 2014, 184, 173-235.	8.1	130
4	Modeling ionospheric outflows and their impact on the magnetosphere, initial results. Journal of Geophysical Research, 2009, 114, .	3.3	114
5	Comparative study of ring current development using empirical, dipolar, and selfâ€consistent magnetic field simulations. Journal of Geophysical Research, 2010, 115, .	3.3	91
6	Geospace environment modeling 2008â€“2009 challenge: D_{st} index. Space Weather, 2013, 11, 187-205.	3.7	69
7	Temporal and Spatial Evolutions of a Large Sunspot Group and Great Auroral Storms Around the Carrington Event in 1859. Space Weather, 2019, 17, 1553-1569.	3.7	68
8	Model Evaluation Guidelines for Geomagnetic Index Predictions. Space Weather, 2018, 16, 2079-2102.	3.7	62
9	Validation of SWMF magnetic field and plasma. Space Weather, 2010, 8, n/a-n/a.	3.7	59
10	The effects of dynamic ionospheric outflow on the ring current. Journal of Geophysical Research, 2011, 116, n/a-n/a.	3.3	58
11	New DMSP database of precipitating auroral electrons and ions. Journal of Geophysical Research: Space Physics, 2017, 122, 9056-9067.	2.4	55
12	The Earth: Plasma Sources, Losses, and Transport Processes. Space Science Reviews, 2015, 192, 145-208.	8.1	54
13	On the Littleâ€Known Consequences of the 4 August 1972 Ultraâ€Fast Coronal Mass Ejecta: Facts, Commentary, and Call to Action. Space Weather, 2018, 16, 1635-1643.	3.7	49
14	SWMF Global Magnetosphere Simulations of January 2005: Geomagnetic Indices and Crossâ€Polar Cap Potential. Space Weather, 2017, 15, 1567-1587.	3.7	44
15	Selfâ€consistent inner magnetosphere simulation driven by a global MHD model. Journal of Geophysical Research, 2010, 115, .	3.3	43
16	Numerical considerations in simulating the global magnetosphere. Annales Geophysicae, 2010, 28, 1589-1614.	1.6	42
17	Including gap region fieldâ€aligned currents and magnetospheric currents in the MHD calculation of groundâ€based magnetic field perturbations. Journal of Geophysical Research, 2010, 115, .	3.3	42
18	Exploring sources of magnetospheric plasma using multispecies MHD. Journal of Geophysical Research, 2010, 115, .	3.3	41

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19	Modes of highâ€latitude auroral conductance variability derived from DMSP energetic electron precipitation observations: Empirical orthogonal function analysis. Journal of Geophysical Research: Space Physics, 2015, 120, 11,013.	2.4	37
20	The Extreme Space Weather Event in 1903 October/November: An Outburst from the Quiet Sun. Astrophysical Journal Letters, 2020, 897, L10.	8.3	36
21	SpacePy - A Python-based Library of Tools for the Space Sciences. , 2010, , .		36
22	Comparison of predictive estimates of highâ€latitude electrodynamics with observations of globalâ€scale Birkeland currents. Space Weather, 2017, 15, 352-373.	3.7	35
23	On the Regional Variability of dB/dt and Its Significance to GIC. Space Weather, 2020, 18, e2020SW002497.	3.7	35
24	Nowcast model for lowâ€energy electrons in the inner magnetosphere. Space Weather, 2015, 13, 16-34.	3.7	34
25	A new DMSP magnetometer and auroral boundary data set and estimates of fieldâ€aligned currents in dynamic auroral boundary coordinates. Journal of Geophysical Research: Space Physics, 2017, 122, 9068-9079.	2.4	34
26	The twoâ€way relationship between ionospheric outflow and the ring current. Journal of Geophysical Research: Space Physics, 2015, 120, 4338-4353.	2.4	33
27	Exploring predictive performance: A reanalysis of the geospace model transition challenge. Space Weather, 2017, 15, 192-203.	3.7	33
28	Optimal interpolation analysis of highâ€latitude ionospheric Hall and Pedersen conductivities: Application to assimilative ionospheric electrodynamics reconstruction. Journal of Geophysical Research: Space Physics, 2016, 121, 4898-4923.	2.4	32
29	Realâ€Time SWMF at CCMC: Assessing the Dst Output From Continuous Operational Simulations. Space Weather, 2018, 16, 1583-1603.	3.7	32
30	Perturbed Input Ensemble Modeling With the Space Weather Modeling Framework. Space Weather, 2018, 16, 1330-1347.	3.7	32
31	What sustained multi-disciplinary research can achieve: The space weather modeling framework. Journal of Space Weather and Space Climate, 2021, 11, 42.	3.3	32
32	The effect of magnetopause motion on fast mode resonance. Journal of Geophysical Research: Space Physics, 2014, 119, 8212-8227.	2.4	29
33	The global structure and time evolution of dayside magnetopause surface eigenmodes. Geophysical Research Letters, 2015, 42, 2594-2602.	4.0	29
34	Outflow in global magnetohydrodynamics as a function of a passive inner boundary source. Journal of Geophysical Research: Space Physics, 2014, 119, 2691-2705.	2.4	27
35	Communityâ€wide validation of geospace model local Kâ€index predictions to support model transition to operations. Space Weather, 2016, 14, 469-480.	3.7	27
36	Recommendations for Nextâ€Generation Ground Magnetic Perturbation Validation. Space Weather, 2018, 16, 1912-1920.	3.7	27

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37	Advances in Space Weather Ensemble Forecasting. Space Weather, 2016, 14, 52-53.	3.7	25
38	Conductance Model for Extreme Events: Impact of Auroral Conductance on Space Weather Forecasts. Space Weather, 2020, 18, e2020SW002551.	3.7	24
39	A Case Study on the Origin of Nearâ€Earth Plasma. Journal of Geophysical Research: Space Physics, 2020, 125, e2020JA028205.	2.4	23
40	Ionospheric outflow and cross polar cap potential: What is the role of magnetospheric inflation?. Geophysical Research Letters, 2012, 39, .	4.0	22
41	Inverse procedure for highâ€latitude ionospheric electrodynamics: Analysis of satelliteâ€borne magnetometer data. Journal of Geophysical Research: Space Physics, 2015, 120, 5241-5251.	2.4	22
42	Impact of equinoctial high-speed stream structures on thermospheric responses. Space Weather, 2014, 12, 277-297.	3.7	20
43	Spaceâ€Based Sentinels for Measurement of Infrared Cooling in the Thermosphere for Space Weather Nowcasting and Forecasting. Space Weather, 2018, 16, 363-375.	3.7	20
44	Understanding the Global Variability in Thermospheric Nitric Oxide Flux Using Empirical Orthogonal Functions (EOFs). Journal of Geophysical Research: Space Physics, 2018, 123, 4150-4170.	2.4	20
45	Numerical Simulations of the Geospace Response to the Arrival of an Idealized Perfect Interplanetary Coronal Mass Ejection. Space Weather, 2021, 19, e2020SW002489.	3.7	20
46	A fast, parameterized model of upper atmospheric ionization rates, chemistry, and conductivity. Journal of Geophysical Research: Space Physics, 2015, 120, 4936-4949.	2.4	18
47	Estimation of cold plasma outflow during geomagnetic storms. Journal of Geophysical Research: Space Physics, 2015, 120, 10,622.	2.4	18
48	Associating ground magnetometer observations with current or voltage generators. Journal of Geophysical Research: Space Physics, 2017, 122, 7130-7141.	2.4	17
49	Validation of Inner Magnetosphere Particle Transport and Acceleration Model (IMPTAM) With Longâ€Term GOES MAGED Measurements of keV Electron Fluxes at Geostationary Orbit. Space Weather, 2019, 17, 687-708.	3.7	17
50	ASHLEY: A New Empirical Model for the Highâ€Latitude Electron Precipitation and Electric Field. Space Weather, 2021, 19, e2020SW002671.	3.7	17
51	The ionospheric source of magnetospheric plasma is not a black box input for global models. Journal of Geophysical Research: Space Physics, 2016, 121, 5559-5565.	2.4	16
52	Contribution of energetic and heavy ions to the plasma pressure: The 27 September to 3 October 2002 storm. Journal of Geophysical Research: Space Physics, 2017, 122, 9427-9439.	2.4	16
53	Challenges associated with nearâ€Earth nightside current. Journal of Geophysical Research: Space Physics, 2016, 121, 6763-6768.	2.4	15
54	The long-term effects of space weather on satellite operations. Annales Geophysicae, 2010, 28, 1361-1367.	1.6	14

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55	Highâ€latitude ionospheric conductivity variability in three dimensions. Geophysical Research Letters, 2016, 43, 7867-7877.	4.0	14
56	Essential science for understanding risks from radiation for airline passengers and crews. Space Weather, 2017, 15, 549-552.	3.7	13
57	Integration of RAM-SCB into the Space Weather Modeling Framework. Journal of Atmospheric and Solar-Terrestrial Physics, 2018, 177, 160-168.	1.6	13
58	The 2019 National Space Weather Strategy and Action Plan and Beyond. Space Weather, 2019, 17, 794-795.	3.7	13
59	Application usability levels: a framework for tracking project product progress. Journal of Space Weather and Space Climate, 2019, 9, A34.	3.3	13
60	Modes of (FACs) Variability and Their Hemispheric Asymmetry Revealed by Inverse and Assimilative Analysis of Iridium Magnetometer Data. Journal of Geophysical Research: Space Physics, 2020, 125, e2019JA027265.	2.4	13
61	Modeling the Geomagnetic Response to the September 2017 Space Weather Event Over Fennoscandia Using the Space Weather Modeling Framework: Studying the Impacts of Spatial Resolution. Space Weather, 2021, 19, e2020SW002683.	3.7	13
62	Sunspot observations by Hisako Koyama: 1945â€“1996. Monthly Notices of the Royal Astronomical Society, 2020, 492, 4513-4527.	4.4	13
63	Magnetospheric cross-field currents during the January 6â€“7, 2011 high-speed stream-driven interval. Journal of Atmospheric and Solar-Terrestrial Physics, 2013, 99, 78-84.	1.6	12
64	Using Multiple Signatures to Improve Accuracy of Substorm Identification. Journal of Geophysical Research: Space Physics, 2020, 125, e2019JA027559.	2.4	12
65	Impacts of Different Causes on the Interâ€Hemispheric Asymmetry of Ionosphereâ€Thermosphere System at Midâ€and Highâ€Latitudes: GITM Simulations. Space Weather, 2021, 19, e2021SW002856.	3.7	10
66	Forward to space weather collection on geomagnetically induced currents: Commentary and research. Space Weather, 2015, 13, 742-746.	3.7	9
67	Effects of Nearly Frontal and Highly Inclined Interplanetary Shocks on Highâ€Latitude Fieldâ€Aligned Currents (FACs). Space Weather, 2019, 17, 1659-1673.	3.7	9
68	Importance of Regionalâ€Scale Auroral Precipitation and Electrical Field Variability to the Stormâ€Time Thermospheric Temperature Enhancement and Inversion Layer (TTEIL) in the Antarctic E Region. Journal of Geophysical Research: Space Physics, 2020, 125, e2020JA028224.	2.4	9
69	Recreating the Horizontal Magnetic Field at Colaba During the Carrington Event With Geospace Simulations. Space Weather, 2021, 19, e2020SW002585.	3.7	8
70	Communicating Uncertainty and Reliability in Space Weather Data, Models, and Applications. Space Weather, 2018, 16, 1453-1454.	3.7	7
71	3D Modeling of Geomagnetically Induced Currents in Swedenâ€”Validation and Extreme Event Analysis. Space Weather, 2022, 20, .	3.7	7
72	Formation of the Lowâ€Energy â€œFingerâ€•Ion Spectral Structure Near the Inner Edge of the Plasma Sheet. Geophysical Research Letters, 2020, 47, e2020GL089875.	4.0	6

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73	Global Magnetohydrodynamic Simulations: Performance Quantification of Magnetopause Distances and Convection Potential Predictions. Frontiers in Astronomy and Space Sciences, 2021, 8, .	2.8	6
74	Multispecies and Multifluid MHD Approaches for the Study of Ionospheric Escape at Mars. Journal of Geophysical Research: Space Physics, 2018, 123, 7370-7383.	2.4	5
75	A Maximum Spreading Speed for Magnetopause Reconnection. Geophysical Research Letters, 2018, 45, 5268-5273.	4.0	5
76	On the Accuracy of Adiabaticity Parameter Estimations Using Magnetospheric Models. Journal of Geophysical Research: Space Physics, 2019, 124, 1785-1805.	2.4	4
77	Global Driving of Auroral Precipitation: 1. Balance of Sources. Journal of Geophysical Research: Space Physics, 2022, 127, .	2.4	4
78	Effects of Energetic Electron and Proton Precipitations on Thermospheric Nitric Oxide Cooling During Shockâ€Led Interplanetary Coronal Mass Ejections. Journal of Geophysical Research: Space Physics, 2019, 124, 8125-8137.	2.4	3
79	Event Studies of Highâ€Latitude FACs With Inverse and Assimilative Analysis of AMPERE Magnetometer Data. Journal of Geophysical Research: Space Physics, 2020, 125, e2019JA027266.	2.4	3
80	The Role of Current Sheet Scattering in the Proton Isotropic Boundary Formation During Geomagnetic Storms. Journal of Geophysical Research: Space Physics, 2019, 124, 3468-3486.	2.4	1
81	Avril Hart and the discovery of solar supergranulation. Astronomy and Geophysics, 2021, 62, 6.38-6.40.	0.2	1
82	On Space Weather During a Total Eclipse. Space Weather, 2017, 15, 1092-1092.	3.7	0
83	Maintaining a Strong Signal and Strong Impact. Space Weather, 2017, 15, 1560-1561.	3.7	0
84	Thank You to Space Weather Peer Reviewers. Space Weather, 2017, 15, 542-544.	3.7	0
85	Advances in Space Weather Data Interpretation and Simulations. Space Weather, 2018, 16, 198-199.	3.7	0
86	The Reprise Special Collection for the 2001 Space Weather Monograph. Space Weather, 2018, 16, 334-340.	3.7	0
87	Thank You to Space Weather Peer Reviewers. Space Weather, 2018, 16, 424-427.	3.7	0
88	Thank You to Our 2018 Peer Reviewers. Space Weather, 2019, 17, 372-374.	3.7	0
89	Fall 2018 AGU Editors' Highlights: Living Within the Sun's Stormy Atmosphere. Space Weather, 2019, 17, 3-5.	3.7	0
90	Thank You to Our 2019 Reviewers. Space Weather, 2020, 18, e2020SW002481.	3.7	0

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91	Thank You to Our 2020 Reviewers. Space Weather, 2021, 19, e2021SW002756.	3.7	0