

# Daniel Welling

## List of Publications by Year in descending order

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Version: 2024-02-01

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	3D Modeling of Geomagnetically Induced Currents in Sweden – Validation and Extreme Event Analysis. <i>Space Weather</i> , 2022, 20, .	3.7	7
2	Global Driving of Auroral Precipitation: 1. Balance of Sources. <i>Journal of Geophysical Research: Space Physics</i> , 2022, 127, .	2.4	4
3	What sustained multi-disciplinary research can achieve: The space weather modeling framework. <i>Journal of Space Weather and Space Climate</i> , 2021, 11, 42.	3.3	32
4	Numerical Simulations of the Geospace Response to the Arrival of an Idealized Perfect Interplanetary Coronal Mass Ejection. <i>Space Weather</i> , 2021, 19, e2020SW002489.	3.7	20
5	Global Magnetohydrodynamic Simulations: Performance Quantification of Magnetopause Distances and Convection Potential Predictions. <i>Frontiers in Astronomy and Space Sciences</i> , 2021, 8, .	2.8	6
6	Thank You to Our 2020 Reviewers. <i>Space Weather</i> , 2021, 19, e2021SW002756.	3.7	0
7	Recreating the Horizontal Magnetic Field at Colaba During the Carrington Event With Geospace Simulations. <i>Space Weather</i> , 2021, 19, e2020SW002585.	3.7	8
8	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. <i>Space Weather</i> , 2021, 19, e2020SW002683.	3.7	13
9	ASHLEY: A New Empirical Model for the High-Latitude Electron Precipitation and Electric Field. <i>Space Weather</i> , 2021, 19, e2020SW002671.	3.7	17
10	Impacts of Different Causes on the Inter-Hemispheric Asymmetry of Ionosphere-Thermosphere System at Mid- and High-Latitudes: GITM Simulations. <i>Space Weather</i> , 2021, 19, e2021SW002856.	3.7	10
11	Avril Hart and the discovery of solar supergranulation. <i>Astronomy and Geophysics</i> , 2021, 62, 6.38-6.40.	0.2	1
12	A Case Study on the Origin of Near-Earth Plasma. <i>Journal of Geophysical Research: Space Physics</i> , 2020, 125, e2020JA028205.	2.4	23
13	Formation of the Low-Energy ‘Finger’ Ion Spectral Structure Near the Inner Edge of the Plasma Sheet. <i>Geophysical Research Letters</i> , 2020, 47, e2020GL089875.	4.0	6
14	Thank You to Our 2019 Reviewers. <i>Space Weather</i> , 2020, 18, e2020SW002481.	3.7	0
15	Importance of Regional-Scale Auroral Precipitation and Electrical Field Variability to the Storm-Time Thermospheric Temperature Enhancement and Inversion Layer (TTEIL) in the Antarctic E Region. <i>Journal of Geophysical Research: Space Physics</i> , 2020, 125, e2020JA028224.	2.4	9
16	Conductance Model for Extreme Events: Impact of Auroral Conductance on Space Weather Forecasts. <i>Space Weather</i> , 2020, 18, e2020SW002551.	3.7	24
17	Using Multiple Signatures to Improve Accuracy of Substorm Identification. <i>Journal of Geophysical Research: Space Physics</i> , 2020, 125, e2019JA027559.	2.4	12
18	Event Studies of High-Latitude FACs With Inverse and Assimilative Analysis of AMPERE Magnetometer Data. <i>Journal of Geophysical Research: Space Physics</i> , 2020, 125, e2019JA027266.	2.4	3

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19	On the Regional Variability of $dI_B/dt$ and Its Significance to GIC. <i>Space Weather</i> , 2020, 18, e2020SW002497.	3.7	35
20	The Extreme Space Weather Event in 1903 October/November: An Outburst from the Quiet Sun. <i>Astrophysical Journal Letters</i> , 2020, 897, L10.	8.3	36
21	Modes of (FACs) Variability and Their Hemispheric Asymmetry Revealed by Inverse and Assimilative Analysis of Iridium Magnetometer Data. <i>Journal of Geophysical Research: Space Physics</i> , 2020, 125, e2019JA027265.	2.4	13
22	Sunspot observations by Hisako Koyama: 1945–1996. <i>Monthly Notices of the Royal Astronomical Society</i> , 2020, 492, 4513-4527.	4.4	13
23	The Role of Current Sheet Scattering in the Proton Isotropic Boundary Formation During Geomagnetic Storms. <i>Journal of Geophysical Research: Space Physics</i> , 2019, 124, 3468-3486.	2.4	1
24	Temporal and Spatial Evolutions of a Large Sunspot Group and Great Auroral Storms Around the Carrington Event in 1859. <i>Space Weather</i> , 2019, 17, 1553-1569.	3.7	68
25	The 2019 National Space Weather Strategy and Action Plan and Beyond. <i>Space Weather</i> , 2019, 17, 794-795.	3.7	13
26	Thank You to Our 2018 Peer Reviewers. <i>Space Weather</i> , 2019, 17, 372-374.	3.7	0
27	On the Accuracy of Adiabaticity Parameter Estimations Using Magnetospheric Models. <i>Journal of Geophysical Research: Space Physics</i> , 2019, 124, 1785-1805.	2.4	4
28	Fall 2018 AGU Editors' Highlights: Living Within the Sun's Stormy Atmosphere. <i>Space Weather</i> , 2019, 17, 3-5.	3.7	0
29	Validation of Inner Magnetosphere Particle Transport and Acceleration Model (IMPTAM) With Long-Term GOES MAGED Measurements of keV Electron Fluxes at Geostationary Orbit. <i>Space Weather</i> , 2019, 17, 687-708.	3.7	17
30	Application usability levels: a framework for tracking project product progress. <i>Journal of Space Weather and Space Climate</i> , 2019, 9, A34.	3.3	13
31	Effects of Nearly Frontal and Highly Inclined Interplanetary Shocks on High-Latitude Field-Aligned Currents (FACs). <i>Space Weather</i> , 2019, 17, 1659-1673.	3.7	9
32	Effects of Energetic Electron and Proton Precipitations on Thermospheric Nitric Oxide Cooling During Shock-Induced Interplanetary Coronal Mass Ejections. <i>Journal of Geophysical Research: Space Physics</i> , 2019, 124, 8125-8137.	2.4	3
33	Space-Based Sentinels for Measurement of Infrared Cooling in the Thermosphere for Space Weather Nowcasting and Forecasting. <i>Space Weather</i> , 2018, 16, 363-375.	3.7	20
34	Integration of RAM-SCB into the Space Weather Modeling Framework. <i>Journal of Atmospheric and Solar-Terrestrial Physics</i> , 2018, 177, 160-168.	1.6	13
35	Measures of Model Performance Based On the Log Accuracy Ratio. <i>Space Weather</i> , 2018, 16, 69-88.	3.7	168
36	Advances in Space Weather Data Interpretation and Simulations. <i>Space Weather</i> , 2018, 16, 198-199.	3.7	0

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37	The Reprise Special Collection for the 2001 Space Weather Monograph. <i>Space Weather</i> , 2018, 16, 334-340.	3.7	0
38	Thank You to Space Weather Peer Reviewers. <i>Space Weather</i> , 2018, 16, 424-427.	3.7	0
39	Model Evaluation Guidelines for Geomagnetic Index Predictions. <i>Space Weather</i> , 2018, 16, 2079-2102.	3.7	62
40	Understanding the Global Variability in Thermospheric Nitric Oxide Flux Using Empirical Orthogonal Functions (EOFs). <i>Journal of Geophysical Research: Space Physics</i> , 2018, 123, 4150-4170.	2.4	20
41	Real-time SWMF at CCMC: Assessing the Dst Output From Continuous Operational Simulations. <i>Space Weather</i> , 2018, 16, 1583-1603.	3.7	32
42	Perturbed Input Ensemble Modeling With the Space Weather Modeling Framework. <i>Space Weather</i> , 2018, 16, 1330-1347.	3.7	32
43	On the Little-known Consequences of the 4 August 1972 Ultra-fast Coronal Mass Ejecta: Facts, Commentary, and Call to Action. <i>Space Weather</i> , 2018, 16, 1635-1643.	3.7	49
44	Recommendations for Next-generation Ground Magnetic Perturbation Validation. <i>Space Weather</i> , 2018, 16, 1912-1920.	3.7	27
45	Communicating Uncertainty and Reliability in Space Weather Data, Models, and Applications. <i>Space Weather</i> , 2018, 16, 1453-1454.	3.7	7
46	Multispecies and Multifluid MHD Approaches for the Study of Ionospheric Escape at Mars. <i>Journal of Geophysical Research: Space Physics</i> , 2018, 123, 7370-7383.	2.4	5
47	A Maximum Spreading Speed for Magnetopause Reconnection. <i>Geophysical Research Letters</i> , 2018, 45, 5268-5273.	4.0	5
48	Exploring predictive performance: A reanalysis of the geospace model transition challenge. <i>Space Weather</i> , 2017, 15, 192-203.	3.7	33
49	Geomagnetically induced currents: Science, engineering, and applications readiness. <i>Space Weather</i> , 2017, 15, 828-856.	3.7	149
50	A new DMSP magnetometer and auroral boundary data set and estimates of field-aligned currents in dynamic auroral boundary coordinates. <i>Journal of Geophysical Research: Space Physics</i> , 2017, 122, 9068-9079.	2.4	34
51	Essential science for understanding risks from radiation for airline passengers and crews. <i>Space Weather</i> , 2017, 15, 549-552.	3.7	13
52	Comparison of predictive estimates of high-latitude electrodynamics with observations of global-scale Birkeland currents. <i>Space Weather</i> , 2017, 15, 352-373.	3.7	35
53	Contribution of energetic and heavy ions to the plasma pressure: The 27 September to 3 October 2002 storm. <i>Journal of Geophysical Research: Space Physics</i> , 2017, 122, 9427-9439.	2.4	16
54	On Space Weather During a Total Eclipse. <i>Space Weather</i> , 2017, 15, 1092-1092.	3.7	0

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55	SWMF Global Magnetosphere Simulations of January 2005: Geomagnetic Indices and Cross-Polar Cap Potential. <i>Space Weather</i> , 2017, 15, 1567-1587.	3.7	44
56	Maintaining a Strong Signal and Strong Impact. <i>Space Weather</i> , 2017, 15, 1560-1561.	3.7	0
57	Associating ground magnetometer observations with current or voltage generators. <i>Journal of Geophysical Research: Space Physics</i> , 2017, 122, 7130-7141.	2.4	17
58	Thank You to Space Weather Peer Reviewers. <i>Space Weather</i> , 2017, 15, 542-544.	3.7	0
59	New DMSP database of precipitating auroral electrons and ions. <i>Journal of Geophysical Research: Space Physics</i> , 2017, 122, 9056-9067.	2.4	55
60	High-latitude ionospheric conductivity variability in three dimensions. <i>Geophysical Research Letters</i> , 2016, 43, 7867-7877.	4.0	14
61	Community-wide validation of geospace model local K-index predictions to support model transition to operations. <i>Space Weather</i> , 2016, 14, 469-480.	3.7	27
62	Optimal interpolation analysis of high-latitude ionospheric Hall and Pedersen conductivities: Application to assimilative ionospheric electrodynamics reconstruction. <i>Journal of Geophysical Research: Space Physics</i> , 2016, 121, 4898-4923.	2.4	32
63	The ionospheric source of magnetospheric plasma is not a black box input for global models. <i>Journal of Geophysical Research: Space Physics</i> , 2016, 121, 5559-5565.	2.4	16
64	Challenges associated with near-Earth nightside current. <i>Journal of Geophysical Research: Space Physics</i> , 2016, 121, 6763-6768.	2.4	15
65	Advances in Space Weather Ensemble Forecasting. <i>Space Weather</i> , 2016, 14, 52-53.	3.7	25
66	A fast, parameterized model of upper atmospheric ionization rates, chemistry, and conductivity. <i>Journal of Geophysical Research: Space Physics</i> , 2015, 120, 4936-4949.	2.4	18
67	Forward to space weather collection on geomagnetically induced currents: Commentary and research. <i>Space Weather</i> , 2015, 13, 742-746.	3.7	9
68	The two-way relationship between ionospheric outflow and the ring current. <i>Journal of Geophysical Research: Space Physics</i> , 2015, 120, 4338-4353.	2.4	33
69	Modes of high-latitude auroral conductance variability derived from DMSP energetic electron precipitation observations: Empirical orthogonal function analysis. <i>Journal of Geophysical Research: Space Physics</i> , 2015, 120, 11,013.	2.4	37
70	The global structure and time evolution of dayside magnetopause surface eigenmodes. <i>Geophysical Research Letters</i> , 2015, 42, 2594-2602.	4.0	29
71	Estimation of cold plasma outflow during geomagnetic storms. <i>Journal of Geophysical Research: Space Physics</i> , 2015, 120, 10,622.	2.4	18
72	Inverse procedure for high-latitude ionospheric electrodynamics: Analysis of satellite-borne magnetometer data. <i>Journal of Geophysical Research: Space Physics</i> , 2015, 120, 5241-5251.	2.4	22

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73	Nowcast model for low-energy electrons in the inner magnetosphere. <i>Space Weather</i> , 2015, 13, 16-34.	3.7	34
74	The Earth: Plasma Sources, Losses, and Transport Processes. <i>Space Science Reviews</i> , 2015, 192, 145-208.	8.1	54
75	Circulation of Heavy Ions and Their Dynamical Effects in the Magnetosphere: Recent Observations and Models. <i>Space Science Reviews</i> , 2014, 184, 173-235.	8.1	130
76	Impact of equinoctial high-speed stream structures on thermospheric responses. <i>Space Weather</i> , 2014, 12, 277-297.	3.7	20
77	Outflow in global magnetohydrodynamics as a function of a passive inner boundary source. <i>Journal of Geophysical Research: Space Physics</i> , 2014, 119, 2691-2705.	2.4	27
78	The effect of magnetopause motion on fast mode resonance. <i>Journal of Geophysical Research: Space Physics</i> , 2014, 119, 8212-8227.	2.4	29
79	Magnetospheric cross-field currents during the January 6-7, 2011 high-speed stream-driven interval. <i>Journal of Atmospheric and Solar-Terrestrial Physics</i> , 2013, 99, 78-84.	1.6	12
80	Geospace environment modeling 2008-2009 challenge: <i>D<sub>st</sub></i> index. <i>Space Weather</i> , 2013, 11, 187-205.	3.7	69
81	Ionospheric outflow and cross polar cap potential: What is the role of magnetospheric inflation?. <i>Geophysical Research Letters</i> , 2012, 39, .	4.0	22
82	The effects of dynamic ionospheric outflow on the ring current. <i>Journal of Geophysical Research</i> , 2011, 116, n/a-n/a.	3.3	58
83	The long-term effects of space weather on satellite operations. <i>Annales Geophysicae</i> , 2010, 28, 1361-1367.	1.6	14
84	Numerical considerations in simulating the global magnetosphere. <i>Annales Geophysicae</i> , 2010, 28, 1589-1614.	1.6	42
85	Exploring sources of magnetospheric plasma using multispecies MHD. <i>Journal of Geophysical Research</i> , 2010, 115, .	3.3	41
86	Including gap region field-aligned currents and magnetospheric currents in the MHD calculation of ground-based magnetic field perturbations. <i>Journal of Geophysical Research</i> , 2010, 115, .	3.3	42
87	Validation of SWMF magnetic field and plasma. <i>Space Weather</i> , 2010, 8, n/a-n/a.	3.7	59
88	Comparative study of ring current development using empirical, dipolar, and self-consistent magnetic field simulations. <i>Journal of Geophysical Research</i> , 2010, 115, .	3.3	91
89	Self-consistent inner magnetosphere simulation driven by a global MHD model. <i>Journal of Geophysical Research</i> , 2010, 115, .	3.3	43
90	SpacePy - A Python-based Library of Tools for the Space Sciences. , 2010, , .		36

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91	Modeling ionospheric outflows and their impact on the magnetosphere, initial results. Journal of Geophysical Research, 2009, 114, .	3.3	114