Daniel R Weimer

List of Publications by Year in Descending Order

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The third column is the impact factor (IF) of the journal, and the fourth column is the number of citations of the article.

120 papers	4,761 citations	34 h-index	66 g-index
131 ext. papers	5,123 ext. citations	2.8 avg, IF	5.69 L-index

#	Paper	IF	Citations
120	Comparison of a Neutral Density Model With the SET HASDM Density Database. *Space Weather*, **2021**, 19, e2021SW002888	3.7	0
119	Testing the electrodynamic method to derive height-integrated ionospheric conductances. *Annales Geophysicae*, **2021**, 39, 31-51	2	2
118	Improved Neutral Density Predictions Through Machine Learning Enabled Exospheric Temperature Model. *Space Weather*, **2021**, 19,	3.7	1
117	Atmospheric Escape Processes and Planetary Atmospheric Evolution. *Journal of Geophysical Research: Space Physics*, **2020**, 125, e2019JA027639	2.6	24
116	Interhemispheric Asymmetries in the Ground Magnetic Response to Interplanetary Shocks: The Role of Shock Impact Angle. *Space Weather*, **2020**, 18, e2019SW002427	3.7	3
115	A Third Generation Field-Aligned Current Model. *Journal of Geophysical Research: Space Physics*, **2020**, 125, e2019JA027249	2.6	2
114	Improving Neutral Density Predictions Using Exospheric Temperatures Calculated on a Geodesic, Polyhedral Grid. *Space Weather*, **2020**, 18, e2019SW002355	3.7	9
113	Validity Study of the Swarm Horizontal Cross-Track Ion Drift Velocities in the High-Latitude Ionosphere. *Earth and Space Science*, **2019**, 6, 411-432	3.1	13
112	Derivation of Hemispheric Ionospheric Current Functions From Ground-Level Magnetic Fields. *Journal of Geophysical Research: Space Physics*, **2019**, 124, 3149-3161	2.6	1
111	Empirical Modeling of the Geomagnetic Field for GIC Predictions. *Geophysical Monograph Series*, **2019**, 67-78	1.1	2
110	How Might the Thermosphere and Ionosphere React to an Extreme Space Weather Event? **2018**, 513-539		3
109	Correlations Between the Thermosphere's Semiannual Density Variations and Infrared Emissions Measured With the SABER Instrument. *Journal of Geophysical Research: Space Physics*, **2018**, 123, 8850-8864	2.6	11
108	Field-aligned current response to solar indices. *Journal of Geophysical Research: Space Physics*, **2017**, 122, 5798-5815	2.6	7
107	Conjugate observations of electromagnetic ion cyclotron waves associated with traveling convection vortex events. *Journal of Geophysical Research: Space Physics*, **2017**, 122, 7336-7352	2.6	7
106	Associating ground magnetometer observations with current or voltage generators. *Journal of Geophysical Research: Space Physics*, **2017**, 122, 7130-7141	2.6	10
105	Linear response of field-aligned currents to the interplanetary electric field. *Journal of Geophysical Research: Space Physics*, **2017**, 122, 8502-8515	2.6	8
104	Community-wide validation of geospace model local K-index predictions to support model transition to operations. *Space Weather*, **2016**, 14, 469-480	3.7	24

103	GEM-CEDAR challenge: Poynting flux at DMSP and modeled Joule heat. *Space Weather*, **2016**, 14, 113-135	3.7	12
102	Validation of an operational product to determine L1 to Earth propagation time delays. *Space Weather*, **2016**, 14, 93-112	3.7	12
101	Intercalibration of neutral density measurements for mapping the thermosphere. *Journal of Geophysical Research: Space Physics*, **2016**, 121, 5975-5990	2.6	19
100	Conjugate observations of traveling convection vortices associated with transient events at the magnetopause. *Journal of Geophysical Research: Space Physics*, **2015**, 120, 2015-2035	2.6	15
99	High correlations between temperature and nitric oxide in the thermosphere. *Journal of Geophysical Research: Space Physics*, **2015**, 120, 5998-6009	2.6	17
98	The two-way relationship between ionospheric outflow and the ring current. *Journal of Geophysical Research: Space Physics*, **2015**, 120, 4338-4353	2.6	29
97	Quantitative maps of geomagnetic perturbation vectors during substorm onset and recovery. *Journal of Geophysical Research: Space Physics*, **2015**, 120, 1197-1214	2.6	9
96	Systematic Evaluation of Ionosphere/Thermosphere (IT) Models. *Geophysical Monograph Series*, **2014**, 145-160	1.1	10
95	Energy coupling during the August 2011 magnetic storm. *Journal of Geophysical Research: Space Physics*, **2014**, 119, 1219-1232	2.6	39
94	An autonomous adaptive low-power instrument platform (AAL-PIP) for remote high-latitude geospace data collection. *Geoscientific Instrumentation, Methods and Data Systems*, **2014**, 3, 211-227	1.5	17
93	Low latitude thermospheric responses to magnetic storms. *Journal of Geophysical Research: Space Physics*, **2013**, 118, 3866-3876	2.6	15
92	An empirical model of ground-level geomagnetic perturbations. *Space Weather*, **2013**, 11, 107-120	3.7	33
91	MHD Simulation of Magnetospheric Transport at the Mesoscale. *Geophysical Monograph Series*, **2013**, 229-240	1.1	21
90	The Conductance of Auroral Magnetic Field Lines. *Geophysical Monograph Series*, **2013**, 108-113	1.1	5
89	Dayside Electrodynamics Observed by Polar with Northward IMF. *Geophysical Monograph Series*, **2013**, 13-23	1.1	
88	Geomagnetic response to solar wind dynamic pressure impulse events at high-latitude conjugate points. *Journal of Geophysical Research: Space Physics*, **2013**, 118, 6055-6071	2.6	18
87	Community-wide validation of geospace model ground magnetic field perturbation predictions to support model transition to operations. *Space Weather*, **2013**, 11, 369-385	3.7	99
86	Anomalously low geomagnetic energy inputs during 2008 solar minimum. *Journal of Geophysical Research*, **2012**, 117, n/a-n/a		21

85	Thermospheric basis functions for improved dynamic calibration of semi-empirical models. *Space Weather*, **2012**, 10, n/a-n/a	3.7	13
84	CEDAR Electrodynamics Thermosphere Ionosphere (ETI) Challenge for systematic assessment of ionosphere/thermosphere models: Electron density, neutral density, NmF2, and hmF2 using space based observations. *Space Weather*, **2012**, 10, n/a-n/a	3.7	52
83	Modeling studies of the impact of high-speed streams and co-rotating interaction regions on the thermosphere-ionosphere. *Journal of Geophysical Research*, **2012**, 117, n/a-n/a		44
82	Geospace Environment Modeling 2008–2009 Challenge: Ground magnetic field perturbations. *Space Weather*, **2011**, 9, n/a-n/a	3.7	61
81	Predicting global average thermospheric temperature changes resulting from auroral heating. *Journal of Geophysical Research*, **2011**, 116, n/a-n/a		27
80	Interplanetary field enhancements travel at the solar wind speed. *Geophysical Research Letters*, **2010**, 37, n/a-n/a	4.9	7
79	Statistical maps of geomagnetic perturbations as a function of the interplanetary magnetic field. *Journal of Geophysical Research*, **2010**, 115, n/a-n/a		36
78	Comparison of the Hill–Siscoe polar cap potential theory with the Weimer and AMIE models. *Journal of Atmospheric and Solar-Terrestrial Physics*, **2010**, 72, 302-308	2	1
77	Storm time global thermosphere: A driven-dissipative thermodynamic system. *Journal of Geophysical Research*, **2009**, 114, n/a-n/a		30
76	Improved calculations of interplanetary magnetic field phase front angles and propagation time delays. *Journal of Geophysical Research*, **2008**, 113, n/a-n/a		48
75	Response of the thermosphere to Joule heating and particle precipitation. *Journal of Geophysical Research*, **2006**, 111,		47
74	Reply to comment by Haaland et al. on "A new interpretation of Weimer et al.'s solar wind propagation delay technique". *Journal of Geophysical Research*, **2006**, 111,		3
73	A new interpretation of Weimer et al.'s solar wind propagation delay technique. *Journal of Geophysical Research*, **2005**, 110,		31
72	Electron signatures of active merging sites on the magnetopause. *Journal of Geophysical Research*, **2005**, 110,		2
71	Improved ionospheric electrodynamic models and application to calculating Joule heating rates. *Journal of Geophysical Research*, **2005**, 110,		386
70	Predicting surface geomagnetic variations using ionospheric electrodynamic models. *Journal of Geophysical Research*, **2005**, 110,		85
69	Cusp geometry in MHD simulations. *Surveys in Geophysics*, **2005**, 26, 387-407	7.6	7
68	Cusp Geometry in MHD Simulations **2005**, 387-407		

67	Multiple discrete-energy ion features in the inner magnetosphere: 9 February 1998, event. *Annales Geophysicae*, **2004**, 22, 1297-1304	2	32
66	Observed and simulated depletion layers with southward IMF. *Annales Geophysicae*, **2004**, 22, 2151-2169	2	6
65	Temporal-spatial structure of magnetic merging at the magnetopause inferred from 557.7-nm all-sky images. *Annales Geophysicae*, **2004**, 22, 2917-2942	2	4
64	Correction to "Predicting interplanetary magnetic field (IMF) propagation delay times using the minimum variance technique" *Journal of Geophysical Research*, **2004**, 109,		66
63	Polar, Cluster and SuperDARN evidence for high-latitude merging during southward IMF: temporal/spatial evolution. *Annales Geophysicae*, **2003**, 21, 2233-2258	2	13
62	Predicting interplanetary magnetic field (IMF) propagation delay times using the minimum variance technique. *Journal of Geophysical Research*, **2003**, 108,		189
61	Bifurcation of the Cusp: Implications for Understanding Boundary Layers. *Geophysical Monograph Series*, **2003**, 319-328	1.1	2
60	Responses of the open–closed field line boundary in the evening sector to IMF changes: A source mechanism for Sun-aligned arcs. *Journal of Geophysical Research*, **2003**, 108, SMP 4-1		15
59	MHD properties of magnetosheath flow. *Planetary and Space Science*, **2002**, 50, 461-471	2	26
58	Prediction of Alfvénic turbulence near the magnetospheric sash. *Planetary and Space Science*, **2002**, 50, 627-632	2	1
57	Multi-spacecraft studies in aid of space weather specification and understanding. *COSPAR Colloquia Series*, **2002**, 181-189		
56	Hill model of transpolar potential saturation: Comparisons with MHD simulations. *Journal of Geophysical Research*, **2002**, 107, SMP 8-1		197
55	Variable time delays in the propagation of the interplanetary magnetic field. *Journal of Geophysical Research*, **2002**, 107, SMP 29-1-SMP 29-15		77
54	Testing global storm-time electric field models using particle spectra on multiple spacecraft. *Journal of Geophysical Research*, **2002**, 107, SMP 21-1-SMP 21-11		17
53	Predictions of magnetosheath merging between IMF field lines of opposite polarity. *Journal of Geophysical Research*, **2002**, 107, SMP 23-1-SMP 23-14		18
52	Comparing a spherical harmonic model of the global electric field distribution with Astrid-2 observations. *Journal of Geophysical Research*, **2002**, 107, SMP 27-1		3
51	Flow-through magnetic reconnection. *Geophysical Research Letters*, **2002**, 29, 4-1	4.9	21
50	Consequences of a saturated convection electric field on the ring current. *Geophysical Research Letters*, **2002**, 29, 62-1-62-4	4.9	26

49	Response of ionospheric convection to changes in the interplanetary magnetic field: Lessons from a MHD simulation. *Journal of Geophysical Research*, **2001**, 106, 21429-21451		20
48	Magnetospheric sash dependence on IMF direction. *Geophysical Research Letters*, **2001**, 28, 1921-1924	4.9	20
47	Global role of E ? in magnetopause reconnection: An explicit demonstration. *Journal of Geophysical Research*, **2001**, 106, 13015-13022		58
46	Maps of ionospheric field-aligned currents as a function of the interplanetary magnetic field derived from Dynamics Explorer 2 data. *Journal of Geophysical Research*, **2001**, 106, 12889-12902		132
45	Observations of simultaneous effects of merging in both hemispheres. *Journal of Geophysical Research*, **2001**, 106, 24551-24577		21
44	Relation between cusp and mantle in MHD simulation. *Journal of Geophysical Research*, **2001**, 106, 10743-10749		22
43	An improved model of ionospheric electric potentials including substorm perturbations and application to the Geospace Environment Modeling November 24, 1996, event. *Journal of Geophysical Research*, **2001**, 106, 407-416		276
42	Observation of the magnetospheric □ash□and its implications relative to solar-wind/magnetospheric coupling: A multisatellite event analysis. *Journal of Geophysical Research*, **2001**, 106, 6097-6122		21
41	Simulations of the magnetosphere for zero interplanetary magnetic field: The ground state. *Journal of Geophysical Research*, **2001**, 106, 29419-29434		30
40	A New Technique for the Mapping of Ionospheric Field-Aligned Currents from Satellite Magnetometer Data. *Geophysical Monograph Series*, **2000**, 381-388	1.1	11
39	Global Geometry of Magnetospheric Currents Inferred from MHD Simulations. *Geophysical Monograph Series*, **2000**, 41-52	1.1	49
38	Deflected magnetosheath flow at the high-latitude magnetopause. *Journal of Geophysical Research* , **2000**, 105, 12851-12857		14
37	Driving dayside convection with northward IMF: Observations by a sounding rocket launched from Svalbard. *Journal of Geophysical Research*, **2000**, 105, 5245-5263		17
36	Substorm influence on the ionospheric electric potentials and currents. *Journal of Geophysical Research*, **1999**, 104, 185-197		48
35	Geoeffective interplanetary scale sizes derived from regression analysis of polar cap potentials. *Journal of Geophysical Research*, **1999**, 104, 9989-9994		70
34	SuperDARN-detected plasma convection vortices and the global plasma convection. *Journal of Geophysical Research*, **1998**, 103, 11653-11663		4
33	Identification of magnetospheric particles that travel between spacecraft and their use to help obtain magnetospheric potential distributions. *Journal of Geophysical Research*, **1998**, 103, 93-102		8
32	Polar observations of convection with northward interplanetary magnetic field at dayside high latitudes. *Journal of Geophysical Research*, **1998**, 103, 29-45		23

31	DE observations of electric field oscillations associated with an electron conic. *Journal of Geophysical Research*, **1998**, 103, 431-438		4
30	Observed and predicted potential distributions during the October 1995 magnetic cloud passage. *Geophysical Research Letters*, **1998**, 25, 3023-3026	4.9	11
29	The Magnetospheric Sash and the Cross-Tail S. *Geophysical Research Letters*, **1998**, 25, 1605-1608	4.9	101
28	Polar Observations of Cusp Electrodynamics: Evolution from 2- to 4-Cell Convection Patterns **1998**, 157-172		1
27	Geotail measurements compared with the motions of high-latitude auroral boundaries during two substorms. *Journal of Geophysical Research*, **1997**, 102, 9553-9572		17
26	How wide in magnetic local time is the cusp? An event study. *Journal of Geophysical Research*, **1997**, 102, 4765-4776		25
25	A flexible, IMF dependent model of high-latitude electric potentials having Space Weather applications. *Geophysical Research Letters*, **1996**, 23, 2549-2552	4.9	276
24	Reply [to Comment on The relationship between ionospheric convection and magnetic activity by J.-H. Shue and D. R. Weimer] *Journal of Geophysical Research*, **1996**, 101, 11015-11015		
23	Reply [to Comment on Substorm time constants by D. R. Weimer] *Journal of Geophysical Research*, **1995**, 100, 5719		1
22	Models of high-latitude electric potentials derived with a least error fit of spherical harmonic coefficients. *Journal of Geophysical Research*, **1995**, 100, 19595		314
21	Substorm time constants. *Journal of Geophysical Research*, **1994**, 99, 11005		39
20	Satellite measurements through the center of a substorm surge. *Journal of Geophysical Research*, **1994**, 99, 23639		29
19	DE 1 and Viking observations associated with electron conical distributions. *Journal of Geophysical Research*, **1994**, 99, 23673		8
18	The relationship between ionospheric convection and magnetic activity. *Journal of Geophysical Research*, **1994**, 99, 401		37
17	Large-amplitude auroral electric fields measured with DE 1. *Journal of Geophysical Research*, **1993**, 98, 13557-13564		26
16	Variations of the polar cap potential measured during magnetospheric substorms. *Journal of Geophysical Research*, **1992**, 97, 3945		20
15	Magnetospheric boundary dynamics: DE 1 and DE 2 observations near the magnetopause and cusp. *Journal of Geophysical Research*, **1991**, 96, 3505		46
14	Saturation of the auroral electrojet current and the polar cap potential. *Journal of Geophysical Research*, **1990**, 95, 18981		35

13	Agreements between ground-based and satellite-based observations. *Planetary and Space Science*, **1990**, 38, 1533-1540	2	8
12	Polar cap potentials and the auroral electrojet indices. *Planetary and Space Science*, **1990**, 38, 1207-1222	2	39
11	Stationary auroral current oscillations resulting from the magnetospheric generator. *Journal of Geophysical Research*, **1988**, 93, 11436		7
10	The current-voltage relationship in auroral current sheets. *Journal of Geophysical Research*, **1987**, 92, 187		64
9	Velocity shears and sub-km scale irregularities in the nighttime auroral F-region. *Geophysical Research Letters*, **1986**, 13, 101-104	4.9	34
8	The theta aurora. *Journal of Geophysical Research*, **1986**, 91, 3177		238
7	Wave and plasma observations during a compressional Pc 5 wave event August 10, 1982. *Journal of Geophysical Research*, **1986**, 91, 6884		14
6	Electric and magnetic observations of the structure of standing waves in the magnetosphere. *Journal of Geophysical Research*, **1986**, 91, 8895		37
5	Plasma and field observations of a Pc 5 wave event. *Journal of Geophysical Research*, **1986**, 91, 11147		7
4	IMF By -dependent plasma flow and Birkeland currents in the dayside magnetosphere: 1. Dynamics Explorer observations. *Journal of Geophysical Research*, **1985**, 90, 1577		189
3	Enhanced ion outflows measured by the DE 1 high altitude plasma instrument in the dayside plasmasphere during the recovery phase. *Journal of Geophysical Research*, **1985**, 90, 1653		10
2	Auroral zone electric fields from DE 1 and 2 at magnetic conjunctions. *Journal of Geophysical Research*, **1985**, 90, 7479-7494		168
1	Autonomous Adaptive Low-Power Instrument Platform (AAL-PIP) for remote high latitude geospace data collection		1