

Daniel R Weimer

List of Publications by Citations

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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	Improved ionospheric electrodynamic models and application to calculating Joule heating rates. <i>Journal of Geophysical Research</i> , 2005 , 110,		386
119	Models of high-latitude electric potentials derived with a least error fit of spherical harmonic coefficients. <i>Journal of Geophysical Research</i> , 1995 , 100, 19595		314
118	An improved model of ionospheric electric potentials including substorm perturbations and application to the Geospace Environment Modeling November 24, 1996, event. <i>Journal of Geophysical Research</i> , 2001 , 106, 407-416		276
117	A flexible, IMF dependent model of high-latitude electric potentials having Space Weather applications. <i>Geophysical Research Letters</i> , 1996 , 23, 2549-2552	4.9	276
116	The theta aurora. <i>Journal of Geophysical Research</i> , 1986 , 91, 3177		238
115	Hill model of transpolar potential saturation: Comparisons with MHD simulations. <i>Journal of Geophysical Research</i> , 2002 , 107, SMP 8-1		197
114	Predicting interplanetary magnetic field (IMF) propagation delay times using the minimum variance technique. <i>Journal of Geophysical Research</i> , 2003 , 108,		189
113	IMF By -dependent plasma flow and Birkeland currents in the dayside magnetosphere: 1. Dynamics Explorer observations. <i>Journal of Geophysical Research</i> , 1985 , 90, 1577		189
112	Auroral zone electric fields from DE 1 and 2 at magnetic conjunctions. <i>Journal of Geophysical Research</i> , 1985 , 90, 7479-7494		168
111	Maps of ionospheric field-aligned currents as a function of the interplanetary magnetic field derived from Dynamics Explorer 2 data. <i>Journal of Geophysical Research</i> , 2001 , 106, 12889-12902		132
110	The Magnetospheric Sash and the Cross-Tail S. <i>Geophysical Research Letters</i> , 1998 , 25, 1605-1608	4.9	101
109	Community-wide validation of geospace model ground magnetic field perturbation predictions to support model transition to operations. <i>Space Weather</i> , 2013 , 11, 369-385	3.7	99
108	Predicting surface geomagnetic variations using ionospheric electrodynamic models. <i>Journal of Geophysical Research</i> , 2005 , 110,		85
107	Variable time delays in the propagation of the interplanetary magnetic field. <i>Journal of Geophysical Research</i> , 2002 , 107, SMP 29-1-SMP 29-15		77
106	Geoeffective interplanetary scale sizes derived from regression analysis of polar cap potentials. <i>Journal of Geophysical Research</i> , 1999 , 104, 9989-9994		70
105	Correction to Predicting interplanetary magnetic field (IMF) propagation delay times using the minimum variance technique. <i>Journal of Geophysical Research</i> , 2004 , 109,		66
104	The current-voltage relationship in auroral current sheets. <i>Journal of Geophysical Research</i> , 1987 , 92, 187		64

103	Geospace Environment Modeling 2008-2009 Challenge: Ground magnetic field perturbations. <i>Space Weather</i> , 2011 , 9, n/a-n/a	3.7	61
102	Global role of E _z in magnetopause reconnection: An explicit demonstration. <i>Journal of Geophysical Research</i> , 2001 , 106, 13015-13022		58
101	CEDAR Electrodynamic Thermosphere Ionosphere (ETI) Challenge for systematic assessment of ionosphere/thermosphere models: Electron density, neutral density, NmF2, and hmF2 using space based observations. <i>Space Weather</i> , 2012 , 10, n/a-n/a	3.7	52
100	Global Geometry of Magnetospheric Currents Inferred from MHD Simulations. <i>Geophysical Monograph Series</i> , 2000 , 41-52	1.1	49
99	Improved calculations of interplanetary magnetic field phase front angles and propagation time delays. <i>Journal of Geophysical Research</i> , 2008 , 113, n/a-n/a		48
98	Substorm influence on the ionospheric electric potentials and currents. <i>Journal of Geophysical Research</i> , 1999 , 104, 185-197		48
97	Response of the thermosphere to Joule heating and particle precipitation. <i>Journal of Geophysical Research</i> , 2006 , 111,		47
96	Magnetospheric boundary dynamics: DE 1 and DE 2 observations near the magnetopause and cusp. <i>Journal of Geophysical Research</i> , 1991 , 96, 3505		46
95	Modeling studies of the impact of high-speed streams and co-rotating interaction regions on the thermosphere-ionosphere. <i>Journal of Geophysical Research</i> , 2012 , 117, n/a-n/a		44
94	Energy coupling during the August 2011 magnetic storm. <i>Journal of Geophysical Research: Space Physics</i> , 2014 , 119, 1219-1232	2.6	39
93	Substorm time constants. <i>Journal of Geophysical Research</i> , 1994 , 99, 11005		39
92	Polar cap potentials and the auroral electrojet indices. <i>Planetary and Space Science</i> , 1990 , 38, 1207-1222		39
91	The relationship between ionospheric convection and magnetic activity. <i>Journal of Geophysical Research</i> , 1994 , 99, 401		37
90	Electric and magnetic observations of the structure of standing waves in the magnetosphere. <i>Journal of Geophysical Research</i> , 1986 , 91, 8895		37
89	Statistical maps of geomagnetic perturbations as a function of the interplanetary magnetic field. <i>Journal of Geophysical Research</i> , 2010 , 115, n/a-n/a		36
88	Saturation of the auroral electrojet current and the polar cap potential. <i>Journal of Geophysical Research</i> , 1990 , 95, 18981		35
87	Velocity shears and sub-km scale irregularities in the nighttime auroral F-region. <i>Geophysical Research Letters</i> , 1986 , 13, 101-104	4.9	34
86	An empirical model of ground-level geomagnetic perturbations. <i>Space Weather</i> , 2013 , 11, 107-120	3.7	33

85	Multiple discrete-energy ion features in the inner magnetosphere: 9 February 1998, event. <i>Annales Geophysicae</i> , 2004 , 22, 1297-1304	2	32
84	A new interpretation of Weimer et al.'s solar wind propagation delay technique. <i>Journal of Geophysical Research</i> , 2005 , 110,		31
83	Storm time global thermosphere: A driven-dissipative thermodynamic system. <i>Journal of Geophysical Research</i> , 2009 , 114, n/a-n/a		30
82	Simulations of the magnetosphere for zero interplanetary magnetic field: The ground state. <i>Journal of Geophysical Research</i> , 2001 , 106, 29419-29434		30
81	The two-way relationship between ionospheric outflow and the ring current. <i>Journal of Geophysical Research: Space Physics</i> , 2015 , 120, 4338-4353	2.6	29
80	Satellite measurements through the center of a substorm surge. <i>Journal of Geophysical Research</i> , 1994 , 99, 23639		29
79	Predicting global average thermospheric temperature changes resulting from auroral heating. <i>Journal of Geophysical Research</i> , 2011 , 116, n/a-n/a		27
78	MHD properties of magnetosheath flow. <i>Planetary and Space Science</i> , 2002 , 50, 461-471	2	26
77	Consequences of a saturated convection electric field on the ring current. <i>Geophysical Research Letters</i> , 2002 , 29, 62-1-62-4	4.9	26
76	Large-amplitude auroral electric fields measured with DE 1. <i>Journal of Geophysical Research</i> , 1993 , 98, 13557-13564		26
75	How wide in magnetic local time is the cusp? An event study. <i>Journal of Geophysical Research</i> , 1997 , 102, 4765-4776		25
74	Atmospheric Escape Processes and Planetary Atmospheric Evolution. <i>Journal of Geophysical Research: Space Physics</i> , 2020 , 125, e2019JA027639	2.6	24
73	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	24
72	Polar observations of convection with northward interplanetary magnetic field at dayside high latitudes. <i>Journal of Geophysical Research</i> , 1998 , 103, 29-45		23
71	Relation between cusp and mantle in MHD simulation. <i>Journal of Geophysical Research</i> , 2001 , 106, 10743-10749	2.2	22
70	MHD Simulation of Magnetospheric Transport at the Mesoscale. <i>Geophysical Monograph Series</i> , 2013 , 229-240	1.1	21
69	Anomalously low geomagnetic energy inputs during 2008 solar minimum. <i>Journal of Geophysical Research</i> , 2012 , 117, n/a-n/a		21
68	Flow-through magnetic reconnection. <i>Geophysical Research Letters</i> , 2002 , 29, 4-1	4.9	21

67	Observations of simultaneous effects of merging in both hemispheres. <i>Journal of Geophysical Research</i> , 2001 , 106, 24551-24577		21
66	Observation of the magnetospheric cusp and its implications relative to solar-wind/magnetospheric coupling: A multisatellite event analysis. <i>Journal of Geophysical Research</i> , 2001 , 106, 6097-6122		21
65	Response of ionospheric convection to changes in the interplanetary magnetic field: Lessons from a MHD simulation. <i>Journal of Geophysical Research</i> , 2001 , 106, 21429-21451		20
64	Magnetospheric cusp dependence on IMF direction. <i>Geophysical Research Letters</i> , 2001 , 28, 1921-1924	4.9	20
63	Variations of the polar cap potential measured during magnetospheric substorms. <i>Journal of Geophysical Research</i> , 1992 , 97, 3945		20
62	Intercalibration of neutral density measurements for mapping the thermosphere. <i>Journal of Geophysical Research: Space Physics</i> , 2016 , 121, 5975-5990	2.6	19
61	Geomagnetic response to solar wind dynamic pressure impulse events at high-latitude conjugate points. <i>Journal of Geophysical Research: Space Physics</i> , 2013 , 118, 6055-6071	2.6	18
60	Predictions of magnetosheath merging between IMF field lines of opposite polarity. <i>Journal of Geophysical Research</i> , 2002 , 107, SMP 23-1-SMP 23-14		18
59	High correlations between temperature and nitric oxide in the thermosphere. <i>Journal of Geophysical Research: Space Physics</i> , 2015 , 120, 5998-6009	2.6	17
58	An autonomous adaptive low-power instrument platform (AAL-PIP) for remote high-latitude geospace data collection. <i>Geoscientific Instrumentation, Methods and Data Systems</i> , 2014 , 3, 211-227	1.5	17
57	Geotail measurements compared with the motions of high-latitude auroral boundaries during two substorms. <i>Journal of Geophysical Research</i> , 1997 , 102, 9553-9572		17
56	Testing global storm-time electric field models using particle spectra on multiple spacecraft. <i>Journal of Geophysical Research</i> , 2002 , 107, SMP 21-1-SMP 21-11		17
55	Driving dayside convection with northward IMF: Observations by a sounding rocket launched from Svalbard. <i>Journal of Geophysical Research</i> , 2000 , 105, 5245-5263		17
54	Conjugate observations of traveling convection vortices associated with transient events at the magnetopause. <i>Journal of Geophysical Research: Space Physics</i> , 2015 , 120, 2015-2035	2.6	15
53	Low latitude thermospheric responses to magnetic storms. <i>Journal of Geophysical Research: Space Physics</i> , 2013 , 118, 3866-3876	2.6	15
52	Responses of the open/closed field line boundary in the evening sector to IMF changes: A source mechanism for Sun-aligned arcs. <i>Journal of Geophysical Research</i> , 2003 , 108, SMP 4-1		15
51	Deflected magnetosheath flow at the high-latitude magnetopause. <i>Journal of Geophysical Research</i> , 2000 , 105, 12851-12857		14
50	Wave and plasma observations during a compressional Pc 5 wave event August 10, 1982. <i>Journal of Geophysical Research</i> , 1986 , 91, 6884		14

49	Validity Study of the Swarm Horizontal Cross-Track Ion Drift Velocities in the High-Latitude Ionosphere. <i>Earth and Space Science</i> , 2019 , 6, 411-432	3.1	13
48	Thermospheric basis functions for improved dynamic calibration of semi-empirical models. <i>Space Weather</i> , 2012 , 10, n/a-n/a	3.7	13
47	Polar, Cluster and SuperDARN evidence for high-latitude merging during southward IMF: temporal/spatial evolution. <i>Annales Geophysicae</i> , 2003 , 21, 2233-2258	2	13
46	GEM-CEDAR challenge: Poynting flux at DMSP and modeled Joule heat. <i>Space Weather</i> , 2016 , 14, 113-135	3.7	12
45	Validation of an operational product to determine L1 to Earth propagation time delays. <i>Space Weather</i> , 2016 , 14, 93-112	3.7	12
44	A New Technique for the Mapping of Ionospheric Field-Aligned Currents from Satellite Magnetometer Data. <i>Geophysical Monograph Series</i> , 2000 , 381-388	1.1	11
43	Observed and predicted potential distributions during the October 1995 magnetic cloud passage. <i>Geophysical Research Letters</i> , 1998 , 25, 3023-3026	4.9	11
42	Correlations Between the Thermosphere's Semiannual Density Variations and Infrared Emissions Measured With the SABER Instrument. <i>Journal of Geophysical Research: Space Physics</i> , 2018 , 123, 8850-8864	2.6	11
41	Systematic Evaluation of Ionosphere/Thermosphere (IT) Models. <i>Geophysical Monograph Series</i> , 2014 , 145-160	1.1	10
40	Associating ground magnetometer observations with current or voltage generators. <i>Journal of Geophysical Research: Space Physics</i> , 2017 , 122, 7130-7141	2.6	10
39	Enhanced ion outflows measured by the DE 1 high altitude plasma instrument in the dayside plasmasphere during the recovery phase. <i>Journal of Geophysical Research</i> , 1985 , 90, 1653		10
38	Quantitative maps of geomagnetic perturbation vectors during substorm onset and recovery. <i>Journal of Geophysical Research: Space Physics</i> , 2015 , 120, 1197-1214	2.6	9
37	Improving Neutral Density Predictions Using Exospheric Temperatures Calculated on a Geodesic, Polyhedral Grid. <i>Space Weather</i> , 2020 , 18, e2019SW002355	3.7	9
36	Linear response of field-aligned currents to the interplanetary electric field. <i>Journal of Geophysical Research: Space Physics</i> , 2017 , 122, 8502-8515	2.6	8
35	Identification of magnetospheric particles that travel between spacecraft and their use to help obtain magnetospheric potential distributions. <i>Journal of Geophysical Research</i> , 1998 , 103, 93-102		8
34	DE 1 and Viking observations associated with electron conical distributions. <i>Journal of Geophysical Research</i> , 1994 , 99, 23673		8
33	Agreements between ground-based and satellite-based observations. <i>Planetary and Space Science</i> , 1990 , 38, 1533-1540	2	8
32	Field-aligned current response to solar indices. <i>Journal of Geophysical Research: Space Physics</i> , 2017 , 122, 5798-5815	2.6	7

31	Conjugate observations of electromagnetic ion cyclotron waves associated with traveling convection vortex events. <i>Journal of Geophysical Research: Space Physics</i> , 2017 , 122, 7336-7352	2.6	7
30	Interplanetary field enhancements travel at the solar wind speed. <i>Geophysical Research Letters</i> , 2010 , 37, n/a-n/a	4.9	7
29	Cusp geometry in MHD simulations. <i>Surveys in Geophysics</i> , 2005 , 26, 387-407	7.6	7
28	Stationary auroral current oscillations resulting from the magnetospheric generator. <i>Journal of Geophysical Research</i> , 1988 , 93, 11436		7
27	Plasma and field observations of a Pc 5 wave event. <i>Journal of Geophysical Research</i> , 1986 , 91, 11147		7
26	Observed and simulated depletion layers with southward IMF. <i>Annales Geophysicae</i> , 2004 , 22, 2151-2169		6
25	The Conductance of Auroral Magnetic Field Lines. <i>Geophysical Monograph Series</i> , 2013 , 108-113	1.1	5
24	SuperDARN-detected plasma convection vortices and the global plasma convection. <i>Journal of Geophysical Research</i> , 1998 , 103, 11653-11663		4
23	Temporal-spatial structure of magnetic merging at the magnetopause inferred from 557.7-nm all-sky images. <i>Annales Geophysicae</i> , 2004 , 22, 2917-2942	2	4
22	DE observations of electric field oscillations associated with an electron conic. <i>Journal of Geophysical Research</i> , 1998 , 103, 431-438		4
21	Interhemispheric Asymmetries in the Ground Magnetic Response to Interplanetary Shocks: The Role of Shock Impact Angle. <i>Space Weather</i> , 2020 , 18, e2019SW002427	3.7	3
20	How Might the Thermosphere and Ionosphere React to an Extreme Space Weather Event? 2018 , 513-539		3
19	Reply to comment by Haaland et al. on a new interpretation of Weimer et al.'s solar wind propagation delay technique. <i>Journal of Geophysical Research</i> , 2006 , 111,		3
18	Comparing a spherical harmonic model of the global electric field distribution with Astrid-2 observations. <i>Journal of Geophysical Research</i> , 2002 , 107, SMP 27-1		3
17	Empirical Modeling of the Geomagnetic Field for GIC Predictions. <i>Geophysical Monograph Series</i> , 2019 , 67-78	1.1	2
16	Electron signatures of active merging sites on the magnetopause. <i>Journal of Geophysical Research</i> , 2005 , 110,		2
15	Bifurcation of the Cusp: Implications for Understanding Boundary Layers. <i>Geophysical Monograph Series</i> , 2003 , 319-328	1.1	2
14	A Third Generation Field-Aligned Current Model. <i>Journal of Geophysical Research: Space Physics</i> , 2020 , 125, e2019JA027249	2.6	2

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| 13 | Testing the electrodynamic method to derive height-integrated ionospheric conductances. <i>Annales Geophysicae</i> , 2021 , 39, 31-51 | 2 | 2 |
| 12 | Derivation of Hemispheric Ionospheric Current Functions From Ground-Level Magnetic Fields. <i>Journal of Geophysical Research: Space Physics</i> , 2019 , 124, 3149-3161 | 2.6 | 1 |
| 11 | Comparison of the Hill-Biscoe polar cap potential theory with the Weimer and AMIE models. <i>Journal of Atmospheric and Solar-Terrestrial Physics</i> , 2010 , 72, 302-308 | 2 | 1 |
| 10 | Prediction of Alfvénic turbulence near the magnetospheric sash. <i>Planetary and Space Science</i> , 2002 , 50, 627-632 | 2 | 1 |
| 9 | Reply [to Comment on Substorm time constants] by D. R. Weimer. <i>Journal of Geophysical Research</i> , 1995 , 100, 5719 | | 1 |
| 8 | Autonomous Adaptive Low-Power Instrument Platform (AAL-PIP) for remote high latitude geospace data collection | | 1 |
| 7 | Polar Observations of Cusp Electrodynamics: Evolution from 2- to 4-Cell Convection Patterns 1998 , 157-172 | | 1 |
| 6 | Improved Neutral Density Predictions Through Machine Learning Enabled Exospheric Temperature Model. <i>Space Weather</i> , 2021 , 19, | 3.7 | 1 |
| 5 | Comparison of a Neutral Density Model With the SET HASDM Density Database. <i>Space Weather</i> , 2021 , 19, e2021SW002888 | 3.7 | 0 |
| 4 | Dayside Electrodynamic Observed by Polar with Northward IMF. <i>Geophysical Monograph Series</i> , 2013 , 13-23 | 1.1 | |
| 3 | Multi-spacecraft studies in aid of space weather specification and understanding. <i>COSPAR Colloquia Series</i> , 2002 , 181-189 | | |
| 2 | Reply [to Comment on The relationship between ionospheric convection and magnetic activity] by J.-H. Shue and D. R. Weimer. <i>Journal of Geophysical Research</i> , 1996 , 101, 11015-11015 | | |
| 1 | Cusp Geometry in MHD Simulations 2005 , 387-407 | | |