

Daniel R Weimer

List of Publications by Year in descending order

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119
papers

5,712
citations

101384

36
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79541

73
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131
all docs

131
docs citations

131
times ranked

2193
citing authors

#	ARTICLE	IF	CITATIONS
1	Improved ionospheric electrodynamic models and application to calculating Joule heating rates. Journal of Geophysical Research, 2005, 110, .	3.3	504
2	Models of high-latitude electric potentials derived with a least error fit of spherical harmonic coefficients. Journal of Geophysical Research, 1995, 100, 19595.	3.3	377
3	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.	3.3	320
4	A flexible, IMF dependent model of high-latitude electric potentials having "Space Weather" applications. Geophysical Research Letters, 1996, 23, 2549-2552.	1.5	310
5	The theta aurora. Journal of Geophysical Research, 1986, 91, 3177-3224.	3.3	270
6	Predicting interplanetary magnetic field (IMF) propagation delay times using the minimum variance technique. Journal of Geophysical Research, 2003, 108, .	3.3	229
7	Hill model of transpolar potential saturation: Comparisons with MHD simulations. Journal of Geophysical Research, 2002, 107, SMP 8-1.	3.3	226
8	IMF B_y -dependent plasma flow and Birkeland currents in the dayside magnetosphere: 1. Dynamics Explorer observations. Journal of Geophysical Research, 1985, 90, 1577-1593.	3.3	217
9	Auroral zone electric fields from DE 1 and 2 at magnetic conjunctions. Journal of Geophysical Research, 1985, 90, 7479-7494.	3.3	190
10	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.	3.3	167
11	Community-wide validation of geospace model ground magnetic field perturbation predictions to support model transition to operations. Space Weather, 2013, 11, 369-385.	1.3	136
12	The Magnetospheric Sash and the Cross-Tail S. Geophysical Research Letters, 1998, 25, 1605-1608.	1.5	107
13	Variable time delays in the propagation of the interplanetary magnetic field. Journal of Geophysical Research, 2002, 107, SMP 29-1-SMP 29-15.	3.3	101
14	Predicting surface geomagnetic variations using ionospheric electrodynamic models. Journal of Geophysical Research, 2005, 110, .	3.3	100
15	Geoeffective interplanetary scale sizes derived from regression analysis of polar cap potentials. Journal of Geophysical Research, 1999, 104, 9989-9994.	3.3	74
16	The current-voltage relationship in auroral current sheets. Journal of Geophysical Research, 1987, 92, 187-194.	3.3	73
17	Correction to "Predicting interplanetary magnetic field (IMF) propagation delay times using the minimum variance technique". Journal of Geophysical Research, 2004, 109, .	3.3	72
18	Geospace Environment Modeling 2008-2009 Challenge: Ground magnetic field perturbations. Space Weather, 2011, 9, .	1.3	71

#	ARTICLE	IF	CITATIONS
19	Global role of E _z in magnetopause reconnection: An explicit demonstration. <i>Journal of Geophysical Research</i> , 2001, 106, 13015-13022.	3.3	68
20	Improved calculations of interplanetary magnetic field phase front angles and propagation time delays. <i>Journal of Geophysical Research</i> , 2008, 113, .	3.3	68
21	CEDAR Electrodynamics 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, .	1.3	65
22	Response of the thermosphere to Joule heating and particle precipitation. <i>Journal of Geophysical Research</i> , 2006, 111, .	3.3	61
23	Global geometry of magnetospheric currents inferred from MHD simulations. <i>Geophysical Monograph Series</i> , 2000, , 41-52.	0.1	60
24	Atmospheric Escape Processes and Planetary Atmospheric Evolution. <i>Journal of Geophysical Research: Space Physics</i> , 2020, 125, e2019JA027639.	0.8	58
25	Substorm influence on the ionospheric electric potentials and currents. <i>Journal of Geophysical Research</i> , 1999, 104, 185-197.	3.3	53
26	Magnetospheric boundary dynamics: DE 1 and DE 2 observations near the magnetopause and cusp. <i>Journal of Geophysical Research</i> , 1991, 96, 3505-3522.	3.3	52
27	Substorm time constants. <i>Journal of Geophysical Research</i> , 1994, 99, 11005.	3.3	50
28	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, .	3.3	50
29	Polar cap potentials and the auroral electrojet indices. <i>Planetary and Space Science</i> , 1990, 38, 1207-1222.	0.9	47
30	An empirical model of ground-level geomagnetic perturbations. <i>Space Weather</i> , 2013, 11, 107-120.	1.3	45
31	Saturation of the auroral electrojet current and the polar cap potential. <i>Journal of Geophysical Research</i> , 1990, 95, 18981-18987.	3.3	43
32	Statistical maps of geomagnetic perturbations as a function of the interplanetary magnetic field. <i>Journal of Geophysical Research</i> , 2010, 115, .	3.3	43
33	The relationship between ionospheric convection and magnetic activity. <i>Journal of Geophysical Research</i> , 1994, 99, 401.	3.3	41
34	Energy coupling during the August 2011 magnetic storm. <i>Journal of Geophysical Research: Space Physics</i> , 2014, 119, 1219-1232.	0.8	41
35	Electric and magnetic observations of the structure of standing waves in the magnetosphere. <i>Journal of Geophysical Research</i> , 1986, 91, 8895-8907.	3.3	38
36	A new interpretation of Weimer et al.'s solar wind propagation delay technique. <i>Journal of Geophysical Research</i> , 2005, 110, .	3.3	38

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37	Velocity shears and sub- ϵ m scale irregularities in the nighttime auroral F ϵ region. Geophysical Research Letters, 1986, 13, 101-104.	1.5	36
38	Large-amplitude auroral electric fields measured with DE 1. Journal of Geophysical Research, 1993, 98, 13557-13564.	3.3	35
39	Satellite measurements through the center of a substorm surge. Journal of Geophysical Research, 1994, 99, 23639.	3.3	35
40	Multiple discrete-energy ion features in the inner magnetosphere: 9 February 1998, event. Annales Geophysicae, 2004, 22, 1297-1304.	0.6	34
41	Simulations of the magnetosphere for zero interplanetary magnetic field: The ground state. Journal of Geophysical Research, 2001, 106, 29419-29434.	3.3	33
42	Consequences of a saturated convection electric field on the ring current. Geophysical Research Letters, 2002, 29, 62-1-62-4.	1.5	33
43	MHD properties of magnetosheath flow. Planetary and Space Science, 2002, 50, 461-471.	0.9	33
44	The two-way relationship between ionospheric outflow and the ring current. Journal of Geophysical Research: Space Physics, 2015, 120, 4338-4353.	0.8	33
45	How wide in magnetic local time is the cusp? An event study. Journal of Geophysical Research, 1997, 102, 4765-4776.	3.3	32
46	Storm time global thermosphere: A driven-dissipative thermodynamic system. Journal of Geophysical Research, 2009, 114, .	3.3	32
47	Polar observations of convection with northward interplanetary magnetic field at dayside high latitudes. Journal of Geophysical Research, 1998, 103, 29-45.	3.3	30
48	Predicting global average thermospheric temperature changes resulting from auroral heating. Journal of Geophysical Research, 2011, 116, n/a-n/a.	3.3	29
49	MHD Simulation of Magnetospheric Transport at the Mesoscale. Geophysical Monograph Series, 2013, , 229-240.	0.1	29
50	Community-wide validation of geospace model local K ϵ index predictions to support model transition to operations. Space Weather, 2016, 14, 469-480.	1.3	27
51	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.	0.6	26
52	Intercalibration of neutral density measurements for mapping the thermosphere. Journal of Geophysical Research: Space Physics, 2016, 121, 5975-5990.	0.8	26
53	Observations of simultaneous effects of merging in both hemispheres. Journal of Geophysical Research, 2001, 106, 24551-24577.	3.3	25
54	Observation of the magnetospheric ϵ oesash ϵ and its implications relative to solar-wind/magnetospheric coupling: A multisatellite event analysis. Journal of Geophysical Research, 2001, 106, 6097-6122.	3.3	24

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55	Variations of the polar cap potential measured during magnetospheric substorms. <i>Journal of Geophysical Research</i> , 1992, 97, 3945-3951.	3.3	22
56	Relation between cusp and mantle in MHD simulation. <i>Journal of Geophysical Research</i> , 2001, 106, 10743-10749.	3.3	22
57	Flow-through magnetic reconnection. <i>Geophysical Research Letters</i> , 2002, 29, 4-1.	1.5	22
58	Anomalously low geomagnetic energy inputs during 2008 solar minimum. <i>Journal of Geophysical Research</i> , 2012, 117, .	3.3	22
59	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.	3.3	21
60	High correlations between temperature and nitric oxide in the thermosphere. <i>Journal of Geophysical Research: Space Physics</i> , 2015, 120, 5998-6009.	0.8	21
61	Magnetospheric sash dependence on IMF direction. <i>Geophysical Research Letters</i> , 2001, 28, 1921-1924.	1.5	20
62	GEMâ€CEDAR challenge: Poynting flux at DMSP and modeled Joule heat. <i>Space Weather</i> , 2016, 14, 113-135.	1.3	20
63	Validity Study of the Swarm Horizontal Crossâ€Track Ion Drift Velocities in the Highâ€Latitude Ionosphere. <i>Earth and Space Science</i> , 2019, 6, 411-432.	1.1	20
64	Driving dayside convection with northward IMF: Observations by a sounding rocket launched from Svalbard. <i>Journal of Geophysical Research</i> , 2000, 105, 5245-5263.	3.3	19
65	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.	3.3	19
66	Responses of the openâ€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.	3.3	19
67	Geomagnetic response to solar wind dynamic pressure impulse events at highâ€latitude conjugate points. <i>Journal of Geophysical Research: Space Physics</i> , 2013, 118, 6055-6071.	0.8	19
68	Geotail measurements compared with the motions of high-latitude auroral boundaries during two substorms. <i>Journal of Geophysical Research</i> , 1997, 102, 9553-9572.	3.3	18
69	Deflected magnetosheath flow at the high-latitude magnetopause. <i>Journal of Geophysical Research</i> , 2000, 105, 12851-12857.	3.3	18
70	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.	3.3	18
71	Polar, Cluster and SuperDARN evidence for high-latitude merging during southward IMF: temporal/spatial evolution. <i>Annales Geophysicae</i> , 2003, 21, 2233-2258.	0.6	18
72	Low latitude thermospheric responses to magnetic storms. <i>Journal of Geophysical Research: Space Physics</i> , 2013, 118, 3866-3876.	0.8	18

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73	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.	0.8	18
74	Improving Neutral Density Predictions Using Exospheric Temperatures Calculated on a Geodesic, Polyhedral Grid. <i>Space Weather</i> , 2020, 18, e2019SW002355.	1.3	18
75	Thermospheric basis functions for improved dynamic calibration of semi-empirical models. <i>Space Weather</i> , 2012, 10, .	1.3	17
76	Associating ground magnetometer observations with current or voltage generators. <i>Journal of Geophysical Research: Space Physics</i> , 2017, 122, 7130-7141.	0.8	17
77	Wave and plasma observations during a compressional Pc 5 wave event August 10, 1982. <i>Journal of Geophysical Research</i> , 1986, 91, 6884-6898.	3.3	15
78	Validation of an operational product to determine L1 to Earth propagation time delays. <i>Space Weather</i> , 2016, 14, 93-112.	1.3	14
79	A new technique for the mapping of ionospheric field-aligned currents from satellite magnetometer data. <i>Geophysical Monograph Series</i> , 2000, , 381-388.	0.1	13
80	Observed and predicted potential distributions during the October 1995 magnetic cloud passage. <i>Geophysical Research Letters</i> , 1998, 25, 3023-3026.	1.5	11
81	Linear response of field-aligned currents to the interplanetary electric field. <i>Journal of Geophysical Research: Space Physics</i> , 2017, 122, 8502-8515.	0.8	11
82	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.	0.8	11
83	Interhemispheric Asymmetries in the Ground Magnetic Response to Interplanetary Shocks: The Role of Shock Impact Angle. <i>Space Weather</i> , 2020, 18, e2019SW002427.	1.3	11
84	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, 1653-1668.	3.3	10
85	Observed and simulated depletion layers with southward IMF. <i>Annales Geophysicae</i> , 2004, 22, 2151-2169.	0.6	10
86	Quantitative maps of geomagnetic perturbation vectors during substorm onset and recovery. <i>Journal of Geophysical Research: Space Physics</i> , 2015, 120, 1197-1214.	0.8	10
87	Field-aligned current response to solar indices. <i>Journal of Geophysical Research: Space Physics</i> , 2017, 122, 5798-5815.	0.8	10
88	Agreements between ground-based and satellite-based observations. <i>Planetary and Space Science</i> , 1990, 38, 1533-1540.	0.9	9
89	DE 1 and Viking observations associated with electron conical distributions. <i>Journal of Geophysical Research</i> , 1994, 99, 23673.	3.3	9
90	Plasma and field observations of a Pc 5 wave event. <i>Journal of Geophysical Research</i> , 1986, 91, 11147-11161.	3.3	8

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91	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.	3.3	8
92	Interplanetary field enhancements travel at the solar wind speed. <i>Geophysical Research Letters</i> , 2010, 37, .	1.5	8
93	Stationary auroral current oscillations resulting from the magnetospheric generator. <i>Journal of Geophysical Research</i> , 1988, 93, 11436-11444.	3.3	7
94	Cusp geometry in MHD simulations. <i>Surveys in Geophysics</i> , 2005, 26, 387-407.	2.1	7
95	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.	0.8	7
96	A Third Generation Field-Aligned Current Model. <i>Journal of Geophysical Research: Space Physics</i> , 2020, 125, e2019JA027249.	0.8	7
97	Improved Neutral Density Predictions Through Machine Learning Enabled Exospheric Temperature Model. <i>Space Weather</i> , 2021, 19, .	1.3	6
98	DE observations of electric field oscillations associated with an electron conic. <i>Journal of Geophysical Research</i> , 1998, 103, 431-438.	3.3	5
99	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.	3.3	5
100	The Conductance of Auroral Magnetic Field Lines. <i>Geophysical Monograph Series</i> , 0, , 108-113.	0.1	5
101	SuperDARN-detected plasma convection vortices and the global plasma convection. <i>Journal of Geophysical Research</i> , 1998, 103, 11653-11663.	3.3	4
102	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.	0.6	4
103	How Might the Thermosphere and Ionosphere React to an Extreme Space Weather Event?. , 2018, , 513-539.		4
104	Comparison of a Neutral Density Model With the SET HASDM Density Database. <i>Space Weather</i> , 2021, 19, e2021SW002888.	1.3	4
105	Bifurcation of the cusp: Implications for understanding boundary layers. <i>Geophysical Monograph Series</i> , 2003, , 319-328.	0.1	3
106	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, .	3.3	3
107	Testing the electrodynamic method to derive height-integrated ionospheric conductances. <i>Annales Geophysicae</i> , 2021, 39, 31-51.	0.6	3
108	Electron signatures of active merging sites on the magnetopause. <i>Journal of Geophysical Research</i> , 2005, 110, .	3.3	2

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109	Reply [to "Comment on "Substorm time constants" by D. R. Weimer]. Journal of Geophysical Research, 1995, 100, 5719.	3.3	1
110	Prediction of Alfvénic turbulence near the magnetospheric sash. Planetary and Space Science, 2002, 50, 627-632.	0.9	1
111	Correction to "Improved calculations of IMF phase-front angles and propagation time delays". Journal of Geophysical Research, 2008, 113, n/a-n/a.	3.3	1
112	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.	0.6	1
113	Derivation of Hemispheric Ionospheric Current Functions From Ground-Level Magnetic Fields. Journal of Geophysical Research: Space Physics, 2019, 124, 3149-3161.	0.8	1
114	Polar Observations of Cusp Electrodynamics: Evolution from 2- to 4-Cell Convection Patterns. , 1998, , 157-172.		1
115	Cusp Geometry in MHD Simulations. , 2005, , 387-407.		1
116	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.	3.3	0
117	Multi-spacecraft studies in aid of space weather specification and understanding. COSPAR Colloquia Series, 2002, , 181-189.	0.2	0
118	Dayside Electrodynamics Observed by Polar with Northward IMF. Geophysical Monograph Series, 0, , 13-23.	0.1	0
119	Modes of mesoscale magnetospheric dynamics - Dependence on IMF orientation. , 2000, , .		0