Aaron J Ridley

List of Publications by Year
in descending order

262 papers	9,453 citations	38720 50 h-index	56687 83 g-index
277 all docs	277 docs citations	277 times ranked	4239 citing authors

#	Article	IF	Citations
1	Space Weather Modeling Framework: A new tool for the space science community. Journal of Geophysical Research, 2005, 110, .	3.3	631
2	The global ionosphereâ€“thermosphere model. Journal of Atmospheric and Solar-Terrestrial Physics, 2006, 68, 839-864.	0.6	392
3	Ionospheric control of the magnetosphere: conductance. Annales Geophysicae, 2004, 22, 567-584.	0.6	342
4	New Ocean Winds Satellite Mission to Probe Hurricanes and Tropical Convection. Bulletin of the American Meteorological Society, 2016, 97, 385-395.	1.7	285
5	Modeling a space weather event from the Sun to the Earth: CME generation and interplanetary propagation. Journal of Geophysical Research, 2004, 109, .	3.3	238
6	A statistical study of the ionospheric convection response to changing interplanetary magnetic field conditions using the assimilative mapping of ionospheric electrodynamics technique. Journal of Geophysical Research, 1998, 103, 4023-4039.	3.3	210
7	Coupling of a global MHD code and an inner magnetospheric model: Initial results. Journal of Geophysical Research, 2004, 109, .	3.3	203
8	A New Paradigm in Earth Environmental Monitoring with the CYGNSS Small Satellite Constellation. Scientific Reports, 2018, 8, 8782.	1.6	195
9	Communityâ€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
10	A model-derived storm time asymmetric ring current driven electric field description. Journal of Geophysical Research, 2002, 107, SMP 2-1-SMP 2-12.	3.3	131
11	The CYGNSS nanosatellite constellation hurricane mission. , 2012, , .		126
12	MAGNETOSPHERIC STRUCTURE AND ATMOSPHERIC JOULE HEATING OF HABITABLE PLANETS ORBITING M-DWARF STARS. Astrophysical Journal, 2014, 790, 57.	1.6	124
13	MultistepDstdevelopment and ring current composition changes during the 4-6 June 1991 magnetic storm. Journal of Geophysical Research, 2002, 107, SMP 33-1-SMP 33-22.	3.3	108
14	Magnetospheric configuration and dynamics of Saturn's magnetosphere: A global MHD simulation. Journal of Geophysical Research, 2012, 117, .	3.3	103
15	Transpolar potential saturation models compared. Journal of Geophysical Research, 2004, 109, .	3.3	98
16	Sun-to-thermosphere simulation of the 28-30 October 2003 storm with the Space Weather Modeling Framework. Space Weather, 2007, 5, n/a-n/a.	1.3	97
17	Midlatitude Plasma Bubbles Over China and Adjacent Areas During a Magnetic Storm on 8 September 2017. Space Weather, 2018, 16, 321-331.	1.3	95
18	Saturation of the polar cap potential: Inference from AlfvÃ©n wing arguments. Journal of Geophysical Research, 2008, 113, .	3.3	89

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19	Computational analysis of the near-Earth magnetospheric current system during two-phase decay storms. Journal of Geophysical Research, 2001, 106, 29531-29542.	3.3	88
20	Polar cap index comparisons with AMIE cross polar cap potential, electric field, and polar cap area. Geophysical Research Letters, 2004, 31, n/a-n/a.	1.5	87
21	Neutral Upper Atmosphere and Ionosphere Modeling. Space Science Reviews, 2008, 139, 107-141.	3.7	85
22	A large-scale traveling ionospheric disturbance during the magnetic storm of 15 September 1999. Journal of Geophysical Research, 2002, 107, SIA 5-1.	3.3	81
23	Assessment of the nonâ€hydrostatic effect on the upper atmosphere using a general circulation model (GCM). Geophysical Research Letters, 2008, 35, .	1.5	81
24	Dependence of plasmaspheric morphology on the electric field description during the recovery phase of the 17 April 2002 magnetic storm. Journal of Geophysical Research, 2004, 109, .	3.3	77
25	On the generation/decay of the stormâ€enhanced density plumes: Role of the convection flow and fieldâ€aligned ion flow. Journal of Geophysical Research: Space Physics, 2014, 119, 8543-8559.	0.8	74
26	Multiscale modeling of magnetospheric reconnection. Journal of Geophysical Research, 2007, 112, .	3.3	72
27	Geospace Environment Modeling 2008â€“2009 Challenge: Ground magnetic field perturbations. Space Weather, 2011, 9, .	1.3	71
28	CEDAR Electrodynamics Thermosphere Ionosphere (ETI) Challenge for systematic assessment of ionosphere/thermosphere models: NmF2, hmF2, and vertical drift using groundâ€based observations. Space Weather, 2011, 9, .	1.3	71
29	Possible reasons for underestimating Joule heating in global models: E field variability, spatial resolution, and vertical velocity. Journal of Geophysical Research, 2007, 112, .	3.3	70
30	Ionospheric convection during nonsteady interplanetary magnetic field conditions. Journal of Geophysical Research, 1997, 102, 14563-14579.	3.3	68
31	Parametric analysis of nightside conductance effects on inner magnetospheric dynamics for the 17 April 2002 storm. Journal of Geophysical Research, 2005, 110, .	3.3	65
32	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, .	1.3	65
33	Using steady state MHD results to predict the global state of the magnetosphere-ionosphere system. Journal of Geophysical Research, 2001, 106, 30067-30076.	3.3	64
34	Impact of the altitudinal Joule heating distribution on the thermosphere. Journal of Geophysical Research, 2011, 116, .	3.3	63
35	Transformation of high-latitude ionosphericFregion patches into blobs during the March 21, 1990, storm. Journal of Geophysical Research, 2000, 105, 5215-5230.	3.3	62
36	Solution-adaptive magnetohydrodynamics for space plasmas: sun-to-earth simulations. Computing in Science and Engineering, 2004, 6, 14-35.	1.2	62

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37	The magnetospheric and ionospheric response to a very strong interplanetary shock and coronal mass ejection. Advances in Space Research, 2006, 38, 263-272.	1.2	62
38	University of Michigan MHD results of the Geospace Global Circulation Model metrics challenge. Journal of Geophysical Research, 2002, 107, SMP 12-1.	3.3	61
39	Strong bulk plasma acceleration in Earth's magnetosheath: A magnetic slingshot effect?. Geophysical Research Letters, 2007, 34, .	1.5	61
40	Theoretical study: Influence of different energy sources on the cusp neutral density enhancement. Journal of Geophysical Research: Space Physics, 2013, 118, 2340-2349.	0.8	61
41	Validation of the space weather modeling framework using groundâ€based magnetometers. Space Weather, 2008, 6, .	1.3	59
42	Validation of SWMF magnetic field and plasma. Space Weather, 2010, 8, n/a-n/a.	1.3	59
43	Merging of Storm Time Midlatitude Traveling Ionospheric Disturbances and Equatorial Plasma Bubbles. Space Weather, 2019, 17, 285-298.	1.3	58
44	Ionospheric control of the magnetospheric configuration: Thermospheric neutral winds. Journal of Geophysical Research, 2003, 108, .	3.3	57
45	Global MHD simulations of Saturn's magnetosphere at the time of Cassini approach. Geophysical Research Letters, 2005, 32, .	1.5	57
46	AlfvÃ©n wings at Earth's magnetosphere under strong interplanetary magnetic fields. Annales Geophysicae, 2007, 25, 533-542.	0.6	57
47	High-latitude Joule heating response to IMF inputs. Journal of Geophysical Research, 2005, 110, .	3.3	54
48	Modeling the thermospheric response to solar flares. Journal of Geophysical Research, 2008, 113, .	3.3	54
49	Multiâ€instrument observations of SED during 24â€“25 October 2011 storm: Implications for SED formation processes. Journal of Geophysical Research: Space Physics, 2013, 118, 7798-7809.	0.8	53
50	A new formulation for the ionospheric cross polar cap potential including saturation effects. Annales Geophysicae, 2005, 23, 3533-3547.	0.6	52
51	Understanding storm-time ring current development through data-model comparisons of a moderate storm. Journal of Geophysical Research, 2007, 112, n/a-n/a.	3.3	51
52	Statistical study of the subauroral polarization stream: Its dependence on the crossâ€polar cap potential and subauroral conductance. Journal of Geophysical Research, 2008, 113, .	3.3	50
53	Dependence of neutral winds on convection E-field, solar EUV, and auroral particle precipitation at high latitudes. Journal of Geophysical Research, 2006, 111, .	3.3	49
54	Dynamical effects of internal gravity waves in the equinoctial thermosphere. Journal of Atmospheric and Solar-Terrestrial Physics, 2012, 90-91, 104-116.	0.6	49

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55	Effects of seasonal changes in the ionospheric conductances on magnetospheric field-aligned currents. Geophysical Research Letters, 2007, 34, .	1.5	48
56	Exploring the influence of ionospheric O⁺ outflow on magnetospheric dynamics: dependence on the source location. Journal of Geophysical Research: Space Physics, 2013, 118, 1711-1722.	0.8	48
57	Waves on the dusk flank boundary layer during very northward interplanetary magnetic field conditions: Observations and simulation. Journal of Geophysical Research, 2007, 112, .	3.3	47
58	Polar wind outflow model: Saturn results. Journal of Geophysical Research, 2007, 112, n/a-n/a.	3.3	45
59	Data assimilation and driver estimation for the Global Ionosphereâ€“Thermosphere Model using the Ensemble Adjustment Kalman Filter. Journal of Atmospheric and Solar-Terrestrial Physics, 2013, 104, 126-136.	0.6	44
60	Assessing the Quality of Models of the Ambient Solar Wind. Space Weather, 2018, 16, 1644-1667.	1.3	44
61	Multi-instrument analysis of the ionospheric signatures of a hot flow anomaly occurring on July 24, 1996. Journal of Geophysical Research, 1998, 103, 23357-23372.	3.3	43
62	Open-closed field line boundary position: A parametric study using an MHD model. Journal of Geophysical Research, 2004, 109, .	3.3	43
63	Modeling ionospheric <I>fo</I>F2 by using empirical orthogonal function analysis. Annales Geophysicae, 2011, 29, 1501-1515.	0.6	43
64	A global model: Empirical orthogonal function analysis of total electron content 1999â€“2009 data. Journal of Geophysical Research, 2012, 117, .	3.3	43
65	Numerical considerations in simulating the global magnetosphere. Annales Geophysicae, 2010, 28, 1589-1614.	0.6	42
66	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
67	An empirical model of the ionospheric electric potential. Geophysical Research Letters, 2000, 27, 3675-3678.	1.5	41
68	Exploring sources of magnetospheric plasma using multispecies MHD. Journal of Geophysical Research, 2010, 115, .	3.3	41
69	The nightside poleward boundary of the auroral oval as seen by DMSP and the Ultraviolet Imager. Journal of Geophysical Research, 2000, 105, 21267-21280.	3.3	40
70	A new ionospheric electron precipitation module coupled with RAMâ€SCB within the geospace general circulation model. Journal of Geophysical Research: Space Physics, 2016, 121, 8554-8575.	0.8	40
71	A statistical study of BRIs (SMCs), isolated substorms, and individual sawtooth injections. Journal of Geophysical Research, 2009, 114, .	3.3	39
72	Large-Scale Measurements of Thermospheric Dynamics with a Multisite Fabry-Perot Interferometer Network: Overview of Plans and Results from Midlatitude Measurements. International Journal of Geophysics, 2012, 2012, 1-10.	0.4	39

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73	High-latitude ionospheric response to a sudden impulse event during northward IMF conditions. Journal of Geophysical Research, 2000, 105, 2521-2531.	3.3	38
74	Modeling the Sun-to-Earth propagation of a very fast CME. Advances in Space Research, 2006, 38, 253-262.	1.2	38
75	Developing a selfâ€consistent description of Titan's upper atmosphere without hydrodynamic escape. Journal of Geophysical Research: Space Physics, 2014, 119, 4957-4972.	0.8	38
76	Analyzing electric field morphology through data-model comparisons of the Geospace Environment Modeling Inner Magnetosphere/Storm Assessment Challenge events. Journal of Geophysical Research, 2006, 111, .	3.3	37
77	Effects of Uncertainties in the Atmospheric Density on the Probability of Collision Between Space Objects. Space Weather, 2018, 16, 519-537.	1.3	37
78	Internal reconnection for northward interplanetary magnetic field. Journal of Geophysical Research, 2005, 110, .	3.3	36
79	Three-fluid Ohm's law. Journal of Geophysical Research, 2001, 106, 8149-8156.	3.3	35
80	Comparison of photometer and global MHD determination of the open-closed field line boundary. Journal of Geophysical Research, 2004, 109, .	3.3	35
81	Magnetospheric convection electric field dynamics andstormtime particle energization: case study of the magneticstorm of 4 May 1998. Annales Geophysicae, 2004, 22, 497-510.	0.6	34
82	Response of the magnetosphereâ€ionosphere system to a sudden southward turning of interplanetary magnetic field. Journal of Geophysical Research, 2009, 114, .	3.3	34
83	Simulating the oneâ€dimensional structure of Titan's upper atmosphere: 1. Formulation of the Titan Global Ionosphereâ€Thermosphere Model and benchmark simulations. Journal of Geophysical Research, 2010, 115, .	3.3	34
84	Consequences of a saturated convection electric field on the ring current. Geophysical Research Letters, 2002, 29, 62-1-62-4.	1.5	33
85	Statistical analysis of ionospheric potential patterns for isolated substorms and sawtooth events. Annales Geophysicae, 2006, 24, 1977-1991.	0.6	31
86	Adaptive Mesh Refinement for Global Magnetohydrodynamic Simulation. Lecture Notes in Physics, 2003, , 247-274.	0.3	30
87	Plasma Flow and Related Phenomena inÂPlanetaryÂAeronomy. Space Science Reviews, 2008, 139, 311-353.	3.7	30
88	Balanced reconnection intervals: four case studies. Annales Geophysicae, 2008, 26, 3897-3912.	0.6	30
89	Systematic evaluation of ground and geostationary magnetic field predictions generated by global magnetohydrodynamic models. Journal of Geophysical Research, 2010, 115, .	3.3	30
90	Geospace Environment Modeling 2008â€“2009 Challenge: Geosynchronous magnetic field. Space Weather, 2011, 9, .	1.3	30

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91	The NASA EV-2 Cyclone Global Navigation Satellite System (CYGNSS) mission. , 2013, , .		30
92	Seasonal dependence of northern highâ€latitude upper thermospheric winds: A quiet time climatological study based on groundâ€based and spaceâ€based measurements. Journal of Geophysical Research: Space Physics, 2017, 122, 2619-2644.	0.8	30
93	Effects of electric field methods on modeling the midlatitude ionospheric electrodynamics and inner magnetosphere dynamics. Journal of Geophysical Research: Space Physics, 2017, 122, 5321-5338.	0.8	30
94	Ionospheric observations of magnetospheric low-latitude boundary layer waves on August 4, 1991. Journal of Geophysical Research, 1995, 100, 21873-21884.	3.3	29
95	Validation of the Space Weather Modeling Framework using observations from CHAMP and DMSP. Space Weather, 2008, 6, .	1.3	29
96	Evidence for potential and inductive convection during intense geomagnetic events using normalized superposed epoch analysis. Journal of Geophysical Research: Space Physics, 2013, 118, 181-191.	0.8	29
97	Relationship Between Temporal and Spatial Resolution for a Constellation of GNSS-R Satellites. IEEE Journal of Selected Topics in Applied Earth Observations and Remote Sensing, 2019, 12, 16-25.	2.3	29
98	A semiempirical equatorial mapping of AMIE convection electric potentials (MACEP) for the January 10, 1997, magnetic storm. Journal of Geophysical Research, 2001, 106, 12903-12917.	3.3	28
99	Analyzing the hemispheric asymmetry in the thermospheric density response to geomagnetic storms. Journal of Geophysical Research, 2012, 117, .	3.3	28
100	On the performance of global magnetohydrodynamic models in the Earth's magnetosphere. Space Weather, 2013, 11, 313-326.	1.3	28
101	GITMâ€Data Comparisons of the Depletion and Enhancement During the 2017 Solar Eclipse. Geophysical Research Letters, 2018, 45, 3319-3327.	1.5	28
102	Role of vertical ion convection in the high-latitude ionospheric plasma distribution. Journal of Geophysical Research, 2006, 111, .	3.3	27
103	Simulating the oneâ€dimensional structure of Titan's upper atmosphere: 2. Alternative scenarios for methane escape. Journal of Geophysical Research, 2010, 115, .	3.3	27
104	Understanding the response of the ionosphere-magnetosphere system to sudden solar wind density increases. Journal of Geophysical Research, 2011, 116, n/a-n/a.	3.3	27
105	Maximizing photovoltaic power generation of a space-dart configured satellite. Acta Astronautica, 2015, 111, 283-299.	1.7	27
106	Seasonal Dependence of Geomagnetic Activeâ€Time Northern Highâ€Latitude Upper Thermospheric Winds. Journal of Geophysical Research: Space Physics, 2018, 123, 739-754.	0.8	27
107	MHD simulations of quadrupolar paleomagnetospheres. Journal of Geophysical Research, 2004, 109, .	3.3	26
108	A statistical comparison of the AMIE derived and DMSP-SSIES observed high-latitude ionospheric electric field. Journal of Geophysical Research, 2006, 111, .	3.3	26

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109	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
110	The Response of the Ionosphereâ€Thermosphere System to the 21 August 2017 Solar Eclipse. Journal of Geophysical Research: Space Physics, 2019, 124, 7341-7355.	0.8	26
111	Theoretical study of zonal differences of electron density at midlatitudes with GITM simulation. Journal of Geophysical Research: Space Physics, 2015, 120, 2951-2966.	0.8	25
112	The response of the magnetosphere-ionosphere system to a sudden dynamic pressure enhancement under southward IMF conditions. Annales Geophysicae, 2009, 27, 4391-4407.	0.6	25
113	Characterization of the dynamic variations of the dayside highâ€latitude ionospheric convection reversal boundary and relationship to interplanetary magnetic field orientation. Journal of Geophysical Research, 1996, 101, 10919-10938.	3.3	24
114	Field line resonant pulsations associated with a strong dayside ionospheric shear convection flow reversal. Journal of Geophysical Research, 1997, 102, 4585-4596.	3.3	24
115	Energy input into the upper atmosphere associated with high-speed solar wind streams in 2005. Journal of Geophysical Research, 2011, 116, .	3.3	24
116	Simulating the one-dimensional structure of Titan's upper atmosphere: 3. Mechanisms determining methane escape. Journal of Geophysical Research, 2011, 116, .	3.3	24
117	Retrospectiveâ€costâ€based adaptive model refinement for the ionosphere and thermosphere. Statistical Analysis and Data Mining, 2011, 4, 446-458.	1.4	24
118	Conductance Model for Extreme Events: Impact of Auroral Conductance on Space Weather Forecasts. Space Weather, 2020, 18, e2020SW002551.	1.3	24
119	Reply [to â€œComment on â€œA statistical study of the ionospheric convection response to changing interplanetary magnetic field conditions using the assimilative mapping of ionospheric electrodynamics techniqueâ€•by A.J. Ridley et al.â€]. Journal of Geophysical Research, 1999, 104, 4393-4396.	3.3	23
120	Stormtime particle energization with high temporal resolution AMIE potentials. Journal of Geophysical Research, 2004, 109, .	3.3	23
121	Selfâ€consistent model of magnetospheric electric field, ring current, plasmasphere, and electromagnetic ion cyclotron waves: Initial results. Journal of Geophysical Research, 2009, 114, .	3.3	23
122	Storm time response of the midlatitude thermosphere: Observations from a network of Fabryâ€Perot interferometers. Journal of Geophysical Research: Space Physics, 2014, 119, 6758-6773.	0.8	23
123	Origin of the interhemispheric potential mismatch of merging cells for interplanetary magnetic field B_Yâ€dominated periods. Journal of Geophysical Research, 2007, 112, .	3.3	22
124	Quiet-time low latitude ionospheric electrodynamics in the non-hydrostatic Global Ionosphereâ€“Thermosphere Model. Journal of Atmospheric and Solar-Terrestrial Physics, 2012, 80, 161-172.	0.6	22
125	Predictions of the solar wind speed by the probability distribution function model. Space Weather, 2014, 12, 337-353.	1.3	22
126	Atmospheric Gravity Waves in the Ionosphere and Thermosphere During the 2017 Solar Eclipse. Geophysical Research Letters, 2018, 45, 5246-5252.	1.5	22

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127	Validation of Ionospheric Specifications During Geomagnetic Storms: TEC and foF2 During the 2013 March Storm Event. Space Weather, 2018, 16, 1686-1701.	1.3	22
128	Global analysis of three traveling vortex events during the November 1993 storm using the assimilative mapping of ionospheric electrodynamics technique. Journal of Geophysical Research, 1998, 103, 26349-26358.	3.3	21
129	Dynamic response of Earth's magnetosphere toByreversals. Journal of Geophysical Research, 2003, 108, .	3.3	21
130	Technique: Large-scale ionospheric conductance estimated from combined satellite and ground-based electromagnetic data. Journal of Geophysical Research, 2007, 112, n/a-n/a.	3.3	21
131	Comparison of the observed dependence of large-scale Birkeland currents on solar wind parameters with that obtained from global simulations. Annales Geophysicae, 2011, 29, 1809-1826.	0.6	21
132	Electrodynamics of the highâ€latitude trough: Its relationship with convection flows and fieldâ€aligned currents. Journal of Geophysical Research: Space Physics, 2013, 118, 2565-2572.	0.8	21
133	Temporal evolution of the transpolar potential after a sharp enhancement in solar wind dynamic pressure. Geophysical Research Letters, 2008, 35, .	1.5	20
134	The effect of smoothed solar wind inputs on global modeling results. Journal of Geophysical Research, 2010, 115, .	3.3	20
135	Highâ€latitude ionospheric drivers and their effects on wind patterns in the thermosphere. Journal of Geophysical Research: Space Physics, 2015, 120, 715-735.	0.8	20
136	Comparison of the openâ€closed separatrix in a global magnetospheric simulation with observations: The role of the ring current. Journal of Geophysical Research, 2010, 115, .	3.3	19
137	PFISR observation of intense ion upflow fluxes associated with an SED during the 1 June 2013 geomagnetic storm. Journal of Geophysical Research: Space Physics, 2017, 122, 2589-2604.	0.8	19
138	A statistical analysis of the assimilative mapping of ionospheric electrodynamics auroral specification. Journal of Geophysical Research, 2005, 110, .	3.3	18
139	Simulation of non-hydrostatic gravity wave propagation in the upper atmosphere. Annales Geophysicae, 2014, 32, 443-447.	0.6	18
140	A Yearâ€Long Comparison of GPS TEC and Global Ionosphereâ€Thermosphere Models. Journal of Geophysical Research: Space Physics, 2018, 123, 1410-1428.	0.8	18
141	Comment on â€œNonlinear response of the polar ionosphere to large values of the interplanetary electric fieldâ€•by C. T. Russell et al.. Journal of Geophysical Research, 2002, 107, SIA 13-1-SIA 13-4.	3.3	17
142	Reconciling prediction algorithms forDst. Journal of Geophysical Research, 2005, 110, .	3.3	17
143	Effect of the altitudinal variation of the gravitational acceleration on the thermosphere simulation. Journal of Geophysical Research, 2008, 113, .	3.3	17
144	The effects of different solar flare characteristics on the global thermosphere. Journal of Atmospheric and Solar-Terrestrial Physics, 2011, 73, 1840-1848.	0.6	17

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145	Effects of high-latitude thermosphere heating at various scale sizes simulated by a nonhydrostatic global thermosphereâ€“ionosphere model. Journal of Atmospheric and Solar-Terrestrial Physics, 2011, 73, 592-600.	0.6	17
146	Solar wind density controlling penetration electric field at the equatorial ionosphere during a saturation of cross polar cap potential. Journal of Geophysical Research, 2012, 117, .	3.3	17
147	Rating global magnetosphere model simulations through statistical dataâ€model comparisons. Space Weather, 2016, 14, 819-834.	1.3	17
148	CEDARâ€GEM Challenge for Systematic Assessment of Ionosphere/Thermosphere Models in Predicting TEC During the 2006 December Storm Event. Space Weather, 2017, 15, 1238-1256.	1.3	17
149	Comparison of satellite ion drift velocities with AMIE deduced convection patterns. Journal of Atmospheric and Solar-Terrestrial Physics, 2005, 67, 1463-1479.	0.6	16
150	The outer radiation belt injection, transport, acceleration and loss satellite (ORBITALS): A canadian small satellite mission for ILWS. Advances in Space Research, 2006, 38, 1838-1860.	1.2	16
151	Importance of capturing heliospheric variability for studies of thermospheric vertical winds. Journal of Geophysical Research, 2012, 117, .	3.3	16
152	Thermospheric winds around the cusp region. Journal of Geophysical Research: Space Physics, 2015, 120, 1248-1255.	0.8	16
153	Multi-point observations and modeling of subauroral polarization streams (SAPS) and double-peak subauroral ion drifts (DSAIDs): A case study. Advances in Space Research, 2019, 63, 3522-3535.	1.2	16
154	Quantifying the effect of thermospheric parameterization in a global model. Journal of Atmospheric and Solar-Terrestrial Physics, 2009, 71, 2017-2026.	0.6	15
155	Modeling the ionospheric response to the 28 October 2003 solar flare due to coupling with the thermosphere. Radio Science, 2009, 44, .	0.8	15
156	An Ionosphere Specification Technique Based on Data Ingestion Algorithm and Empirical Orthogonal Function Analysis Method. Space Weather, 2018, 16, 1410-1423.	1.3	15
157	Comparison of Joule heating associated with high-speed solar wind between different models and observations. Journal of Atmospheric and Solar-Terrestrial Physics, 2012, 75-76, 5-14.	0.6	14
158	Exploring the influence of ionospheric O⁺ outflow on magnetospheric dynamics: The effect of outflow intensity. Journal of Geophysical Research: Space Physics, 2013, 118, 5522-5531.	0.8	14
159	Simulating electron and ion temperature in a global ionosphere thermosphere model: Validation and modeling an idealized substorm. Journal of Atmospheric and Solar-Terrestrial Physics, 2016, 138-139, 243-260.	0.6	14
160	The effect of ring current electron scattering rates on magnetosphereâ€ionosphere coupling. Journal of Geophysical Research: Space Physics, 2017, 122, 4168-4189.	0.8	14
161	Global 30â€“240 keV proton precipitation in the 17â€“18 April 2002 geomagnetic storms: 3. Impact on the ionosphere and thermosphere. Journal of Geophysical Research, 2007, 112, .	3.3	13
162	Global model comparison with Millstone Hill during September 2005. Journal of Geophysical Research, 2008, 113, .	3.3	13

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163	Quiet time observations of the openâ€closed boundary prior to the CIRâ€induced storm of 9 August 2008. Space Weather, 2011, 9, .	1.3	13
164	Retrospective-cost-based model refinement for system emulation and subsystem identification. , 2011, , .		13
165	The CYGNSS flight segment; A major NASA science mission enabled by micro-satellite technology. , 2013, , .		13
166	HLâ€TWiM Empirical Model of Highâ€Latitude Upper Thermospheric Winds. Journal of Geophysical Research: Space Physics, 2019, 124, 10592-10618.	0.8	13
167	Variations of the thermospheric nitric oxide mass mixing ratio as a function of Kp, altitude, and magnetic local time. Geophysical Research Letters, 1999, 26, 1541-1544.	1.5	12
168	The dependence of winter aurora on interplanetary parameters. Journal of Geophysical Research, 2003, 108, .	3.3	12
169	A parametric study of magnetosphereâ€“ionosphere coupling in the paleomagnetosphere. Advances in Space Research, 2006, 38, 1707-1712.	1.2	12
170	SWMF simulation of field-aligned currents for a varying northward and duskward IMF with nonzero dipole tilt. Annales Geophysicae, 2008, 26, 1461-1477.	0.6	12
171	Longâ€lasting goodshielding at the equatorial ionosphere. Journal of Geophysical Research, 2010, 115, .	3.3	12
172	Strong ionospheric fieldâ€aligned currents for radial interplanetary magnetic fields. Journal of Geophysical Research: Space Physics, 2014, 119, 3979-3995.	0.8	12
173	Retrospective-Cost-Based Adaptive Input and State Estimation for the Ionosphereâ€“Thermosphere. Journal of Aerospace Information Systems, 2015, 12, 767-783.	1.0	12
174	Relative Ionospheric Ranging Delay in LEO GNSS Oceanic Reflections. IEEE Geoscience and Remote Sensing Letters, 2015, 12, 1416-1420.	1.4	12
175	Hemispheric differences in the response of the upper atmosphere to the August 2011 geomagnetic storm: A simulation study. Journal of Atmospheric and Solar-Terrestrial Physics, 2016, 141, 13-26.	0.6	12
176	Thermospheric Weather as Observed by Groundâ€Based FPIs and Modeled by GITM. Journal of Geophysical Research: Space Physics, 2019, 124, 1307-1316.	0.8	12
177	Specification of the Ionosphere-Thermosphere Using the Ensemble Kalman Filter. Lecture Notes in Computer Science, 2015, , 274-283.	1.0	12
178	Plasma convection jets near the poleward boundary of the nightside auroral oval and their relation to Pedersen conductivity gradients. Annales Geophysicae, 2010, 28, 969-976.	0.6	12
179	Space Weather Forecasting. IEEE Control Systems, 2007, 27, 109-123.	1.0	11
180	Autonomous low-power magnetic data collection platform to enable remote high latitude array deployment. Review of Scientific Instruments, 2009, 80, 044501.	0.6	11

#	Article	IF	Citations
181	Cavities of weak magnetic field strength in the wake of FTEs: Results from global magnetospheric MHD simulations. Geophysical Research Letters, 2009, 36, .	1.5	11
182	Role of variability in determining the vertical wind speeds and structure. Journal of Geophysical Research, 2011, 116, n/a-n/a.	3.3	11
183	On the hemispheric symmetry in thermospheric nitric oxide. Geophysical Research Letters, 1999, 26, 1545-1548.	1.5	10
184	State Estimation for Large-Scale Systems Based on Reduced-Order Error-Covariance Propagation. Proceedings of the American Control Conference, 2007, , .	0.0	10
185	Reducing numerical diffusion in magnetospheric simulations. Journal of Geophysical Research, 2011, 116, n/a-n/a.	3.3	10
186	The Spacecraft Orbital Characterization Kit and its Applications to the CYGNSS Mission.. , 2018, , .		10
187	Modeling Study of the Geospace System Response to the Solar Wind Dynamic Pressure Enhancement on 17 March 2015. Journal of Geophysical Research: Space Physics, 2018, 123, 2974-2989.	0.8	10
188	Segmentation of SED by Boundary Flows Associated With Westward Drifting Partial Ring current. Geophysical Research Letters, 2019, 46, 7920-7928.	1.5	10
189	Quantifying the Storm Time Thermospheric Neutral Density Variations Using Model and Observations. Space Weather, 2019, 17, 269-284.	1.3	10
190	A PHYSICS-BASED SOFTWARE FRAMEWORK FOR SUN-EARTH CONNECTION MODELING. , 2005, , 383-397.		10
191	Modeling the ring current response to a sawtooth oscillation event. Journal of Atmospheric and Solar-Terrestrial Physics, 2007, 69, 67-76.	0.6	9
192	CubeSats to NanoSats; Bridging the gap between educational tools and science workhorses. , 2012, , .		9
193	Universal time effect in the response of the thermosphere to electric field changes. Journal of Geophysical Research: Space Physics, 2016, 121, 3681-3698.	0.8	9
194	Real-Time Specifications of the Geospace Environment. Space Science Reviews, 2003, 107, 307-316.	3.7	8
195	A Comparison of the Extended and Unscented Kalman Filters for Discrete-Time Systems with Nondifferentiable Dynamics. Proceedings of the American Control Conference, 2007, , .	0.0	8
196	Cholesky-based reduced-rank square-root Kalman filtering. , 2008, , .		8
197	PENGUIn multiâ€instrument observations of dayside highâ€latitude injections during the 23 March 2007 substorm. Journal of Geophysical Research, 2009, 114, .	3.3	8
198	Investigating the performance of simplified neutralâ€ion collisional heating rate in a global IT model. Journal of Geophysical Research: Space Physics, 2016, 121, 578-588.	0.8	8

#	Article	IF	Citations
199	New results on the mid-latitude midnight temperature maximum. Annales Geophysicae, 2018, 36, 541-553.	0.6	8
200	Joule heating associated with auroral electrojets during magnetospheric substorms. Journal of Geophysical Research, 2011, 116, .	3.3	7
201	Statistical study of the effect of ULF fluctuations in the IMF on the cross polar cap potential drop for northward IMF. Journal of Geophysical Research, 2011, 116, n/a-n/a.	3.3	7
202	Utilizing the polar cap index to explore strong driving of polar cap dynamics. Journal of Geophysical Research, 2012, 117, .	3.3	7
203	Dipole tilt effects on the magnetosphereâ€ionosphere convection system during interplanetary magnetic field B_Yâ€dominated periods: MHD modeling. Journal of Geophysical Research, 2010, 115, .	3.3	6
204	Adaptive State Estimation for Nonminimum-Phase Systems with Uncertain Harmonic Inputs. , 2011, , .		6
205	Daytime altitude variations of the equatorial, topside magnetic fieldâ€aligned ion transport at solar minimum. Journal of Geophysical Research: Space Physics, 2013, 118, 3568-3575.	0.8	6
206	Global response of the upper thermospheric winds to large ion drifts in the Jovian ovals. Journal of Geophysical Research: Space Physics, 2016, 121, 4647-4667.	0.8	6
207	Twentyâ€four hour predictions of the solar wind speed peaks by the probability distribution function model. Space Weather, 2016, 14, 861-873.	1.3	6
208	Assessment of the Differential Drag Maneuver Operations on the CYGNSS Constellation. IEEE Journal of Selected Topics in Applied Earth Observations and Remote Sensing, 2019, 12, 7-15.	2.3	6
209	FTA: A Feature Tracking Empirical Model of Auroral Precipitation. Space Weather, 2021, 19, e2020SW002629.	1.3	6
210	Global auroral imaging in the ILWS era. Advances in Space Research, 2007, 40, 409-418.	1.2	5
211	Reduced-rank unscented Kalman filtering using Cholesky-based decomposition. International Journal of Control, 2008, 81, 1779-1792.	1.2	5
212	Testing the necessity of transient spikes in the storm time ring current drivers. Journal of Geophysical Research, 2011, 116, n/a-n/a.	3.3	5
213	Retrospective Cost Optimization for Adaptive State Estimation, Input Estimation, and Model Refinement. Procedia Computer Science, 2013, 18, 1919-1928.	1.2	5
214	The effect of background conditions on the ionospheric response to solar flares. Journal of Geophysical Research: Space Physics, 2014, 119, 5060-5075.	0.8	5
215	Effect of the solar activity variation on the Global Ionosphere Thermosphere Model (GITM). Annales Geophysicae, 2016, 34, 725-736.	0.6	5
216	Lowâ€Density Cell of the Thermosphere at High Latitudes Revisited. Journal of Geophysical Research: Space Physics, 2019, 124, 521-533.	0.8	5

#	Article	IF	Citations
217	A Simple Method for Correcting Empirical Model Densities During Geomagnetic Storms Using Satellite Orbit Data. Space Weather, 2020, 18, e2020SW002565.	1.3	5
218	Changes in the Magnetic Field Topology and the Dayside/Nightside Reconnection Rates in Response to a Solar Wind Dynamic Pressure Front: A Case Study. Journal of Geophysical Research: Space Physics, 2021, 126, e2020JA028768.	0.8	5
219	Parallel, Adaptive-Mesh-Refinement MHD for Global Space-Weather Simulations. AIP Conference Proceedings, 2003, , .	0.3	4
220	Modeling subsolar thermospheric waves during a solar flare and penetration electric fields. Journal of Geophysical Research: Space Physics, 2014, 119, 10,507.	0.8	4
221	A simulation study of the thermosphere mass density response to substorms using GITM. Journal of Geophysical Research: Space Physics, 2015, 120, 7987-8001.	0.8	4
222	Response of the Geospace System to the Solar Wind Dynamic Pressure Decrease on 11 June 2017: Numerical Models and Observations. Journal of Geophysical Research: Space Physics, 2019, 124, 2613-2627.	0.8	4
223	Simulating the Solar Windâ€Magnetosphere Interaction During the Matuyamaâ€Brunhes Paleomagnetic Reversal. Geophysical Research Letters, 2022, 49, .	1.5	4
224	Global Driving of Auroral Precipitation: 1. Balance of Sources. Journal of Geophysical Research: Space Physics, 2022, 127, .	0.8	4
225	Construction of a particle climatology for the study of the effects of solar particle fluxes on the atmosphere. Advances in Space Research, 2002, 29, 1513-1522.	1.2	3
226	Localized data assimilation in the ionosphere-thermosphere using a sampled-data unscented Kalman filter. , 2008, , .		3
227	Comparative Study of Subauroral Polarization Streams with DMSP Observation and RAM Simulation. Chinese Journal of Geophysics, 2009, 52, 531-540.	0.2	3
228	Comparative study of a substorm event by satellite observation and model simulation. Science Bulletin, 2010, 55, 857-864.	1.7	3
229	Retrospective-Cost-Based Adaptive State Estimation and Input Reconstruction for the Global Ionosphere-Thermosphere Model. , 2012, , .		3
230	Thermosphereâ€Ionosphere Modeling With Forecastable Inputs: Case Study of the June 2012 Highâ€Speed Stream Geomagnetic Storm. Space Weather, 2020, 18, e2019SW002352.	1.3	3
231	Impacts of Lower Thermospheric Atomic Oxygen on Thermospheric Dynamics and Composition Using the Global Ionosphere Thermosphere Model. Journal of Geophysical Research: Space Physics, 2020, 125, e2020JA027877.	0.8	3
232	Estimation of Thermal-Conductivity Coefficients in the Global Ionosphereâ€"Thermosphere Model. Journal of Aerospace Information Systems, 2020, 17, 546-553.	1.0	3
233	Modeling of the solar wind originated energy input for the study of effects on the terrestrial thermosphere and ionosphere-introduction. Physics and Chemistry of the Earth, Part C: Solar, Terrestrial and Planetary Science, 2000, 25, 483-487.	0.2	2
234	Halloween Storm Simulations with the Space Weather Modeling Framework. , 2006, , .		2

#	Article	IF	Citations
235	NARMAX identification for space weather prediction using polynomial radial basis functions. , 2007, , .		2
236	Reduced-Order Covariance-Based Unscented Kalman Filtering with Complementary Steady-State Correlation. Proceedings of the American Control Conference, 2007, , .	0.0	2
237	Substorm onset dynamics in the magnetotail as derived from joint TC-1 and Cluster data analysis. Earth, Planets and Space, 2008, 60, 613-621.	0.9	2
238	Data assimilation for magnetohydrodynamics with a zero-divergence constraint on the magnetic field. , 2008, , .		2
239	CYGNSS: NASA Earth Venture Tropical Cyclone Mission. , 2014, , .		2
240	Estimation of the Eddy Diffusion Coefficient Using Total Electron Content Data. , 2018, , .		2
241	Impacts of Lower Thermospheric Atomic Oxygen and Dynamics on the Thermospheric Semiannual Oscillation Using GITM and WACCMâ€X. Journal of Geophysical Research: Space Physics, 2022, 127, .	0.8	2
242	Empirical modeling of particle precipitation and the study of effects on the terrestrial thermosphere and ionosphere. Physics and Chemistry of the Earth, Part C: Solar, Terrestrial and Planetary Science, 2000, 25, 489-493.	0.2	1
243	The geospace environment data analysis system. Advances in Space Research, 2003, 31, 807-812.	1.2	1
244	Non-potential electric field model of magnetosphere-ionosphere coupling. Geophysical Monograph Series, 2005, , 141-152.	0.1	1
245	Reduced-rank unscented Kalman filtering using Cholesky-based decomposition. , 2008, , .		1
246	A nonlinear observer for semidetectable chemical reactions with application to kinetic-rate-constant estimation. , 2009, , .		1
247	Neutral Upper Atmosphere and Ionosphere Modeling. Space Sciences Series of ISSI, 2008, , 107-141.	0.0	1
248	CYGNSS-based Ionospheric Electron Content Estimation: An Analysis. , 2014, , .		1
249	Geomagnetic disturbance intensity dependence on the universal timing of the storm peak. Journal of Geophysical Research: Space Physics, 2016, 121, 7561-7571.	0.8	1
250	Estimation of the thermospheric density using ephemerides of the CYGNSS and Swarm constellations. Journal of Atmospheric and Solar-Terrestrial Physics, 2021, 221, 105687.	0.6	1
251	Real-Time Specifications of the Geospace Environment. , 2003, , 307-316.		1
252	Development of an integrated predictive MHD space weather model from the solar surface to the Earth's upper atmosphere. COSPAR Colloquia Series, 2002, 12, 149-161.	0.2	0

#	Article	IF	Citations
253	Recursive estimation of terrestrial magnetic and electric potentials. , 2008, , .		0
254	Magnetic-field estimation using measurements from a floating buoy. , 2008, , .		0
255	Retrospective-Cost Subsystem Identification for the Global Ionosphere-Thermosphere Model. , 2012, , .		0
256	Community-wide model validation study for systematic assessment of ionosphere models. , 2015, , .		0
257	Improving the ionospheric specification in the Global Ionosphere Thermosphere Model. , 2015, , .		0
258	Enabling Sampling Properties of the Cygnss Satellite Constellation. , 2018, , .		0
259	Plasma Flow and Related Phenomena inÂPlanetaryÂAeronomy. Space Sciences Series of ISSI, 2008, , 311-353.	0.0	0
260	Statistical Characterization of GITM Thermospheric Horizontal Winds in Comparison to GOCE Estimations. Space Weather, 2022, 20, .	1.3	0
261	Fieldâ€Aligned Current During an Interval of B_Yâ€Dominated Interplanetaryâ€Field; Modeledâ€toâ€Observed Comparisons. Journal of Geophysical Research: Space Physics, 2021, 126, .	0.8	0
262	TWO MAJOR PROCESSES OF THE SOLAR WIND-MAGNETOSPHERE IONOSPHERE COUPLING. , 0, , 83-95.		0