Gang Lu

List of Publications by Year
in descending order

60 papers	3,692 citations	126907 33 h-index	128289 60 g-index
69 all docs	69 docs citations	69 times ranked	2004 citing authors

#	Article	IF	Citations
1	Global simulation of the Geospace Environment Modeling substorm challenge event. Journal of Geophysical Research, 2001, 106, 381-395.	3.3	232
2	Development and Validation of the Whole Atmosphere Community Climate Model With Thermosphere and Ionosphere Extension (WACCMâ€X 2.0). Journal of Advances in Modeling Earth Systems, 2018, 10, 381-402.	3.8	213
3	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
4	Theoretical study of the low- and midlatitude ionospheric electron density enhancement during the October 2003 superstorm: Relative importance of the neutral wind and the electric field. Journal of Geophysical Research, 2005, 110, .	3.3	185
5	Magnetosphere-ionosphere-thermosphere coupling: Effect of neutral winds on energy transfer and field-aligned current. Journal of Geophysical Research, 1995, 100, 19643.	3.3	164
6	Global energy deposition during the January 1997 magnetic cloud event. Journal of Geophysical Research, 1998, 103, 11685-11694.	3.3	159
7	Upper-atmospheric effects of magnetic storms: a brief tutorial. Journal of Atmospheric and Solar-Terrestrial Physics, 2000, 62, 1115-1127.	1.6	148
8	Global impact of ionospheric outflows on the dynamics of the magnetosphere and cross-polar cap potential. Journal of Geophysical Research, 2002, 107, SMP 11-1.	3.3	116
9	A dayside ionospheric positive storm phase driven by neutral winds. Journal of Geophysical Research, 2008, 113, .	3.3	106
10	Interhemispheric asymmetry of the high-latitude ionospheric convection pattern. Journal of Geophysical Research, 1994, 99, 6491.	3.3	105
11	Energy transport in the thermosphere during the solar storms of April 2002. Journal of Geophysical Research, 2005, 110, .	3.3	105
12	Parameterization of monoenergetic electron impact ionization. Geophysical Research Letters, 2010, 37, .	4.0	93
13	Nonlinear response of the polar ionosphere to large values of the interplanetary electric field. Journal of Geophysical Research, 2001, 106, 18495-18504.	3.3	88
14	Electron impact ionization: A new parameterization for 100 eV to 1 MeV electrons. Journal of Geophysical Research, 2008, 113, .	3.3	84
15	Coexistence of ionospheric positive and negative storm phases under northern winter conditions: A case study. Journal of Geophysical Research, 2001, 106, 24493-24504.	3.3	81
16	Thermosphere density variations due to the 15â€“24 April 2002 solar events from CHAMP/STAR accelerometer measurements. Journal of Geophysical Research, 2005, 110, .	3.3	78
17	Wind and temperature effects on thermosphere mass density response to the November 2004 geomagnetic storm. Journal of Geophysical Research, 2010, 115, .	3.3	78
18	Ionospheric and thermospheric variations associated with prompt penetration electric fields. Journal of Geophysical Research, 2012, 117, .	3.3	74

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19	Highâ€latitude energy input and its impact on the thermosphere. Journal of Geophysical Research: Space Physics, 2016, 121, 7108-7124.	2.4	64
20	On the relationship of Joule heating and nitric oxide radiative cooling in the thermosphere. Journal of Geophysical Research, 2010, 115, .	3.3	63
21	A highâ€resolution model of fieldâ€aligned currents through empirical orthogonal functions analysis (MFACE). Geophysical Research Letters, 2012, 39, .	4.0	58
22	Joule heating patterns as a function of polar cap index. Journal of Geophysical Research, 2002, 107, SIA 8-1.	3.3	55
23	High-latitude Joule heating response to IMF inputs. Journal of Geophysical Research, 2005, 110, .	3.3	54
24	Ionospheric data assimilation and forecasting during storms. Journal of Geophysical Research: Space Physics, 2016, 121, 764-778.	2.4	51
25	First Results From the Ionospheric Extension of WACCMâ€X During the Deep Solar Minimum Year of 2008. Journal of Geophysical Research: Space Physics, 2018, 123, 1534-1553.	2.4	50
26	High-latitude ionospheric electrodynamics as determined by the assimilative mapping of ionospheric electrodynamics procedure for the conjunctive SUNDIAL/ATLAS 1/GEM period of March 28-29, 1992. Journal of Geophysical Research, 1996, 101, 26697-26718.	3.3	48
27	Joule heating and nitric oxide in the thermosphere. Journal of Geophysical Research, 2009, 114, .	3.3	48
28	Rapid recovery of thermosphere density during the October 2003 geomagnetic storms. Journal of Geophysical Research, 2011, 116, .	3.3	48
29	Variations of total electron content during geomagnetic disturbances: A model/observation comparison. Geophysical Research Letters, 1998, 25, 253-256.	4.0	47
30	Global ionospheric and thermospheric response to the 5 April 2010 geomagnetic storm: An integrated dataâ€model investigation. Journal of Geophysical Research: Space Physics, 2014, 119, 10,358.	2.4	46
31	Optimal interpolation analysis of high-latitude ionospheric electrodynamics using empirical orthogonal functions: Estimation of dominant modes of variability and temporal scales of large-scale electric fields. Journal of Geophysical Research, 2005, 110, .	3.3	45
32	An investigation of the influence of data and model inputs on assimilative mapping of ionospheric electrodynamics. Journal of Geophysical Research, 2001, 106, 417-433.	3.3	35
33	Assimilative mapping of ionospheric electrodynamics in the thermosphere-ionosphere general circulation model comparisons with global ionospheric and thermospheric observations during the GEM/SUNDIAL period of March 28-29, 1992. Journal of Geophysical Research, 1996, 101, 26681-26696.	3.3	32
34	Modeling ionospheric superâ€fountain effect based on the coupled TIMEGCMâ€SAMI3. Journal of Geophysical Research: Space Physics, 2013, 118, 2527-2535.	2.4	32
35	Neutral wind effect in producing a storm time ionospheric additional layer in the equatorial ionization anomaly region. Journal of Geophysical Research, 2009, 114, .	3.3	28
36	Intraannual variability of tides in the thermosphere from model simulations and in situ satellite observations. Journal of Geophysical Research: Space Physics, 2015, 120, 751-765.	2.4	25

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37	Largeâ€Scale Ionospheric Disturbances During the 17 March 2015 Storm: A Modelâ€Data Comparative Study. Journal of Geophysical Research: Space Physics, 2020, 125, e2019JA027726.	2.4	25
38	The AMIE procedure: Prospects for space weather specification and prediction. Advances in Space Research, 1998, 22, 103-112.	2.6	23
39	Large Scale High-Latitude Ionospheric Electrodynamic Fields and Currents. Space Science Reviews, 2017, 206, 431-450.	8.1	23
40	Upper thermospheric responses to forcing from above and below during 1-10 April 2010: Results from an ensemble of numerical simulations. Journal of Geophysical Research: Space Physics, 2015, 120, 3160-3174.	2.4	21
41	Thermospheric recovery during the 5 April 2010 geomagnetic storm. Journal of Geophysical Research: Space Physics, 2017, 122, 4588-4599.	2.4	21
42	Solar filament impact on 21 January 2005: Geospace consequences. Journal of Geophysical Research: Space Physics, 2014, 119, 5401-5448.	2.4	20
43	Reversed ionospheric convections during the November 2004 storm: Impact on the upper atmosphere. Journal of Geophysical Research, 2009, 114, .	3.3	18
44	Reversed two-cell convection in the Northern and Southern hemispheres during northward interplanetary magnetic field. Journal of Geophysical Research, 2011, 116, n/a-n/a.	3.3	18
45	Ionosphereâ€thermosphere energy budgets for the ICME storms of March 2013 and 2015 estimated with GITM and observational proxies. Space Weather, 2017, 15, 1102-1124.	3.7	18
46	Comparison of AMIEâ€modeled and Sondrestromâ€measured Joule heating: A study in model resolution and electric fieldâ€“conductivity correlation. Journal of Geophysical Research, 2009, 114, .	3.3	15
47	Effects of Highâ€Latitude Forcing Uncertainty on the Lowâ€Latitude and Midlatitude Ionosphere. Journal of Geophysical Research: Space Physics, 2018, 123, 862-882.	2.4	14
48	Impact of nitric oxide, solar EUV and particle precipitation on thermospheric density decrease. Journal of Atmospheric and Solar-Terrestrial Physics, 2019, 182, 147-154.	1.6	14
49	3â€D Tomographic Reconstruction of SED Plume During 17 March 2013 Storm. Journal of Geophysical Research: Space Physics, 2020, 125, e2020JA028257.	2.4	13
50	Low- and Mid-Latitude Ionospheric Response to the 2013 St. Patrickâ€™s Day Geomagnetic Storm in the American Sector: Global Ionosphere Thermosphere Model Simulation. Frontiers in Astronomy and Space Sciences, 2022, 9, .	2.8	11
51	RCMâ€E and AMIE studies of the Harang reversal formation during a steady magnetospheric convection event. Journal of Geophysical Research: Space Physics, 2014, 119, 7228-7242.	2.4	9
52	Importance of Regionalâ€Scale Auroral Precipitation and Electrical Field Variability to the Stormâ€Time Thermospheric Temperature Enhancement and Inversion Layer (TTEIL) in the Antarctic E Region. Journal of Geophysical Research: Space Physics, 2020, 125, e2020JA028224.	2.4	9
53	Magnetosphereâ€Ionosphere Coupling via Prescribed Fieldâ€Aligned Current Simulated by the TIEGCM. Journal of Geophysical Research: Space Physics, 2021, 126, .	2.4	8
54	A Data-model Comparative Study of Ionospheric Positive Storm Phase in the Midlatitude F Region. Geophysical Monograph Series, 0, , 63-75.	0.1	3

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55	Appreciation of 2017 GRL Peer Reviewers. Geophysical Research Letters, 2018, 45, 4494-4528.	4.0	0
56	Thank You to Our 2018 Peer Reviewers. Geophysical Research Letters, 2019, 46, 12608-12636.	4.0	0
57	Thank You to Our 2019 Peer Reviewers. Geophysical Research Letters, 2020, 47, e2020GL088048.	4.0	0
58	Thank You to Our 2020 Peer Reviewers. Geophysical Research Letters, 2021, 48, e2021GL093126.	4.0	0
59	Large Scale High-Latitude Ionospheric Electrodynamic Fields and Currents. Space Sciences Series of ISSI, 2018, , 439-458.	0.0	0
60	Thank You to Our 2021 Peer Reviewers. Geophysical Research Letters, 2022, 49, .	4.0	0