Xian Lu

List of Publications by Year
in descending order

41 papers	815 citations	430754 18 h-index	501076 28 g-index
41 all docs	41 docs citations	41 times ranked	701 citing authors

#	Article	IF	Citations
1	Data Assimilation of Highâ€Latitude Electric Fields: Extension of a Multiâ€Resolution Gaussian Process Model (Lattice Kriging) to Vector Fields. Space Weather, 2022, 20, .	1.3	3
2	Using Temporal Relationship of Thermospheric Density With Geomagnetic Activity Indices and Joule Heating as Calibration for NRLMSISEâ€00 During Geomagnetic Storms. Space Weather, 2022, 20, .	1.3	2
3	Lidar Observations of Instability and Estimates of Vertical Eddy Diffusivity Induced by Gravity Wave Breaking in the Arctic Mesosphere. Journal of Geophysical Research D: Atmospheres, 2021, 126, e2020JD033450.	1.2	4
4	A Comparative Study of Ionospheric Dayâ€Toâ€Day Variability Over Wuhan Based on Ionosonde Measurements and Model Simulations. Journal of Geophysical Research: Space Physics, 2021, 126, e2020JA028589.	0.8	7
5	Mechanism Studies of Maddenâ€Julian Oscillation Coupling Into the Mesosphere/Lower Thermosphere Tides Using SABER, MERRAâ€2, and SDâ€WACCMX. Journal of Geophysical Research D: Atmospheres, 2021, 126, e2021JD034595.	1.2	4
6	Latitudinal Impacts of Joule Heating on the Highâ€Latitude Thermospheric Density Enhancement During Geomagnetic Storms. Journal of Geophysical Research: Space Physics, 2021, 126, e2020JA028747.	0.8	5
7	Global Responses of Gravity Waves and Zonal Mean Winds to the Maddenâ€Julian Oscillation and the Latitudinal Dependence of Their Relations Using MERRAâ€2. Geophysical Research Letters, 2021, 48, e2021GL094717.	1.5	1
8	SABER Observations of Gravity Wave Responses to the Maddenâ€Julian Oscillation From the Stratosphere to the Lower Thermosphere in Tropics and Extratropics. Geophysical Research Letters, 2020, 47, e2020GL091014.	1.5	5
9	The Tidal Response in the Mesosphere/Lower Thermosphere to the Maddenâ€Julian Oscillation Observed by SABER. Geophysical Research Letters, 2020, 47, e2020GL089172.	1.5	9
10	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.	0.8	9
11	First Lidar Observations of Quasiâ€Biennial Oscillationâ€Induced Interannual Variations of Gravity Wave Potential Energy Density at McMurdo via a Modulation of the Antarctic Polar Vortex. Journal of Geophysical Research D: Atmospheres, 2020, 125, e2020JD032866.	1.2	6
12	Quietâ€Time Dayâ€toâ€Day Variability of Equatorial Vertical EÃ—B Drift From Atmosphere Perturbations at Dawn. Journal of Geophysical Research: Space Physics, 2020, 125, e2020JA027824.	0.8	19
13	Quasiâ€Biennial Oscillation of Shortâ€Period Planetary Waves and Polar Night Jet in Winter Antarctica Observed in SABER and MERRAâ€2 and Mechanism Study With a Quasiâ€Geostrophic Model. Geophysical Research Letters, 2019, 46, 13526-13534.	1.5	7
14	Significant Electric Field Perturbations in Low Latitude Ionosphere due to the Passage of Two Consecutive ICMEs During 6â€“8 September 2017. Journal of Geophysical Research: Space Physics, 2019, 124, 9494-9510.	0.8	16
15	Transition of Interhemispheric Asymmetry of Equatorial Ionization Anomaly During Solstices. Journal of Geophysical Research: Space Physics, 2018, 123, 10,283.	0.8	15
16	Latitudinal Doubleâ€Peak Structure of Stationary Planetary Wave 1 in the Austral Winter Middle Atmosphere and Its Possible Generation Mechanism. Journal of Geophysical Research D: Atmospheres, 2018, 123, 11,551.	1.2	7
17	Lidar Observations of Stratospheric Gravity Waves From 2011 to 2015 at McMurdo (77.84Â°S, 166.69Â°E), Antarctica: 2. Potential Energy Densities, Lognormal Distributions, and Seasonal Variations. Journal of Geophysical Research D: Atmospheres, 2018, 123, 7910-7934.	1.2	33
18	Validation of SABER v2.0 Operational Temperature Data With Groundâ€Based Lidars in the Mesosphereâ€Lower Thermosphere Region (75â€“105Â km). Journal of Geophysical Research D: Atmospheres, 2018, 123, 9916-9934.	1.2	39

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19	Lidar observations of stratospheric gravity waves from 2011 to 2015 at McMurdo (77.84Â°S, 166.69Â°E), Antarctica: 1. Vertical wavelengths, periods, and frequency and vertical wave number spectra. Journal of Geophysical Research D: Atmospheres, 2017, 122, 5041-5062.	1.2	48
20	First Observations of Shortâ€Period Eastward Propagating Planetary Waves From the Stratosphere to the Lower Thermosphere (110Âkm) in Winter Antarctica. Geophysical Research Letters, 2017, 44, 10,744.	1.5	14
21	Statistical characterization of high-to-medium frequency mesoscale gravity waves by lidar-measured vertical winds and temperatures in the MLT. Journal of Atmospheric and Solar-Terrestrial Physics, 2017, 162, 3-15.	0.6	18
22	From Antarctica Lidar Discoveries to Oasis Exploration. EPJ Web of Conferences, 2016, 119, 12001.	0.1	9
23	Antarctic Wave Dynamics Mystery Discovered by Lidar, Radar and Imager. EPJ Web of Conferences, 2016, 119, 13004.	0.1	1
24	Simultaneous Observations of Mesoscale Gravity Waves Over the Central US with CRRL Na Doppler Lidars and USU Temperature Mapper. EPJ Web of Conferences, 2016, 119, 13003.	0.1	0
25	Winter Temperature and Tidal Structures from 2011 to 2014 at McMurdo Station: Observations from Fe Boltzmann Temperature and Rayleigh Lidar. EPJ Web of Conferences, 2016, 119, 12003.	0.1	1
26	Lidar observations of persistent gravity waves with periods of 3â€"10â€‰h in the Antarctic middle and upper atmosphere at McMurdo (77.83Â°S, 166.67Â°E). Journal of Geophysical Research: Space Physics, 2016, 121, 1483-1502.	0.8	57
27	A coordinated study of 1â€‰h mesoscale gravity waves propagating from Logan to Boulder with CRRL Na Doppler lidars and temperature mapper. Journal of Geophysical Research D: Atmospheres, 2015, 120, 10,006.	1.2	28
28	Lidar and CTIPe model studies of the fast amplitude growth with altitude of the diurnal temperature â€œtidesâ€• in the Antarctic winter lower thermosphere and dependence on geomagnetic activity. Geophysical Research Letters, 2015, 42, 697-704.	1.5	8
29	Vertical evolution of potential energy density and vertical wave number spectrum of Antarctic gravity waves from 35 to 105â€‰km at McMurdo (77.8Â°S, 166.7Â°E). Journal of Geophysical Research D: Atmospheres, 2015, 120, 2719-2737.	1.2	41
30	Winter temperature tides from 30 to 110â€‰km at McMurdo (77.8Â°S, 166.7Â°E), Antarctica: Lidar observations and comparisons with WAM. Journal of Geophysical Research D: Atmospheres, 2014, 119, 2846-2863.	1.2	21
31	Global structure and seasonal variability of the migrating terdiurnal tide in the mesosphere and lower thermosphere. Journal of Atmospheric and Solar-Terrestrial Physics, 2013, 105-106, 191-198.	0.6	27
32	Observation of a thermospheric descending layer of neutral K over Arecibo. Journal of Atmospheric and Solar-Terrestrial Physics, 2013, 104, 253-259.	0.6	39
33	Eastward propagating planetary waves with periods of 1â€"5â€‰days in the winter Antarctic stratosphere as revealed by MERRA and lidar. Journal of Geophysical Research D: Atmospheres, 2013, 118, 9565-9578.	1.2	26
34	Nonlinear coupling between quasi 2â€‰day wave and tides based on meteor radar observations at Maui. Journal of Geophysical Research D: Atmospheres, 2013, 118, 10,936.	1.2	36
35	Diurnal variation of gravity wave momentum flux and its forcing on the diurnal tide. Journal of Geophysical Research D: Atmospheres, 2013, 118, 1668-1678.	1.2	31
36	Inertiaâ€gravity waves in Antarctica: A case study using simultaneous lidar and radar measurements at McMurdo/Scott Base (77.8Â°S, 166.7Â°E). Journal of Geophysical Research D: Atmospheres, 2013, 118, 2794-2808.	1.2	58

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37	Momentum budget of the migrating diurnal tide in the Whole Atmosphere Community Climate Model at vernal equinox. Journal of Geophysical Research, 2012, 117, .	3.3	19
38	Meteorâ€radar observed mesospheric semiâ€annual oscillation (SAO) and quasiâ€biennial oscillation (QBO) over Maui, Hawaii. Journal of Geophysical Research, 2012, 117, .	3.3	11
39	Seasonal variability of the diurnal tide in the mesosphere and lower thermosphere over Maui, Hawaii (20.7Â°N, 156.3Â°W). Journal of Geophysical Research, 2011, 116, .	3.3	38
40	Gravity wave characteristics from OH airglow imager over Maui. Journal of Geophysical Research, 2011, 116, n/a-n/a.	3.3	30
41	Gravity wave propagation and dissipation from the stratosphere to the lower thermosphere. Journal of Geophysical Research, 2009, 114, .	3.3	63