

Chuntao Liu

List of Publications by Year in descending order

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80
papers

4,154
citations

159358

30
h-index

118652

62
g-index

82
all docs

82
docs citations

82
times ranked

3115
citing authors

#	ARTICLE	IF	CITATIONS
1	Using TRMM Latent Heat as a Source to Estimate Convection Induced Gravity Wave Momentum Flux in the Lower Stratosphere. <i>Journal of Geophysical Research D: Atmospheres</i> , 2022, 127, e2021JD035785.	1.2	3
2	Relationships between Extratropical Precipitation Systems and UTLS Temperatures and Tropopause Height from GPM and GPS-RO. <i>Atmosphere</i> , 2022, 13, 196.	1.0	0
3	Validity of Global Fogâ€”Day Trends Indicated by the Global Surface Summary of the Day (GSOD) Data Set. <i>Journal of Geophysical Research D: Atmospheres</i> , 2022, 127, .	1.2	5
4	Relationship Between Lightning, Precipitation, and Environmental Characteristics at Midâ€”High Latitudes From a GLM and GPM Perspective. <i>Journal of Geophysical Research D: Atmospheres</i> , 2022, 127, .	1.2	5
5	Observations from the one year electric field Study-North Slope of Alaska (OYES-NSA) field campaign, and their implications for observing the distribution of global electrified cloud activity. <i>Journal of Atmospheric and Solar-Terrestrial Physics</i> , 2021, 214, 105528.	0.6	3
6	A 4-Year Climatological Analysis Based on GPM Observations of Deep Convective Events in the Mediterranean Region. <i>Remote Sensing</i> , 2021, 13, 1685.	1.8	7
7	Observational Validation of Parameterized Gravity Waves From Tropical Convection in the Whole Atmosphere Community Climate Model. <i>Journal of Geophysical Research D: Atmospheres</i> , 2021, 126, e2020JD033954.	1.2	7
8	Differences in the Diurnal Variation of Precipitation Estimated by Spaceborne Radar, Passive Microwave Radiometer, and IMERG. <i>Journal of Geophysical Research D: Atmospheres</i> , 2021, 126, e2020JD033020.	1.2	9
9	Comparison of Lightning Detection Between the FYâ€”A Lightning Mapping Imager and the ISS Lightning Imaging Sensor. <i>Earth and Space Science</i> , 2021, 8, e2020EA001099.	1.1	5
10	Properties of Mesoscale Convective Systems Throughout Their Lifetimes Using IMERG, GPM, WWLLN, and a Simplified Tracking Algorithm. <i>Journal of Geophysical Research D: Atmospheres</i> , 2021, 126, e2021JD035264.	1.2	7
11	Extreme Convection vs. Extreme Rainfall: a Global View. <i>Current Climate Change Reports</i> , 2021, 7, 121-130.	2.8	9
12	Using Deep Learning and Machine Learning Methods to Diagnose Hailstorms in Large-Scale Thermodynamic Environments. <i>Sustainability</i> , 2020, 12, 10499.	1.6	4
13	What Are the Favorable Large-Scale Environments for the Highest-Flash-Rate Thunderstorms on Earth?. <i>Journals of the Atmospheric Sciences</i> , 2020, 77, 1583-1612.	0.6	20
14	Climatology and Detection of Overshooting Convection From 4Â”Years of GPM Precipitation Radar and Passive Microwave Observations. <i>Journal of Geophysical Research D: Atmospheres</i> , 2020, 125, e2019JD032003.	1.2	17
15	Contributions of the Liquid and Ice Phases to Global Surface Precipitation: Observations and Global Climate Modeling. <i>Journals of the Atmospheric Sciences</i> , 2020, 77, 2629-2648.	0.6	34
16	Ice Microphysical Properties near the Tops of Deep Convective Cores Implied by the GPM Dual-Frequency Radar Observations. <i>Journals of the Atmospheric Sciences</i> , 2019, 76, 2899-2917.	0.6	15
17	Uncertainties of GPM Microwave Imager Precipitation Estimates Related to Precipitation System Size and Intensity. <i>Journal of Hydrometeorology</i> , 2019, 20, 1907-1923.	0.7	13
18	Remote Sensing Properties of Freezing Rain Events From Space. <i>Journal of Geophysical Research D: Atmospheres</i> , 2019, 124, 10385-10400.	1.2	9

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19	The Relationship between the ITCZ and MJO Initiation over the Indian Ocean. <i>Journals of the Atmospheric Sciences</i> , 2019, 76, 2275-2294.	0.6	10
20	The Variation of the Intensity, Height, and Size of Precipitation Systems with El Niño Southern Oscillation in the Tropics and Subtropics. <i>Journal of Climate</i> , 2019, 32, 4281-4297.	1.2	6
21	How Does the Trend in Thunder Days Relate to the Variation of Lightning Flash Density?. <i>Journal of Geophysical Research D: Atmospheres</i> , 2019, 124, 4955-4974.	1.2	19
22	Geographical Distribution of Thundersnow Events and Their Properties From GPM Ku-Band Radar. <i>Journal of Geophysical Research D: Atmospheres</i> , 2019, 124, 2031-2048.	1.2	15
23	A Bayesian-Like Approach to Describe the Regional Variation of High-Frequency Flash Rate Thunderstorms From Thermodynamic and Kinematic Environment Variables. <i>Journal of Geophysical Research D: Atmospheres</i> , 2019, 124, 12507-12522.	1.2	4
24	Intra-seasonal and seasonal variability of convective properties of monsoon precipitation systems over West and Central Africa. <i>Theoretical and Applied Climatology</i> , 2019, 137, 1715-1728.	1.3	7
25	Global Distribution of Snow Precipitation Features and Their Properties from 3 Years of GPM Observations. <i>Journal of Climate</i> , 2018, 31, 3731-3754.	1.2	39
26	The Effects of Deep Convection on Regional Temperature Structure in the Tropical Upper Troposphere and Lower Stratosphere. <i>Journal of Geophysical Research D: Atmospheres</i> , 2018, 123, 1585-1603.	1.2	22
27	Evolution of Precipitation Structure During the November DYNAMO MJO Event: Cloud-Resolving Model Intercomparison and Cross Validation Using Radar Observations. <i>Journal of Geophysical Research D: Atmospheres</i> , 2018, 123, 3530-3555.	1.2	9
28	A Multiyear Analysis of Global Precipitation Combining CloudSat and GPM Precipitation Retrievals. <i>Journal of Hydrometeorology</i> , 2018, 19, 1935-1952.	0.7	14
29	Retrieving Global Wilson Currents from Electrified Clouds Using Satellite Passive Microwave Observations. <i>Journal of Atmospheric and Oceanic Technology</i> , 2018, 35, 1487-1503.	0.5	4
30	A TRMM Assessment of the Composition of the Generator Current That Supplies the Global Electric Circuit. <i>Journal of Geophysical Research D: Atmospheres</i> , 2018, 123, 8208-8220.	1.2	7
31	Synoptic Environments and Characteristics of Convection Reaching the Tropopause over Northeast China. <i>Monthly Weather Review</i> , 2018, 146, 745-759.	0.5	16
32	The properties of optical lightning flashes and the clouds they illuminate. <i>Journal of Geophysical Research D: Atmospheres</i> , 2017, 122, 423-442.	1.2	50
33	Severe weather in a warming climate. <i>Nature</i> , 2017, 544, 422-423.	13.7	4
34	Relationship between the global electric circuit and electrified cloud parameters at diurnal, seasonal, and interannual timescales. <i>Journal of Geophysical Research D: Atmospheres</i> , 2017, 122, 8525-8542.	1.2	9
35	Decreased hail size in China since 1980. <i>Scientific Reports</i> , 2017, 7, 10913.	1.6	17
36	A TRMM/GPM retrieval of the total mean generator current for the global electric circuit. <i>Journal of Geophysical Research D: Atmospheres</i> , 2017, 122, 10,025.	1.2	15

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37	The El Niño Southern Oscillation effect on tropical outgoing longwave radiation: A daytime versus nighttime perspective. <i>Journal of Geophysical Research D: Atmospheres</i> , 2017, 122, 7820-7833.	1.2	6
38	Relationships between Large Precipitating Systems and Atmospheric Factors at a Grid Scale. <i>Journals of the Atmospheric Sciences</i> , 2017, 74, 531-552.	0.6	14
39	On the Detection of Hail Using Satellite Passive Microwave Radiometers and Precipitation Radar. <i>Journal of Applied Meteorology and Climatology</i> , 2017, 56, 2693-2709.	0.6	40
40	Warm Organized Rain Systems over the Tropical Eastern Pacific. <i>Journal of Climate</i> , 2016, 29, 3403-3422.	1.2	12
41	Global distribution of deep convection reaching tropopause in 1-year GPM observations. <i>Journal of Geophysical Research D: Atmospheres</i> , 2016, 121, 3824-3842.	1.2	75
42	Properties of hail storms over China and the United States from the Tropical Rainfall Measuring Mission. <i>Journal of Geophysical Research D: Atmospheres</i> , 2016, 121, 12031-12044.	1.2	9
43	Parameterizing total storm conduction currents in the Community Earth System Model. <i>Journal of Geophysical Research D: Atmospheres</i> , 2016, 121, 13,715.	1.2	9
44	Weak linkage between the heaviest rainfall and tallest storms. <i>Nature Communications</i> , 2015, 6, 6213.	5.8	143
45	The global distribution of largest, deepest, and most intense precipitation systems. <i>Geophysical Research Letters</i> , 2015, 42, 3591-3595.	1.5	136
46	Latent Heating Contribution from Precipitation Systems with Different Sizes, Depths, and Intensities in the Tropics. <i>Journal of Climate</i> , 2015, 28, 186-203.	1.2	39
47	A Method of Estimating Electric Fields above Electrified Clouds from Passive Microwave Observations. <i>Journal of Atmospheric and Oceanic Technology</i> , 2015, 32, 1429-1446.	0.5	11
48	Differences between the Surface Precipitation Estimates from the TRMM Precipitation Radar and Passive Microwave Radiometer Version 7 Products. <i>Journal of Hydrometeorology</i> , 2014, 15, 2157-2175.	0.7	27
49	TRMM-Observed Shallow versus Deep Convection in the Eastern Pacific Related to Large-Scale Circulations in Reanalysis Datasets. <i>Journal of Climate</i> , 2014, 27, 5575-5592.	1.2	15
50	An Investigation of the Aerosol Indirect Effect on Convective Intensity Using Satellite Observations. <i>Journals of the Atmospheric Sciences</i> , 2014, 71, 430-447.	0.6	44
51	Rain characteristics and large-scale environments of precipitation objects with extreme rain volumes from TRMM observations. <i>Journal of Geophysical Research D: Atmospheres</i> , 2013, 118, 9673-9689.	1.2	14
52	An Evaluation of Microwave Land Surface Emissivities Over the Continental United States to Benefit GPM-Era Precipitation Algorithms. <i>IEEE Transactions on Geoscience and Remote Sensing</i> , 2013, 51, 378-398.	2.7	95
53	Why does radar reflectivity tend to increase downward toward the ocean surface, but decrease downward toward the land surface?. <i>Journal of Geophysical Research D: Atmospheres</i> , 2013, 118, 135-148.	1.2	52
54	A climatology of tropical congestus using CloudSat. <i>Journal of Geophysical Research D: Atmospheres</i> , 2013, 118, 6478-6492.	1.2	24

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55	Regional variation of morphology of organized convection in the tropics and subtropics. Journal of Geophysical Research D: Atmospheres, 2013, 118, 453-466.	1.2	53
56	Characteristics of lightning flashes with exceptional illuminated areas, durations, and optical powers and surrounding storm properties in the tropics and inner subtropics. Journal of Geophysical Research D: Atmospheres, 2013, 118, 11,727.	1.2	33
57	A Regional Climatology of Monsoonal Precipitation in the Southwestern United States Using TRMM. Journal of Hydrometeorology, 2012, 13, 310-323.	0.7	11
58	An Orography-Associated Extreme Rainfall Event during TIMREX: Initiation, Storm Evolution, and Maintenance. Monthly Weather Review, 2012, 140, 2555-2574.	0.5	100
59	Relationships between lightning flash rates and radar reflectivity vertical structures in thunderstorms over the tropics and subtropics. Journal of Geophysical Research, 2012, 117, .	3.3	83
60	Global statistics of lightning in anvil and stratiform regions over the tropics and subtropics observed by the Tropical Rainfall Measuring Mission. Journal of Geophysical Research, 2011, 116, n/a-n/a.	3.3	26
61	A TRMM-Based Tropical Cyclone Cloud and Precipitation Feature Database. Journal of Applied Meteorology and Climatology, 2011, 50, 1255-1274.	0.6	98
62	Relationships between lightning flash rates and passive microwave brightness temperatures at 85 and 37 GHz over the tropics and subtropics. Journal of Geophysical Research, 2011, 116, n/a-n/a.	3.3	27
63	Rainfall Contributions from Precipitation Systems with Different Sizes, Convective Intensities, and Durations over the Tropics and Subtropics. Journal of Hydrometeorology, 2011, 12, 394-412.	0.7	65
64	Improving a spectral bin microphysical scheme using TRMM satellite observations. Quarterly Journal of the Royal Meteorological Society, 2010, 136, 382-399.	1.0	40
65	Diurnal Variations of Global Thunderstorms and Electrified Shower Clouds and Their Contribution to the Global Electrical Circuit. Journals of the Atmospheric Sciences, 2010, 67, 309-323.	0.6	92
66	Status of the TRMM 2A12 Land Precipitation Algorithm. Journal of Atmospheric and Oceanic Technology, 2010, 27, 1343-1354.	0.5	98
67	On the relationships between lightning frequency and thundercloud parameters of regional precipitation systems. Journal of Geophysical Research, 2010, 115, .	3.3	34
68	“Warm Rain” in the Tropics: Seasonal and Regional Distributions Based on 9 yr of TRMM Data. Journal of Climate, 2009, 22, 767-779.	1.2	122
69	TRMM 2A12 Land Precipitation Product - Status and Future Plans. Journal of the Meteorological Society of Japan, 2009, 87A, 237-253.	0.7	79
70	Rainfall Characteristics and Convective Properties of Mei-Yu Precipitation Systems over South China, Taiwan, and the South China Sea. Part I: TRMM Observations. Monthly Weather Review, 2009, 137, 4261-4275.	0.5	105
71	Implications of the day versus night differences of water vapor, carbon monoxide, and thin cloud observations near the tropical tropopause. Journal of Geophysical Research, 2009, 114, .	3.3	20
72	Diurnal cycles of precipitation, clouds, and lightning in the tropics from 9 years of TRMM observations. Geophysical Research Letters, 2008, 35, .	1.5	129

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73	Implications of the differences between daytime and nighttime CloudSat observations over the tropics. <i>Journal of Geophysical Research</i> , 2008, 113, .	3.3	31
74	On the diurnal cycle of deep convection, high-level cloud, and upper troposphere water vapor in the Multiscale Modeling Framework. <i>Journal of Geophysical Research</i> , 2008, 113, .	3.3	50
75	A Cloud and Precipitation Feature Database from Nine Years of TRMM Observations. <i>Journal of Applied Meteorology and Climatology</i> , 2008, 47, 2712-2728.	0.6	317
76	Global Distribution of Tropical Deep Convection: Different Perspectives from TRMM Infrared and Radar Data. <i>Journal of Climate</i> , 2007, 20, 489-503.	1.2	206
77	How do the water vapor and carbon monoxide recorders start near the tropical tropopause?. <i>Geophysical Research Letters</i> , 2007, 34, .	1.5	40
78	Geographical and seasonal distribution of tropical tropopause thin clouds and their relation to deep convection and water vapor viewed from satellite measurements. <i>Journal of Geophysical Research</i> , 2007, 112, .	3.3	22
79	WHERE ARE THE MOST INTENSE THUNDERSTORMS ON EARTH?. <i>Bulletin of the American Meteorological Society</i> , 2006, 87, 1057-1072.	1.7	764
80	Global distribution of convection penetrating the tropical tropopause. <i>Journal of Geophysical Research</i> , 2005, 110, .	3.3	305