Panmao Zhai

List of Publications by Year
in descending order

124 papers	11,571 citations	50170 46 h-index	29081 104 g-index
124 all docs	124 docs citations	124 times ranked	9414 citing authors

#	Article	IF	Citations
1	Global observed changes in daily climate extremes of temperature and precipitation. Journal of Geophysical Research, 2006, 111, .	3.3	2,884
2	Trends in Total Precipitation and Frequency of Daily Precipitation Extremes over China. Journal of Climate, 2005, 18, 1096-1108.	1.2	1,195
3	Updated analyses of temperature and precipitation extreme indices since the beginning of the twentieth century: The HadEX2 dataset. Journal of Geophysical Research D: Atmospheres, 2013, 118, 2098-2118.	1.2	1,029
4	The climatology of planetary boundary layer height in China derived from radiosonde and reanalysis data. Atmospheric Chemistry and Physics, 2016, 16, 13309-13319.	1.9	384
5	Changes of Climate Extremes in China. Climatic Change, 1999, 42, 203-218.	1.7	356
6	Trends in temperature extremes during 1951-1999 in China. Geophysical Research Letters, 2003, 30, n/a-n/a.	1.5	322
7	Variations in droughts over China: 1951-2003. Geophysical Research Letters, 2005, 32, n/a-n/a.	1.5	270
8	Delaying precipitation and lightning by air pollution over the Pearl River Delta. Part I: Observational analyses. Journal of Geophysical Research D: Atmospheres, 2016, 121, 6472-6488.	1.2	212
9	Classification of summertime synoptic patterns in Beijing and their associations with boundary layer structure affecting aerosol pollution. Atmospheric Chemistry and Physics, 2017, 17, 3097-3110.	1.9	210
10	Change in mean temperature as a predictor of extreme temperature change in the Asia-Pacific region. International Journal of Climatology, 2005, 25, 1301-1330.	1.5	203
11	Impact of diurnal variability and meteorological factors on the PM2.5 - AOD relationship: Implications for PM2.5 remote sensing. Environmental Pollution, 2017, 221, 94-104.	3.7	178
12	Atmospheric Water Vapor over China. Journal of Climate, 1997, 10, 2643-2652.	1.2	175
13	Warming amplification over the Arctic Pole and Third Pole: Trends, mechanisms and consequences. Earth-Science Reviews, 2021, 217, 103625.	4.0	157
14	Anthropogenically-driven increases in the risks of summertime compound hot extremes. Nature Communications, 2020, 11, 528.	5.8	146
15	Shift in the Temporal Trend of Boundary Layer Height in China Using Longâ€Term (1979â€“2016) Radiosonde Data. Geophysical Research Letters, 2019, 46, 6080-6089.	1.5	130
16	Persistent extreme precipitation events in China during 1951-2010. Climate Research, 2013, 57, 143-155.	0.4	129
17	Anthropogenic emissions and urbanization increase risk of compound hot extremes in cities. Nature Climate Change, 2021, 11, 1084-1089.	8.1	117
18	The strong El NiÃ±o of 2015/16 and its dominant impacts on global and China's climate. Journal of Meteorological Research, 2016, 30, 283-297.	0.9	115

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19	Revisiting summertime hot extremes in China during 1961â€“2015: Overlooked compound extremes and significant changes. Geophysical Research Letters, 2017, 44, 5096-5103.	1.5	114
20	Declining frequency of summertime localâ€scale precipitation over eastern China from 1970 to 2010 and its potential link to aerosols. Geophysical Research Letters, 2017, 44, 5700-5708.	1.5	113
21	Trans-Pacific transport of dust aerosols from East Asia: Insights gained from multiple observations and modeling. Environmental Pollution, 2017, 230, 1030-1039.	3.7	111
22	Temporal and spatial characteristics of extreme hourly precipitation over eastern China in the warm season. Advances in Atmospheric Sciences, 2011, 28, 1177-1183.	1.9	99
23	Investigation of near-global daytime boundary layer height using high-resolution radiosondes: first results and comparison with ERA5, MERRA-2, JRA-55, and NCEP-2 reanalyses. Atmospheric Chemistry and Physics, 2021, 21, 17079-17097.	1.9	99
24	On the Summertime Planetary Boundary Layer with Different Thermodynamic Stability in China: A Radiosonde Perspective. Journal of Climate, 2018, 31, 1451-1465.	1.2	93
25	Aerosol-induced changes in the vertical structure of precipitation: a perspective of TRMM precipitation radar. Atmospheric Chemistry and Physics, 2018, 18, 13329-13343.	1.9	88
26	Planetary boundary layer height from CALIOP compared to radiosonde over China. Atmospheric Chemistry and Physics, 2016, 16, 9951-9963.	1.9	86
27	Two types of typical circulation pattern for persistent extreme precipitation in Centralâ€“Eastern China. Quarterly Journal of the Royal Meteorological Society, 2014, 140, 1467-1478.	1.0	84
28	Impact of various emission control schemes on air quality using WRF-Chem during APEC China 2014. Atmospheric Environment, 2016, 140, 311-319.	1.9	84
29	Synopticâ€scale precursors of the East Asia/Pacific teleconnection pattern responsible for persistent extreme precipitation in the Yangtze River Valley. Quarterly Journal of the Royal Meteorological Society, 2015, 141, 1389-1403.	1.0	80
30	Precipitation From Persistent Extremes is Increasing in Most Regions and Globally. Geophysical Research Letters, 2019, 46, 6041-6049.	1.5	79
31	Diurnal variation and the influential factors of precipitation from surface and satellite measurements in Tibet. International Journal of Climatology, 2014, 34, 2940-2956.	1.5	71
32	More frequent and widespread persistent compound drought and heat event observed in China. Scientific Reports, 2020, 10, 14576.	1.6	71
33	Understanding human influence on climate change in China. National Science Review, 2022, 9, nwab113.	4.6	70
34	The impact of tropical cyclones on Hainan Island's extreme and total precipitation. International Journal of Climatology, 2007, 27, 1059-1064.	1.5	68
35	Precipitation and air pollution at mountain and plain stations in northern China: Insights gained from observations and modeling. Journal of Geophysical Research D: Atmospheres, 2014, 119, 4793-4807.	1.2	63
36	Mechanisms for concurrent low-latitude circulation anomalies responsible for persistent extreme precipitation in the Yangtze River Valley. Climate Dynamics, 2016, 47, 989-1006.	1.7	61

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37	A Review of Climate Change Attribution Studies. Journal of Meteorological Research, 2018, 32, 671-692.	0.9	59
38	Mesoscale Convective Systems in the Asian Monsoon Region From Advanced Himawari Imager: Algorithms and Preliminary Results. Journal of Geophysical Research D: Atmospheres, 2019, 124, 2210-2234.	1.2	57
39	A new integrated and homogenized global monthly land surface air temperature dataset for the period since 1900. Climate Dynamics, 2018, 50, 2513-2536.	1.7	56
40	Analyses of Inhomogeneities in Radiosonde Temperature and Humidity Time Series. Journal of Climate, 1996, 9, 884-894.	1.2	52
41	Climatology and trends of wet spells in China. Theoretical and Applied Climatology, 2007, 88, 139-148.	1.3	51
42	Detectable Increases in Sequential Floodâ€Heatwave Events Across China During 1961â€“2018. Geophysical Research Letters, 2021, 48, e2021GL092549.	1.5	51
43	Comparisons of Time Series of Annual Mean Surface Air Temperature for China since the 1900s: Observations, Model Simulations, and Extended Reanalysis. Bulletin of the American Meteorological Society, 2017, 98, 699-711.	1.7	50
44	Recent Progress and Emerging Topics on Weather and Climate Extremes Since the Fifth Assessment Report of the Intergovernmental Panel on Climate Change. Annual Review of Environment and Resources, 2018, 43, 35-59.	5.6	50
45	Simultaneous modulations of precipitation and temperature extremes in Southern parts of China by the boreal summer intraseasonal oscillation. Climate Dynamics, 2017, 49, 3363-3381.	1.7	48
46	Declining Summertime Localâ€Scale Precipitation Frequency Over China and the United States, 1981â€“2012: The Disparate Roles of Aerosols. Geophysical Research Letters, 2019, 46, 13281-13289.	1.5	48
47	Variations in extratropical cyclone activity in northern East Asia. Advances in Atmospheric Sciences, 2009, 26, 471-479.	1.9	44
48	Implications of differential effects between 1.5 and 2â€‰Â°C global warming on temperature and precipitation extremes in China's urban agglomerations. International Journal of Climatology, 2018, 38, 2374-2385.	1.5	44
49	The Climatology of Lower Tropospheric Temperature Inversions in China from Radiosonde Measurements: Roles of Black Carbon, Local Meteorology, and Large-Scale Subsidence. Journal of Climate, 2020, 33, 9327-9350.	1.2	42
50	Research on the Relationship of ENSO and the Frequency of Extreme Precipitation Events in China. Advances in Climate Change Research, 2011, 2, 101-107.	2.1	39
51	Future Population Exposure to Daytime and Nighttime Heat Waves in South Asia. Earth's Future, 2022, 10, .	2.4	39
52	Data Rescue in the Southeast Asia and South Pacific Region: Challenges and Opportunities. Bulletin of the American Meteorological Society, 2004, 85, 1483-1490.	1.7	38
53	Precursor Circulation Features for Persistent Extreme Precipitation in Central-Eastern China. Weather and Forecasting, 2014, 29, 226-240.	0.5	36
54	Changes in compound drought and hot extreme events in summer over populated eastern China. Weather and Climate Extremes, 2020, 30, 100295.	1.6	36

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55	Growing Threats From Unprecedented Sequential Floodâ€Hot Extremes Across China. Geophysical Research Letters, 2021, 48, e2021GL094505.	1.5	35
56	The Climatology of Lowâ€Level Jet in Beijing and Guangzhou, China. Journal of Geophysical Research D: Atmospheres, 2018, 123, 2816-2830.	1.2	34
57	Upper-ocean dynamical features and prediction of the super El NiÃ±o in 2015/16: A comparison with the cases in 1982/83 and 1997/98. Journal of Meteorological Research, 2017, 31, 278-294.	0.9	32
58	Climate change and sustainable development for cities. Chinese Science Bulletin, 2019, 64, 1995-2001.	0.4	32
59	Validation of daily precipitation from two high-resolution satellite precipitation datasets over the Tibetan Plateau and the regions to its east. Journal of Meteorological Research, 2012, 26, 735-745.	1.0	31
60	Spatial Distributions and Seasonal Variations of Tropospheric Water Vapor Content over the Tibetan Plateau. Journal of Climate, 2013, 26, 5637-5654.	1.2	29
61	Performance of the CRA-40/Land, CMFD, and ERA-Interim Datasets in Reflecting Changes in Surface Air Temperature over the Tibetan Plateau. Journal of Meteorological Research, 2021, 35, 663-672.	0.9	29
62	Changes of precipitation intensity spectra in different regions of mainland China during 1961â€“2006. Journal of Meteorological Research, 2014, 28, 1085-1098.	0.9	28
63	An updated evaluation of the global mean land surface air temperature and surface temperature trends based on CLSAT and CMST. Climate Dynamics, 2021, 56, 635-650.	1.7	26
64	The Trend Reversal of Dust Aerosol Over East Asia and the North Pacific Ocean Attributed to Largeâ€Scale Meteorology, Deposition, and Soil Moisture. Journal of Geophysical Research D: Atmospheres, 2019, 124, 10450-10466.	1.2	25
65	Contribution of Changes in Synopticâ€Scale Circulation Patterns to the Past Summer Precipitation Regime Shift in Eastern China. Geophysical Research Letters, 2020, 47, e2020GL087728.	1.5	25
66	The response of warm-season precipitation extremes in China to global warming: an observational perspective from radiosonde measurements. Climate Dynamics, 2020, 54, 3977-3989.	1.7	24
67	Hourly extreme precipitation changes under the influences of regional and urbanization effects in Beijing. International Journal of Climatology, 2021, 41, 1179-1189.	1.5	24
68	Warming effect of dust aerosols modulated by overlapping clouds below. Atmospheric Environment, 2017, 166, 393-402.	1.9	23
69	Contrasting Influence of Gobi and Taklimakan Deserts on the Dust Aerosols in Western North America. Geophysical Research Letters, 2019, 46, 9064-9071.	1.5	22
70	The Assessment of Global Surface Temperature Change from 1850s: The C-LSAT2.0 Ensemble and the CMST-Interim Datasets. Advances in Atmospheric Sciences, 2021, 38, 875-888.	1.9	22
71	Changing structure of wet periods across southwest China during 1961-2012. Climate Research, 2014, 61, 123-131.	0.4	21
72	Persistent precipitation extremes in the Yangtze River Valley prolonged by opportune configuration among atmospheric teleconnections. Quarterly Journal of the Royal Meteorological Society, 2019, 145, 2603-2626.	1.0	20

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73	Synoptic patterns and soundingâ€derived parameters associated with summertime heavy rainfall in Beijing. International Journal of Climatology, 2019, 39, 1476-1489.	1.5	20
74	Study on forest fire danger over Northern China during the recent 50Âyears. Climatic Change, 2012, 111, 723-736.	1.7	19
75	Detectable Impacts of the Past Halfâ€Degree Global Warming on Summertime Hot Extremes in China. Geophysical Research Letters, 2018, 45, 7130-7139.	1.5	19
76	Divergent responses of ecosystem water use efficiency to drought timing over Northern Eurasia. Environmental Research Letters, 2021, 16, 045016.	2.2	19
77	Coldâ€“wet spells in mainland China during 1951â€“2011. Natural Hazards, 2014, 74, 931-946.	1.6	18
78	Facing climate change-related extreme events in megacities of China in the context of 1.5 Â°C global warming. Current Opinion in Environmental Sustainability, 2018, 30, 75-81.	3.1	18
79	Halfâ€aâ€Degree Matters for Reducing and Delaying Global Land Exposure to Combined Daytimeâ€Nighttime Hot Extremes. Earth's Future, 2019, 7, 953-966.	2.4	18
80	Teleconnection patterns impacting on the summer consecutive extreme rainfall in Centralâ€Eastern China. International Journal of Climatology, 2017, 37, 3367-3380.	1.5	17
81	Projected changes of thermal growing season over Northern Eurasia in a 1.5â€‰Â°C and 2â€‰Â°C warming world. Environmental Research Letters, 2018, 13, 035004.	2.2	17
82	Detection and Attribution of Changes in Summer Compound Hot and Dry Events over Northeastern China with CMIP6 Models. Journal of Meteorological Research, 2022, 36, 37-48.	0.9	17
83	Low-frequency oscillations of the East Asiaâ€“Pacific teleconnection pattern and their impacts on persistent heavy precipitation in the Yangtzeâ€“Huai River valley. Journal of Meteorological Research, 2016, 30, 459-471.	0.9	16
84	A New Forecast Model Based on the Analog Method for Persistent Extreme Precipitation. Weather and Forecasting, 2016, 31, 1325-1341.	0.5	16
85	Detectable Intensification of Hourly and Daily Scale Precipitation Extremes across Eastern China. Journal of Climate, 2021, 34, 1185-1201.	1.2	15
86	Characteristics of summer extreme precipitation in the Huai River basin and their relationship with East Asia summer monsoon during 1960â€“2014. International Journal of Climatology, 2019, 39, 1555-1570.	1.5	14
87	Changes in temporal concentration property of summer precipitation in China during 1961â€“2010 based on a new index. Journal of Meteorological Research, 2017, 31, 336-349.	0.9	13
88	Persisting and strong warming hiatus over eastern China during the past two decades. Environmental Research Letters, 2017, 12, 104010.	2.2	13
89	Potential Influence of the East Asiaâ€“Pacific Teleconnection Pattern on Persistent Precipitation in South China: Implications of Atypical Yangtze River Valley Cases. Weather and Forecasting, 2018, 33, 267-282.	0.5	12
90	Differing mechanisms for the 2008 and 2016 wintertime cold events in southern China. International Journal of Climatology, 2020, 40, 4944-4955.	1.5	12

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91	Anomalous Features of Extreme Meiyu in 2020 over the Yangtze-Huai River Basin and Attribution to Large-Scale Circulations. Journal of Meteorological Research, 2021, 35, 799-814.	0.9	12
92	CMIP6 Projections of the â€œWarming-Wettingâ€•Trend in Northwest China and Related Extreme Events Based on Observational Constraints. Journal of Meteorological Research, 2022, 36, 239-250.	0.9	12
93	A comprehensive classification of anomalous circulation patterns responsible for persistent precipitation extremes in South China. Journal of Meteorological Research, 2016, 30, 483-495.	0.9	11
94	The influence of soil moisture and solar altitude on surface spectral albedo in arid area. Environmental Research Letters, 2020, 15, 035010.	2.2	11
95	Vegetation Greening Offsets Urbanizationâ€Induced Fast Warming in Guangdong, Hong Kong, and Macao Region (GHMR). Geophysical Research Letters, 2021, 48, e2021GL095217.	1.5	11
96	Low-frequency oscillations of East Asia/Pacific teleconnection and simultaneous weather anomalies/extremes over eastern Asia. International Journal of Climatology, 2017, 37, 276-295.	1.5	10
97	Tropopause trend across China from 1979 to 2016: A revisit with updated radiosonde measurements. International Journal of Climatology, 2019, 39, 1117-1127.	1.5	10
98	Synergistic Effect of the 25â€“60â€day Tropical and Midlatitude Intraseasonal Oscillations on the Persistently Severe Yangtze Floods. Geophysical Research Letters, 2021, 48, e2021GL095129.	1.5	10
99	An Updated Review of Event Attribution Approaches. Journal of Meteorological Research, 2022, 36, 227-238.	0.9	10
100	Changes in climate regionalization indices in China during 1961â€“2010. Advances in Atmospheric Sciences, 2014, 31, 374-384.	1.9	8
101	Changes in classified precipitation in the urban, suburban, and mountain areas of Beijing. Advances in Climate Change Research, 2017, 8, 279-285.	2.1	8
102	Assessing Multidomain Overlaps and Grand Ensemble Generation in CORDEX Regional Projections. Geophysical Research Letters, 2020, 47, e2019GL086799.	1.5	8
103	Synoptic verification of medium-extended-range forecasts of the northwest pacific subtropical high and South Asian high based on multi-center TIGGE data. Journal of Meteorological Research, 2013, 27, 725-741.	1.0	7
104	Dominant Large-Scale Atmospheric Circulation Systems for the Extreme Precipitation over the Western Sichuan Basin in Summer 2013. Advances in Meteorology, 2015, 2015, 1-10.	0.6	7
105	Declining hailstorm frequency in China during 1961â€“2015 and its potential influential factors. International Journal of Climatology, 2018, 38, 4116-4126.	1.5	7
106	Changes in Summer Persistent Precipitation over the Middle-Lower Reaches of the Yangtze River and Associated Atmospheric Circulation Patterns. Journal of Meteorological Research, 2021, 35, 393-401.	0.9	7
107	Impact of urban land-use change in eastern China on the East Asian subtropical monsoon: A numerical study. Journal of Meteorological Research, 2016, 30, 203-216.	0.9	6
108	Atmospheric circulation patterns associated with persistent wetâ€freezing events over southern China. International Journal of Climatology, 2018, 38, 3976-3990.	1.5	6

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109	On the Optimal Design of Field Significance Tests for Changes in Climate Extremes. Geophysical Research Letters, 2021, 48, e2021GL092831.	1.5	6
110	Detectable anthropogenic changes in daily-scale circulations driving summer rainfall shifts over eastern China. Environmental Research Letters, 2021, 16, 074044.	2.2	6
111	Applicability of AIRS Monthly Mean Atmospheric Water Vapor Profiles over the Tibetan Plateau Region. Journal of Atmospheric and Oceanic Technology, 2012, 29, 1617-1628.	0.5	5
112	Comparative Assessment of Two Objective Forecast Models for Cases of Persistent Extreme Precipitation Events in the Yangtzeâ€“Huai River Valley in Summer 2016. Weather and Forecasting, 2018, 33, 221-238.	0.5	5
113	Coincidence of increasingly volatile winters in China with Arctic sea-ice loss during 1980â€“2018. Environmental Research Letters, 2019, 14, 124076.	2.2	5
114	Evaluation of Forecast Performance of Asian Summer Monsoon Low-Level Winds Using the TIGGE Dataset. Weather and Forecasting, 2015, 30, 455-470.	0.5	4
115	Interannual to decadal variability of the winter Aleutian Low intensity during 1900â€“2004. Journal of Meteorological Research, 2011, 25, 710-724.	1.0	3
116	Construction of the OKJ teleconnection index. Theoretical and Applied Climatology, 2013, 114, 303-314.	1.3	3
117	An assessment of the predictability of the East Asian Subtropical Westerly Jet based on TIGGE data. Advances in Atmospheric Sciences, 2015, 32, 401-412.	1.9	3
118	Changes in persistent and non-persistent flood season precipitation over South China during 1961â€“2010. Journal of Meteorological Research, 2013, 27, 788-798.	1.0	2
119	Comparison of the structure and evolution of intraseasonal oscillations before and after onset of the Asian summer monsoon. Journal of Meteorological Research, 2013, 27, 684-700.	1.0	2
120	Pronounced extended duration of tropical cyclone quiescent periods over the western North Pacific in the super El NiÃ±o decaying years. International Journal of Climatology, 2019, 39, 2544-2555.	1.5	2
121	Application of an Improved Analog-Based Heavy Precipitation Forecast Model to the Yangtzeâ€”Huai River Valley and Its Performance in Juneâ€“July 2020. Journal of Meteorological Research, 2021, 35, 987-997.	0.9	1
122	Effects of Dynamic Vegetation on Global Climate Simulation Using the NCEP GFS and SSiB4/TRIFFID. Journal of Meteorological Research, 2021, 35, 1041-1056.	0.9	1
123	An objective approach to predict the spatial property of anomalous rain-belt of Meiyu. Weather and Climate Extremes, 2022, 37, 100466.	1.6	1
124	Toward understanding 1.5Â°C global warming influences on temperature and precipitation extremes at different timings: before and after overshooting. International Journal of Global Warming, 2020, 21, 120.	0.2	0