Xiangdong Zhang

List of Publications by Year
in descending order

78 papers	11,272 citations	109264 35 h-index	76872 74 g-index
83 all docs	83 docs citations	83 times ranked	11436 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	Climate extremes indices in the CMIP5 multimodel ensemble: Part 2. Future climate projections. Journal of Geophysical Research D: Atmospheres, 2013, 118, 2473-2493.	1.2	1,126
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	Changes in temperature and precipitation extremes in the CMIP5 ensemble. Climatic Change, 2013, 119, 345-357.	1.7	887
5	Weakening of the stratospheric polar vortex by Arctic sea-ice loss. Nature Communications, 2014, 5, 4646.	5.8	580
6	Divergent consensuses on Arctic amplification influence on midlatitude severe winter weather. Nature Climate Change, 2020, 10, 20-29.	8.1	424
7	Climatology and Interannual Variability of Arctic Cyclone Activity: 1948â€“2002. Journal of Climate, 2004, 17, 2300-2317.	1.2	371
8	Consistency and discrepancy in the atmospheric response to Arctic sea-ice loss across climate models. Nature Geoscience, 2018, 11, 155-163.	5.4	265
9	Enhanced poleward moisture transport and amplified northern high-latitude wetting trend. Nature Climate Change, 2013, 3, 47-51.	8.1	262
10	Recent radical shifts of atmospheric circulations and rapid changes in Arctic climate system. Geophysical Research Letters, 2008, 35, .	1.5	250
11	Recently amplified arctic warming has contributed to a continual global warming trend. Nature Climate Change, 2017, 7, 875-879.	8.1	218
12	Toward a Seasonally Ice-Covered Arctic Ocean: Scenarios from the IPCC AR4 Model Simulations. Journal of Climate, 2006, 19, 1730-1747.	1.2	205
13	The atmospheric role in the Arctic water cycle: A review on processes, past and future changes, and their impacts. Journal of Geophysical Research G: Biogeosciences, 2016, 121, 586-620.	1.3	197
14	The Polar Amplification Model Intercomparison Project (PAMIP) contribution to CMIP6: investigating the causes and consequences of polar amplification. Geoscientific Model Development, 2019, 12, 1139-1164.	1.3	168
15	A stratospheric pathway linking a colder Siberia to Barents-Kara Sea sea ice loss. Science Advances, 2018, 4, eaat6025.	4.7	165
16	Human-Induced Arctic Moistening. Science, 2008, 320, 518-520.	6.0	159
17	Simulation and Projection of Arctic Freshwater Budget Components by the IPCC AR4 Global Climate Models. Journal of Hydrometeorology, 2007, 8, 571-589.	0.7	128
18	Different ocean states and transient characteristics in Last Glacial Maximum simulations and implications for deglaciation. Climate of the Past, 2013, 9, 2319-2333.	1.3	106

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19	Weakened cyclones, intensified anticyclones and recent extreme cold winter weather events in Eurasia. Environmental Research Letters, 2012, 7, 044044.	2.2	103
20	Observed forcingâ€feedback processes between Northern Hemisphere atmospheric circulation and Arctic sea ice coverage. Journal of Geophysical Research, 2010, 115, .	3.3	101
21	The Sea Ice Extent Anomaly in the North Pacific and Its Impact on the East Asian Summer Monsoon Rainfall. Journal of Climate, 2004, 17, 3434-3447.	1.2	96
22	Major cause of unprecedented Arctic warming in January 2016: Critical role of an Atlantic windstorm. Scientific Reports, 2017, 7, 40051.	1.6	86
23	Projected decline in spring snow depth on Arctic sea ice caused by progressively later autumn open ocean freezeâ€up this century. Geophysical Research Letters, 2012, 39, .	1.5	85
24	North Atlantic warming: patterns of long-term trend and multidecadal variability. Climate Dynamics, 2010, 34, 439-457.	1.7	83
25	Arctic sea-ice change: a grand challenge of climate science. Journal of Glaciology, 2010, 56, 1115-1121.	1.1	76
26	Arctic Sea Ice and Freshwater Changes Driven by the Atmospheric Leading Mode in a Coupled Sea Iceâ€“Ocean Model. Journal of Climate, 2003, 16, 2159-2177.	1.2	75
27	Intrinsic versus Forced Variation in Coupled Climate Model Simulations over the Arctic during the Twentieth Century*. Journal of Climate, 2007, 20, 1093-1107.	1.2	73
28	Remotely modulated tropical-North Pacific oceanâ€“atmosphere interactions by the South Asian high. Atmospheric Research, 2009, 94, 45-60.	1.8	70
29	How do intermittency and simultaneous processes obfuscate the Arctic influence on midlatitude winter extreme weather events?. Environmental Research Letters, 2021, 16, 043002.	2.2	63
30	Multidecadal Variability of North Atlantic Temperature and Salinity during the Twentieth Century. Journal of Climate, 2005, 18, 4562-4581.	1.2	60
31	Large-Scale Climate Controls of Interior Alaska River Ice Breakup. Journal of Climate, 2011, 24, 286-297.	1.2	57
32	Title is missing!. , 2001, 57, 207-234.		49
33	Increasing riverine heat influx triggers Arctic sea ice decline and oceanic and atmospheric warming. Science Advances, 2020, 6, .	4.7	47
34	Extreme Cold Events from East Asia to North America in Winter 2020/21: Comparisons, Causes, and Future Implications. Advances in Atmospheric Sciences, 2022, 39, 553-565.	1.9	44
35	Summer Arctic Atmospheric Circulation Response to Spring Eurasian Snow Cover and Its Possible Linkage to Accelerated Sea Ice Decrease. Journal of Climate, 2014, 27, 6551-6558.	1.2	40
36	An atmospheric origin of the multi-decadal bipolar seesaw. Scientific Reports, 2015, 5, 8909.	1.6	40

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37	Sensitivity of arctic summer sea ice coverage to global warming forcing: towards reducing uncertainty in arctic climate change projections. Tellus, Series A: Dynamic Meteorology and Oceanography, 2010, 62, 220-227.	0.8	36
38	Continuously amplified warming in the Alaskan Arctic: Implications for estimating global warming hiatus. Geophysical Research Letters, 2017, 44, 9029-9038.	1.5	36
39	Diagnosis of the record discharge of Arctic-draining Eurasian rivers in 2007. Environmental Research Letters, 2009, 4, 045011.	2.2	35
40	Role of extratropical cyclones in the recently observed increase in poleward moisture transport into the Arctic Ocean. Advances in Atmospheric Sciences, 2018, 35, 85-94.	1.9	33
41	Higher Laurentide and Greenland ice sheets strengthen the North Atlantic ocean circulation. Climate Dynamics, 2015, 45, 139-150.	1.7	27
42	The role of stratosphere vortex downward intrusion in a longâ€lasting lateâ€summer Arctic storm. Quarterly Journal of the Royal Meteorological Society, 2017, 143, 1953-1966.	1.0	26
43	ARCTIC CHANGE AND POSSIBLE INFLUENCE ON MID-LATITUDE CLIMATE AND WEATHER: A US CLIVAR White Paper. , 2018, n/a, .		25
44	Impact of the surface wind flow on precipitation characteristics over the southern Himalayas: GPM observations. Atmospheric Research, 2018, 202, 10-22.	1.8	24
45	The Polar Vortex and Extreme Weather: The Beast from the East in Winter 2018. Atmosphere, 2020, 11, 664.	1.0	22
46	Freshwater in the Arctic Ocean 2010â€“2019. Ocean Science, 2021, 17, 1081-1102.	1.3	22
47	Interannual Variability and Long-Term Changes of Atmospheric Circulation over the Chukchi and Beaufort Seas. Journal of Climate, 2014, 27, 4871-4889.	1.2	21
48	Windâ€“sea surface temperatureâ€“sea ice relationship in the Chukchiâ€“Beaufort Seas during autumn. Environmental Research Letters, 2018, 13, 034008.	2.2	19
49	Reexamination of Fram Strait sea ice export and its role in recently accelerated Arctic sea ice retreat. Climate Dynamics, 2019, 53, 1823-1841.	1.7	19
50	Observed Evidence of an Impact of the Antarctic Sea Ice Dipole on the Antarctic Oscillation. Journal of Climate, 2011, 24, 4508-4518.	1.2	18
51	Role of Intense Arctic Storm in Accelerating Summer Sea Ice Melt: An In Situ Observational Study. Geophysical Research Letters, 2021, 48, e2021GL092714.	1.5	18
52	Mesoscale Climatology and Variation of Surface Winds over the Chukchiâ€“Beaufort Coastal Areas. Journal of Climate, 2016, 29, 2721-2739.	1.2	16
53	Driving Roles of Tropospheric and Stratospheric Thermal Anomalies in Intensification and Persistence of the Arctic Superstorm in 2012. Geophysical Research Letters, 2017, 44, 10,017.	1.5	16
54	Arctic Intense Summer Storms and Their Impacts on Sea Iceâ€”A Regional Climate Modeling Study. Atmosphere, 2019, 10, 218.	1.0	16

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55	Critical mechanisms for the formation of extreme arctic sea-ice extent in the summers of 2007 and 1996. Climate Dynamics, 2014, 43, 53-70.	1.7	15
56	Fundamental Characteristics of Tropical Rain Cell Structures as Measured by TRMM PR. Journal of Meteorological Research, 2020, 34, 1129-1150.	0.9	15
57	Impacts of extratropical storm tracks on Arctic sea ice export through Fram Strait. Climate Dynamics, 2019, 52, 2235-2246.	1.7	14
58	North American winterâ€spring storms: Modeling investigation on tropical Pacific sea surface temperature impacts. Geophysical Research Letters, 2013, 40, 5228-5233.	1.5	13
59	Eurasian Winter Storm Activity at the End of the Century: A CMIP5 Multiâ€model Ensemble Projection. Earth's Future, 2018, 6, 61-70.	2.4	12
60	Structure of Cyclonic Precipitation in the Northern Pacific Storm Track Measured by GPM DPR. Journal of Hydrometeorology, 2020, 21, 227-240.	0.7	12
61	Relationship between Extreme Precipitation and Temperature in Two Different Regions: The Tibetan Plateau and Middle-East China. Journal of Meteorological Research, 2019, 33, 870-884.	0.9	8
62	Lateral Boundary of Cirrus Cloud from CALIPSO Observations. Scientific Reports, 2017, 7, 14221.	1.6	7
63	A soil moisture assimilation scheme using satellite-retrieved skin temperature in meso-scale weather forecast model. Atmospheric Research, 2010, 95, 333-352.	1.8	6
64	Assimilating QuikSCAT Ocean Surface Winds with the Weather Research and Forecasting Model for Surface Wind-Field Simulation over the Chukchi/Beaufort Seas. Boundary-Layer Meteorology, 2013, 148, 207-226.	1.2	6
65	Impact of Daily Arctic Sea Ice Variability in CAM3.0 during Fall and Winter. Journal of Climate, 2013, 26, 1939-1955.	1.2	6
66	Preface to the special issue: Towards improving understanding and prediction of Arctic change and its linkage with Eurasian mid-latitude weather and climate. Advances in Atmospheric Sciences, 2018, 35, 1-4.	1.9	6
67	North Atlantic variability driven by stochastic forcing in a simple model. Tellus, Series A: Dynamic Meteorology and Oceanography, 2012, 64, 18695.	0.8	6
68	A Critical Role of Extreme Atlantic Windstorms in Arctic Warming. Asia-Pacific Journal of Atmospheric Sciences, 2020, 56, 17-28.	1.3	5
69	Dynamical Processes in the Arctic Atmosphere. Springer Polar Sciences, 2020, , 1-51.	0.0	5
70	Quality Assessment of Meteorological Data for the Beaufort and Chukchi Sea Coastal Region using Automated Routines. Arctic, 2014, 67, 104.	0.2	5
71	Role of Ferrel cell in daily variability of Northern Hemisphere Annular Mode. Science Bulletin, 2014, 59, 3457-3464.	1.7	4
72	A Modeling Investigation of Northern Hemisphere Extratropical Cyclone Activity in Spring: The Linkage between Extreme Weather and Arctic Sea Ice Forcing. Climate, 2019, 7, 25.	1.2	4

#	ARTICLE	IF	CITATIONS
73	Global warming mode of atmospheric circulation. Atmospheric Science Letters, 2002, 3, 1-13.	0.8	3
74	Coordinated changes of sea ice over the Beaufort and Chukchi seas: regional and seasonal perspectives. Polar Research, 2003, 22, 83-90.	1.6	2
75	A two-way stratosphere-troposphere coupling of submonthly zonal-mean circulations in the Arctic. Advances in Atmospheric Sciences, 2013, 30, 1771-1785.	1.9	2
76	Arctic Storm and Its Impact on the Surface Winds over the Chukchi-Beaufort Seas. , 2016, , 21-34.		2
77	Alaskan Regional Climate Changes in Dynamically Downscaled CMIP5 Simulations. , 2016, , 47-60.		1
78	Coordinated changes of sea ice over the Beaufort and Chukchi seas: regional and seasonal perspectives. Polar Research, 2003, 22, 83-90.	1.6	0