Ming Cai

List of Publications by Year
in descending order

57 papers	1,740 citations	304743 22 h-index	302126 39 g-index
58 all docs	58 docs citations	58 times ranked	1519 citing authors

#	Article	IF	Citations
1	A Decomposition of Feedback Contributions to Polar Warming Amplification. Journal of Climate, 2013, 26, 7023-7043.	3.2	206
2	A new framework for isolating individual feedback processes in coupled general circulation climate models. Part I: formulation. Climate Dynamics, 2009, 32, 873-885.	3.8	102
3	Energy consumption and the unexplained winter warming over northern Asia and North America. Nature Climate Change, 2013, 3, 466-470.	18.8	100
4	Quantifying contributions to polar warming amplification in an idealized coupled general circulation model. Climate Dynamics, 2010, 34, 669-687.	3.8	91
5	Dynamical amplification of polar warming. Geophysical Research Letters, 2005, 32, n/a-n/a.	4.0	84
6	Covariance between Arctic sea ice and clouds within atmospheric state regimes at the satellite footprint level. Journal of Geophysical Research D: Atmospheres, 2015, 120, 12656-12678.	3.3	84
7	A new framework for isolating individual feedback processes in coupled general circulation climate models. Part II: Method demonstrations and comparisons. Climate Dynamics, 2009, 32, 887-900.	3.8	72
8	Meridional and Downward Propagation of Atmospheric Circulation Anomalies. Part I: Northern Hemisphere Cold Season Variability. Journals of the Atmospheric Sciences, 2007, 64, 1880-1901.	1.7	53
9	Individual Feedback Contributions to the Seasonality of Surface Warming. Journal of Climate, 2014, 27, 5653-5669.	3.2	48
10	Dynamic Linkage between Cold Air Outbreaks and Intensity Variations of the Meridional Mass Circulation. Journals of the Atmospheric Sciences, 2015, 72, 3214-3232.	1.7	48
11	Dynamical greenhouse-plus feedback and polar warming amplification. Part II: meridional and vertical asymmetries of the global warming. Climate Dynamics, 2007, 29, 375-391.	3.8	44
12	Robustness of Dynamical Feedbacks from Radiative Forcing: 2% Solar versus 2 Ã— CO2 Experiments in an Idealized GCM. Journals of the Atmospheric Sciences, 2012, 69, 2256-2271.	1.7	43
13	Observational evidence of the delayed response of stratospheric polar vortex variability to ENSO SST anomalies. Climate Dynamics, 2012, 38, 1345-1358.	3.8	38
14	Process-Based Decomposition of the Global Surface Temperature Response to El NiÃ±o in Boreal Winter. Journals of the Atmospheric Sciences, 2012, 69, 1706-1712.	1.7	37
15	Relationship between Warm Airmass Transport into the Upper Polar Atmosphere and Cold Air Outbreaks in Winter. Journals of the Atmospheric Sciences, 2015, 72, 349-368.	1.7	34
16	Feeling the Pulse of the Stratosphere: An Emerging Opportunity for Predicting Continental-Scale Cold-Air Outbreaks 1 Month in Advance. Bulletin of the American Meteorological Society, 2016, 97, 1475-1489.	3.3	32
17	Potential vorticity intrusion index and climate variability of surface temperature. Geophysical Research Letters, 2003, 30, .	4.0	31
18	Meridional and vertical out-of-phase relationships of temperature anomalies associated with the Northern Annular Mode variability. Geophysical Research Letters, 2007, 34, .	4.0	30

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19	Contrasting the eastern Pacific El NiÃ±o and the central Pacific El NiÃ±o: process-based feedback attribution. Climate Dynamics, 2016, 47, 2413-2424.	3.8	28
20	A Total Flow Perspective of Atmospheric Mass and Angular Momentum Circulations: Boreal Winter Mean State. Journals of the Atmospheric Sciences, 2014, 71, 2244-2263.	1.7	27
21	Comparison of the mass circulation and AO indices as indicators of cold air outbreaks in northern winter. Geophysical Research Letters, 2015, 42, 2442-2448.	4.0	26
22	On the Linkage among Strong Stratospheric Mass Circulation, Stratospheric Sudden Warming, and Cold Weather Events. Monthly Weather Review, 2018, 146, 2717-2739.	1.4	24
23	A dissection of the surface temperature biases in the Community Earth System Model. Climate Dynamics, 2014, 43, 2043-2059.	3.8	23
24	A closer look at the relationships between meridional mass circulation pulses in the stratosphere and cold air outbreak patterns in northern hemispheric winter. Climate Dynamics, 2018, 51, 3125-3143.	3.8	23
25	Inferring future warming in the Arctic from the observed global warming trend and CMIP6 simulations. Advances in Climate Change Research, 2021, 12, 499-507.	5.1	23
26	Feedback attribution of the El NiÃ±oâ€“Southern Oscillationâ€“related atmospheric and surface temperature anomalies. Journal of Geophysical Research, 2012, 117, .	3.3	22
27	Tracking the delayed response of the northern winter stratosphere to ENSO using multi reanalyses and model simulations. Climate Dynamics, 2017, 48, 2859-2879.	3.8	22
28	Seasonal Variations of Arctic Lowâ€Level Clouds and Its Linkage to Sea Ice Seasonal Variations. Journal of Geophysical Research D: Atmospheres, 2019, 124, 12206-12226.	3.3	22
29	CFSv2 prediction skill of stratospheric temperature anomalies. Climate Dynamics, 2013, 41, 2231-2249.	3.8	21
30	Air temperature feedback and its contribution to global warming. Science China Earth Sciences, 2018, 61, 1491-1509.	5.2	21
31	Linking quasi-biweekly variability of the South Asian high to atmospheric heating over Tibetan Plateau in summer. Climate Dynamics, 2019, 53, 3419-3429.	3.8	21
32	A less cloudy picture of the inter-model spread in future global warming projections. Nature Communications, 2020, 11, 4472.	12.8	20
33	Meridional and Downward Propagation of Atmospheric Circulation Anomalies. Part II: Southern Hemisphere Cold Season Variability. Journals of the Atmospheric Sciences, 2008, 65, 2343-2359.	1.7	19
34	An Isentropic Mass Circulation View on the Extreme Cold Events in the 2020/21 Winter. Advances in Atmospheric Sciences, 2022, 39, 643-657.	4.3	19
35	Attributing analysis on the model bias in surface temperature in the climate system model FGOALS-s2 through a process-based decomposition method. Advances in Atmospheric Sciences, 2015, 32, 457-469.	4.3	18
36	Process-Based Decomposition of the Decadal Climate Difference between 2002â€“13 and 1984â€“95. Journal of Climate, 2017, 30, 4373-4393.	3.2	17

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37	Isolating the Temperature Feedback Loop and Its Effects on Surface Temperature. Journals of the Atmospheric Sciences, 2016, 73, 3287-3303.	1.7	16
38	Quantifying contributions of climate feedbacks to tropospheric warming in the NCAR CCSM3.0. Climate Dynamics, 2014, 42, 901-917.	3.8	14
39	Inter-Model Warming Projection Spread: Inherited Traits from Control Climate Diversity. Scientific Reports, 2017, 7, 4300.	3.3	14
40	A New Look at the Physics of Rossby Waves: A Mechanicalâ€“Coriolis Oscillation. Journals of the Atmospheric Sciences, 2013, 70, 303-316.	1.7	13
41	A stochastic model with a low-frequency amplification feedback for the stratospheric northern annular mode. Climate Dynamics, 2018, 50, 3757-3773.	3.8	12
42	Atmospheric Dynamics Footprint on the January 2016 Ice Sheet Melting in West Antarctica. Geophysical Research Letters, 2019, 46, 2829-2835.	4.0	10
43	Delineation of thermodynamic and dynamic responses to sea surface temperature forcing associated with El NiÃ±o. Climate Dynamics, 2018, 51, 4329-4344.	3.8	9
44	Progress in research of stratosphere-troposphere interactions: Application of isentropic potential vorticity dynamics and the effects of the Tibetan Plateau. Journal of Meteorological Research, 2014, 28, 714-731.	2.4	8
45	Understanding the systematic air temperature biases in a coupled climate system model through a process-based decomposition method. Climate Dynamics, 2015, 45, 1801-1817.	3.8	8
46	A Lagrangian view of longwave radiative fluxes for understanding the direct heating response to a CO 2 increase. Journal of Geophysical Research D: Atmospheres, 2016, 121, 6191-6214.	3.3	8
47	Sub-seasonal prediction skill for the stratospheric meridional mass circulation variability in CFSv2. Climate Dynamics, 2019, 53, 631-650.	3.8	8
48	Unmasking the negative greenhouse effect over the Antarctic Plateau. Npj Climate and Atmospheric Science, 2018, 1, 17.	6.8	7
49	A Dissection of Energetics of the Geostrophic Flow: Reconciliation of Rossby Wave Energy Flux and Group Velocity. Journals of the Atmospheric Sciences, 2013, 70, 2179-2196.	1.7	6
50	Mass Footprints of the North Pacific Atmospheric Blocking Highs. Journal of Climate, 2015, 28, 4941-4949.	3.2	6
51	The Continuous Mutual Evolution of Equatorial Waves and the Quasi-Biennial Oscillation of Zonal Flow in the Equatorial Stratosphere*. Journals of the Atmospheric Sciences, 2014, 71, 2878-2885.	1.7	5
52	Quantitative decomposition of radiative and non-radiative contributions to temperature anomalies related to siberian high variability. Climate Dynamics, 2015, 45, 1207-1217.	3.8	5
53	Towards a physical understanding of stratospheric cooling under global warming through a process-based decomposition method. Climate Dynamics, 2016, 47, 3767-3782.	3.8	5
54	Diagnosis of Middle-Atmosphere Climate Sensitivity by the Climate Feedbackâ€“Response Analysis Method. Journals of the Atmospheric Sciences, 2016, 73, 3-23.	1.7	4

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55	Equatorial wave expansion of instantaneous flows for diagnosis of equatorial waves from data: Formulation and illustration. Advances in Atmospheric Sciences, 2017, 34, 1219-1234.	4.3	3
56	Climatological features of blocking highs from the perspective of air mass and mass transport. International Journal of Climatology, 2020, 40, 782-794.	3.5	3
57	Understanding the Differences Between TOA and Surface Energy Budget Attributions of Surface Warming. Frontiers in Earth Science, 2021, 9, .	1.8	2