Rong Zhang

List of Publications by Year
in descending order

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72	10,777	44069	85541
papers	citations	48 h-index	71 g-index

76	76	76	9240
all docs	docs citations	times ranked	citing authors

#	Article	IF	Citations
1	Horizontal circulation across density surfaces contributes substantially to the long-term mean northern Atlantic Meridional Overturning Circulation. Communications Earth & Environment, 2021, 2, .	6.8	21
2	Aerosolâ€Forced AMOC Changes in CMIP6 Historical Simulations. Geophysical Research Letters, 2020, 47, e2020GL088166.	4.0	85
3	Climate Sensitivity of GFDL's CM4.0. Journal of Advances in Modeling Earth Systems, 2020, 12, e2019MS001838.	3.8	17
4	The GFDL Global Ocean and Sea Ice Model OM4.0: Model Description and Simulation Features. Journal of Advances in Modeling Earth Systems, 2019, 11, 3167-3211.	3.8	195
5	Structure and Performance of GFDL's CM4.0 Climate Model. Journal of Advances in Modeling Earth Systems, 2019, 11, 3691-3727.	3.8	242
6	A Review of the Role of the Atlantic Meridional Overturning Circulation in Atlantic Multidecadal Variability and Associated Climate Impacts. Reviews of Geophysics, 2019, 57, 316-375.	23.0	298
7	Local and Downstream Relationships between Labrador Sea Water Volume and North Atlantic Meridional Overturning Circulation Variability. Journal of Climate, 2019, 32, 3883-3898.	3.2	41
8	A Multivariate AMV Index and Associated Discrepancies Between Observed and CMIP5 Externally Forced AMV. Geophysical Research Letters, 2019, 46, 4421-4431.	4.0	36
9	Comparison of Mechanisms for Low-Frequency Variability of Summer Arctic Sea Ice in Three Coupled Models. Journal of Climate, 2018, 31, 1205-1226.	3.2	12
10	Underestimated AMOC Variability and Implications for AMV and Predictability in CMIP Models. Geophysical Research Letters, 2018, 45, 4319-4328.	4.0	78
11	The Central Role of Ocean Dynamics in Connecting the North Atlantic Oscillation to the Extratropical Component of the Atlantic Multidecadal Oscillation. Journal of Climate, 2017, 30, 3789-3805.	3.2	122
12	On the discrepancy between observed and CMIP5 multi-model simulated Barents Sea winter sea ice decline. Nature Communications, 2017, 8, 14991.	12.8	63
13	On the persistence and coherence of subpolar sea surface temperature and salinity anomalies associated with the Atlantic multidecadal variability. Geophysical Research Letters, 2017, 44, 7865-7875.	4.0	100
14	Observed and Simulated Fingerprints of Multidecadal Climate Variability and Their Contributions to Periods of Global SST Stagnation. Journal of Climate, 2017, 30, 721-737.	3.2	32
15	The role of Atlantic overturning circulation in the recent decline of Atlantic major hurricane frequency. Nature Communications, 2017, 8, 1695.	12.8	60
16	Fram Strait sea ice export variability and September Arctic sea ice extent over the last 80 years. Cryosphere, 2017, 11, 65-79.	3.9	141
17	Enhanced warming of the <scp>N</scp>orthwest <scp>A</scp>tlantic <scp>O</scp>cean under climate change. Journal of Geophysical Research: Oceans, 2016, 121, 118-132.	2.6	348
18	Prospects for a prolonged slowdown in global warming in the early 21st century. Nature Communications, 2016, 7, 13676.	12.8	44

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19	The North Atlantic Oscillation as a driver of rapid climate change in the Northern Hemisphere. Nature Geoscience, 2016, 9, 509-512.	12.9	197
20	Comment on â€œThe Atlantic Multidecadal Oscillation without a role for ocean circulationâ€• Science, 2016, 352, 1527-1527.	12.6	136
21	The necessity of cloud feedback for a basinâ€scale Atlantic Multidecadal Oscillation. Geophysical Research Letters, 2016, 43, 3955-3963.	4.0	74
22	Impact of the Atlantic meridional overturning circulation on the decadal variability of the Gulf Stream path and regional chlorophyll and nutrient concentrations. Geophysical Research Letters, 2015, 42, 9889-9887.	4.0	26
23	On the evolution of Atlantic Meridional Overturning Circulation Fingerprint and implications for decadal predictability in the North Atlantic. Geophysical Research Letters, 2015, 42, 5419-5426.	4.0	57
24	North Atlantic Multi-Decadal Variability â€" Mechanisms and Predictability. World Scientific Series on Asia-Pacific Weather and Climate, 2015, , 141-157.	0.2	13
25	Impacts on Ocean Heat from Transient Mesoscale Eddies in a Hierarchy of Climate Models. Journal of Climate, 2015, 28, 952-977.	3.2	292
26	Mechanisms for low-frequency variability of summer Arctic sea ice extent. Proceedings of the National Academy of Sciences of the United States of America, 2015, 112, 4570-4575.	7.1	146
27	Reply to Comments on â€œMultiyear Predictions of North Atlantic Hurricane Frequency: Promise and Limitationsâ€• Journal of Climate, 2014, 27, 490-492.	3.2	2
28	Predicting a Decadal Shift in North Atlantic Climate Variability Using the GFDL Forecast System. Journal of Climate, 2014, 27, 6472-6496.	3.2	84
29	Muted change in Atlantic overturning circulation over some glacial-aged Heinrich events. Nature Geoscience, 2014, 7, 144-150.	12.9	94
30	Western Pacific thermocline structure and the Pacific marine Intertropical Convergence Zone during the Last Glacial Maximum. Earth and Planetary Science Letters, 2013, 363, 133-143.	4.4	25
31	Impact of climate warming on upper layer of the Bering Sea. Climate Dynamics, 2013, 40, 327-340.	3.8	11
32	Have Aerosols Caused the Observed Atlantic Multidecadal Variability?. Journals of the Atmospheric Sciences, 2013, 70, 1135-1144.	1.7	282
33	Explaining Extreme Events of 2012 from a Climate Perspective. Bulletin of the American Meteorological Society, 2013, 94, S1-S74.	3.3	229
34	A Predictable AMO-Like Pattern in the GFDL Fully Coupled Ensemble Initialization and Decadal Forecasting System. Journal of Climate, 2013, 26, 650-661.	3.2	97
35	Multiyear Predictions of North Atlantic Hurricane Frequency: Promise and Limitations. Journal of Climate, 2013, 26, 5337-5357.	3.2	57
36	Comment on â€œMultiyear Prediction of Monthly Mean Atlantic Meridional Overturning Circulation at 26.5Â°Nâ€• Science, 2012, 338, 604-604.	12.6	8

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37	Simulated Climate and Climate Change in the GFDL CM2.5 High-Resolution Coupled Climate Model. Journal of Climate, 2012, 25, 2755-2781.	3.2	454
38	Predicting Atlantic meridional overturning circulation (AMOC) variations using subsurface and surface fingerprints. Deep-Sea Research Part II: Topical Studies in Oceanography, 2011, 58, 1895-1903.	1.4	23
39	Sensitivity of the North Atlantic Ocean Circulation to an abrupt change in the Nordic Sea overflow in a high resolution global coupled climate model. Journal of Geophysical Research, 2011, 116, .	3.3	67
40	On the observed relationship between the Pacific Decadal Oscillation and the Atlantic Multi-decadal Oscillation. Journal of Oceanography, 2011, 67, 27-35.	1.7	73
41	Impact of the Atlantic Meridional Overturning Circulation (AMOC) on Arctic Surface Air Temperature and Sea Ice Variability. Journal of Climate, 2011, 24, 6573-6581.	3.2	138
42	On the Path of the Gulf Stream and the Atlantic Meridional Overturning Circulation. Journal of Climate, 2010, 23, 3146-3154.	3.2	82
43	Sensitivity of Climate Change Induced by the Weakening of the Atlantic Meridional Overturning Circulation to Cloud Feedback. Journal of Climate, 2010, 23, 378-389.	3.2	59
44	Latitudinal dependence of Atlantic meridional overturning circulation (AMOC) variations. Geophysical Research Letters, 2010, 37, .	4.0	130
45	Northward intensification of anthropogenically forced changes in the Atlantic meridional overturning circulation (AMOC). Geophysical Research Letters, 2010, 37, .	4.0	4
46	Dynamic millennialâ€scale climate changes in the northwestern Pacific over the past 40,000 years. Geophysical Research Letters, 2010, 37, .	4.0	27
47	Ice Age Terminations. Science, 2009, 326, 248-252.	12.6	794
48	The climatological mean atmospheric transport under weakened Atlantic thermohaline circulation climate scenario. Climate Dynamics, 2009, 32, 343-354.	3.8	1
49	A new method for attributing climate variations over the Atlantic Hurricane Basin's main development region. Geophysical Research Letters, 2009, 36, .	4.0	14
50	On the interpretation of Caribbean paleoâ€temperature reconstructions during the Younger Dryas. Geophysical Research Letters, 2009, 36, .	4.0	26
51	Oceanic link between abrupt changes inÂthe North Atlantic Ocean and theÂAfricanÂmonsoon. Nature Geoscience, 2008, 1, 444-448.	12.9	136
52	Coherent surfaceâ€subsurface fingerprint of the Atlantic meridional overturning circulation. Geophysical Research Letters, 2008, 35, .	4.0	258
53	The Role of Bottom Vortex Stretching on the Path of the North Atlantic Western Boundary Current and on the Northern Recirculation Gyre. Journal of Physical Oceanography, 2007, 37, 2053-2080.	1.7	108
54	Decadal to centennial variability of the Atlantic from observations and models. Geophysical Monograph Series, 2007, , 131-148.	0.1	58

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55	Can the Atlantic Ocean drive the observed multidecadal variability in Northern Hemisphere mean temperature?. Geophysical Research Letters, 2007, 34, .	4.0	167
56	Large fluctuations of dissolved oxygen in the Indian and Pacific oceans during Dansgaardâ€Oeschger oscillations caused by variations of North Atlantic Deep Water subduction. Paleoceanography, 2007, 22, .	3.0	104
57	Anticorrelated multidecadal variations between surface and subsurface tropical North Atlantic. Geophysical Research Letters, 2007, 34, .	4.0	102
58	Impact of the Atlantic Multidecadal Oscillation on North Pacific climate variability. Geophysical Research Letters, 2007, 34, .	4.0	217
59	Impact of Atlantic multidecadal oscillations on India/Sahel rainfall and Atlantic hurricanes. Geophysical Research Letters, 2006, 33, .	4.0	728
60	Impact of Great Salinity Anomalies on the Low-Frequency Variability of the North Atlantic Climate. Journal of Climate, 2006, 19, 470-482.	3.2	62
61	GFDL's CM2 Global Coupled Climate Models. Part II: The Baseline Ocean Simulation. Journal of Climate, 2006, 19, 675-697.	3.2	269
62	GFDL's CM2 Global Coupled Climate Models. Part I: Formulation and Simulation Characteristics. Journal of Climate, 2006, 19, 643-674.	3.2	1,431
63	Formulation of an ocean model for global climate simulations. Ocean Science, 2005, 1, 45-79.	3.4	343
64	Simulated Tropical Response to a Substantial Weakening of the Atlantic Thermohaline Circulation. Journal of Climate, 2005, 18, 1853-1860.	3.2	673
65	Global seiching of thermocline waters between the Atlantic and the Indian-Pacific Ocean Basins. Geophysical Research Letters, 2004, 31, .	4.0	54
66	Reply to Comment by Roberta M. Hotinski, Lee R. Kump, and Karen L. Bice on â€œCould the Late Permian deep ocean have been anoxic?â€. Paleoceanography, 2003, 18, n/a-n/a.	3.0	5
67	Mechanisms of Thermohaline Mode Switching with Application to Warm Equable Climates. Journal of Climate, 2002, 15, 2056-2072.	3.2	10
68	Could the Late Permian deep ocean have been anoxic?. Paleoceanography, 2001, 16, 317-329.	3.0	72
69	Liquid-Liquid Phase Transition: Evidence from Simulations. Physical Review Letters, 1997, 78, 2409-2412.	7.8	270
70	Cooperative molecular motions in water: The liquid-liquid critical point hypothesis. Physica A: Statistical Mechanics and Its Applications, 1997, 236, 19-37.	2.6	39
71	Two sources of deep decadal variability in the central Labrador Sea openâ€ocean convection region. Geophysical Research Letters, 0, , .	4.0	3
72	A Simple Conceptual Model for the Selfâ€sustained Multidecadal AMOC Variability. Geophysical Research Letters, 0, , .	4.0	2