

# Zhengyu Liu

## List of Publications by Year in descending order

Source: <https://exaly.com/author-pdf/11647124/publications.pdf>

Version: 2024-02-01

132  
papers

10,709  
citations

36303

51  
h-index

32842

100  
g-index

133  
all docs

133  
docs citations

133  
times ranked

9086  
citing authors

#	ARTICLE	IF	CITATIONS
1	Nonlinear Responses of Droughts Over China to Volcanic Eruptions at Different Drought Phases. <i>Geophysical Research Letters</i> , 2022, 49, .	4.0	5
2	Assessing the Modern Multi-Decadal Scale Aridification Over the Northern China From a Historical Perspective. <i>Journal of Geophysical Research D: Atmospheres</i> , 2022, 127, .	3.3	4
3	Local Insolation Drives Afro-Asian Monsoon at Orbital-Scale in Holocene. <i>Geophysical Research Letters</i> , 2022, 49, .	4.0	13
4	Possible obliquity-forced warmth in southern Asia during the last glacial stage. <i>Science Bulletin</i> , 2021, 66, 1136-1145.	9.0	71
5	Interpreting the lake-status record of the East Asian monsoon using a hydrological model. <i>Quaternary Research</i> , 2021, 99, 80-95.	1.7	4
6	Seasonal origin of the thermal maxima at the Holocene and the last interglacial. <i>Nature</i> , 2021, 589, 548-553.	27.8	154
7	Vegetation feedback causes delayed ecosystem response to East Asian Summer Monsoon Rainfall during the Holocene. <i>Nature Communications</i> , 2021, 12, 1843.	12.8	42
8	A data-model comparison pinpoints Holocene spatiotemporal pattern of East Asian summer monsoon. <i>Quaternary Science Reviews</i> , 2021, 261, 106911.	3.0	72
9	Abrupt Heinrich Stadial 1 cooling missing in Greenland oxygen isotopes. <i>Science Advances</i> , 2021, 7, .	10.3	24
10	The Driving Mechanisms on Southern Ocean Upwelling Change during the Last Deglaciation. <i>Geosciences (Switzerland)</i> , 2021, 11, 266.	2.2	4
11	Variation of summer precipitation $\delta^{18}O$ on the Chinese Loess Plateau since the last interglacial. <i>Journal of Quaternary Science</i> , 2021, 36, 1214-1220.	2.1	6
12	Remineralization dominating the $\delta^{13}C$ decrease in the mid-depth Atlantic during the last deglaciation. <i>Earth and Planetary Science Letters</i> , 2021, 571, 117106.	4.4	8
13	Deglacial trends in Indo-Pacific warm pool hydroclimate in an isotope-enabled Earth system model and implications for isotope-based paleoclimate reconstructions. <i>Quaternary Science Reviews</i> , 2021, 270, 107188.	3.0	10
14	Deglacial variability of South China hydroclimate heavily contributed by autumn rainfall. <i>Nature Communications</i> , 2021, 12, 5875.	12.8	13
15	A mechanistic understanding of oxygen isotopic changes in the Western United States at the Last Glacial Maximum. <i>Quaternary Science Reviews</i> , 2021, 274, 107255.	3.0	13
16	Reply to: Non-trivial role of internal climate feedback on interglacial temperature evolution. <i>Nature</i> , 2021, 600, E4-E6.	27.8	2
17	Migration of Afro-Asian Monsoon Fringe Since Last Glacial Maximum. <i>Frontiers in Earth Science</i> , 2020, 8, .	1.8	4
18	Speleothems of South American and Asian Monsoons Influenced by a Green Sahara. <i>Geophysical Research Letters</i> , 2020, 47, e2020GL089695.	4.0	16

#	ARTICLE	IF	CITATIONS
19	Quantitatively Isolating Extratropical Atmospheric Impact on the Tropical Pacific Interannual Variability in Coupled Climate Model. <i>IEEE Access</i> , 2020, 8, 163857-163867.	4.2	0
20	Weakening Atlantic overturning circulation causes South Atlantic salinity pile-up. <i>Nature Climate Change</i> , 2020, 10, 998-1003.	18.8	38
21	Half-precessional cycle of thermocline temperature in the western equatorial Pacific and its bihemispheric dynamics. <i>Proceedings of the National Academy of Sciences of the United States of America</i> , 2020, 117, 7044-7051.	7.1	36
22	Varying Sensitivity of East Asia Summer Monsoon Circulation to Temperature Change Since Last Glacial Maximum. <i>Geophysical Research Letters</i> , 2019, 46, 9103-9109.	4.0	12
23	Holocene temperature response to external forcing: assessing the linear response and its spatial and temporal dependence. <i>Climate of the Past</i> , 2019, 15, 1411-1425.	3.4	1
24	The transient response of atmospheric and oceanic heat transports to anthropogenic warming. <i>Nature Climate Change</i> , 2019, 9, 222-226.	18.8	28
25	Assessing the Ability of Zonal $\hat{\tau}^{18}$ Contrast in Benthic Foraminifera to Reconstruct Deglacial Evolution of Atlantic Meridional Overturning Circulation. <i>Paleoceanography and Paleoclimatology</i> , 2019, 34, 800-812.	2.9	10
26	Mechanisms and Predictability of Pacific Decadal Variability. <i>Current Climate Change Reports</i> , 2018, 4, 128-144.	8.6	60
27	A Possible Role of Dust in Resolving the Holocene Temperature Conundrum. <i>Scientific Reports</i> , 2018, 8, 4434.	3.3	37
28	Potential predictability and forecast skill in ensemble climate forecast: a skill-persistence rule. <i>Climate Dynamics</i> , 2018, 51, 2725-2742.	3.8	10
29	Last Century Warming Over the Canadian Atlantic Shelves Linked to Weak Atlantic Meridional Overturning Circulation. <i>Geophysical Research Letters</i> , 2018, 45, 12,376.	4.0	33
30	Examining El Niño in the Holocene: implications and challenges. <i>National Science Review</i> , 2018, 5, 807-809.	9.5	5
31	Interpreting Precession-Driven $\hat{\tau}^{18}$ Variability in the South Asian Monsoon Region. <i>Journal of Geophysical Research D: Atmospheres</i> , 2018, 123, 5927-5946.	3.3	49
32	A Review of Paleo El Niño-Southern Oscillation. <i>Atmosphere</i> , 2018, 9, 130.	2.3	54
33	Understanding the control of extratropical atmospheric variability on ENSO using a coupled data assimilation approach. <i>Climate Dynamics</i> , 2017, 48, 3139-3160.	3.8	29
34	Reduced ENSO variability at the LGM revealed by an isotope-enabled Earth system model. <i>Geophysical Research Letters</i> , 2017, 44, 6984-6992.	4.0	71
35	Asynchronous warming and $\hat{\tau}^{18}$ evolution of deep Atlantic water masses during the last deglaciation. <i>Proceedings of the National Academy of Sciences of the United States of America</i> , 2017, 114, 11075-11080.	7.1	38
36	The global monsoon across time scales: Mechanisms and outstanding issues. <i>Earth-Science Reviews</i> , 2017, 174, 84-121.	9.1	290

#	ARTICLE	IF	CITATIONS
37	A Systematic Comparison of Particle Filter and EnKF in Assimilating Time-Averaged Observations. <i>Journal of Geophysical Research D: Atmospheres</i> , 2017, 122, 13,155.	3.3	6
38	Greening of the Sahara suppressed ENSO activity during the mid-Holocene. <i>Nature Communications</i> , 2017, 8, 16020.	12.8	63
39	Investigating the Direct Meltwater Effect in Terrestrial Oxygen Isotope Paleoclimate Records Using an Isotope-Enabled Earth System Model. <i>Geophysical Research Letters</i> , 2017, 44, 12,501.	4.0	10
40	Midlatitude land surface temperature impacts the timing and structure of glacial maxima. <i>Geophysical Research Letters</i> , 2017, 44, 984-992.	4.0	19
41	Modeling precipitation &lt;i>δ</i>18O variability in East Asia since the Last Glacial Maximum: temperature and amount effects across different timescales. <i>Climate of the Past</i> , 2016, 12, 2077-2085.	3.4	6
42	Correlation and anti-correlation of the East Asian summer and winter monsoons during the last 21,000 years. <i>Nature Communications</i> , 2016, 7, 11999.	12.8	135
43	Understanding Bjerknes Compensation in Atmosphere and Ocean Heat Transports Using a Coupled Box Model. <i>Journal of Climate</i> , 2016, 29, 2145-2160.	3.2	22
44	Heterodynes dominate precipitation isotopes in the East Asian monsoon region, reflecting interaction of multiple climate factors. <i>Earth and Planetary Science Letters</i> , 2016, 455, 196-206.	4.4	46
45	Understanding the temporal slope of the temperature-water isotope relation during the deglaciation using isoCAM3: The slope equation. <i>Journal of Geophysical Research D: Atmospheres</i> , 2016, 121, 10,342.	3.3	10
46	Contrasting Responses of the Hadley Circulation to Equatorially Asymmetric and Symmetric Meridional Sea Surface Temperature Structures. <i>Journal of Climate</i> , 2016, 29, 8949-8963.	3.2	30
47	Abrupt intensification of ENSO forced by deglacial ice-sheet retreat in CCSM3. <i>Climate Dynamics</i> , 2016, 46, 1877-1891.	3.8	21
48	Reduced interdecadal variability of Atlantic Meridional Overturning Circulation under global warming. <i>Proceedings of the National Academy of Sciences of the United States of America</i> , 2016, 113, 3175-3178.	7.1	38
49	Heat Transport Compensation in Atmosphere and Ocean over the Past 22,000 Years. <i>Scientific Reports</i> , 2015, 5, 16661.	3.3	20
50	Strongly Coupled Data Assimilation Using Leading Averaged Coupled Covariance (LACC). Part II: CGCM Experiments*. <i>Monthly Weather Review</i> , 2015, 143, 4645-4659.	1.4	28
51	Astronomical and glacial forcing of East Asian summer monsoon variability. <i>Quaternary Science Reviews</i> , 2015, 115, 132-142.	3.0	141
52	Regional and global forcing of glacier retreat during the last deglaciation. <i>Nature Communications</i> , 2015, 6, 8059.	12.8	71
53	On the stability of the Atlantic meridional overturning circulation during the last deglaciation. <i>Climate Dynamics</i> , 2015, 44, 1257-1275.	3.8	19
54	Assessing the stability of the Atlantic meridional overturning circulation of the past, present, and future. <i>Journal of Meteorological Research</i> , 2014, 28, 803-819.	2.4	9

#	ARTICLE	IF	CITATIONS
55	The Holocene temperature conundrum. Proceedings of the National Academy of Sciences of the United States of America, 2014, 111, E3501-5.	7.1	344
56	Why is the AMOC Monostable in Coupled General Circulation Models?. Journal of Climate, 2014, 27, 2427-2443.	3.2	49
57	Coherent changes of southeastern equatorial and northern African rainfall during the last deglaciation. Science, 2014, 346, 1223-1227.	12.6	172
58	Evolution and forcing mechanisms of El Niño over the past 21,000 years. Nature, 2014, 515, 550-553.	27.8	228
59	Temperature and leaf wax δ <sup>2</sup> H records demonstrate seasonal and regional controls on Asian monsoon proxies. Geology, 2014, 42, 1075-1078.	4.4	46
60	Linear weakening of the AMOC in response to receding glacial ice sheets in CCSM3. Geophysical Research Letters, 2014, 41, 6252-6258.	4.0	53
61	Greenland temperature response to climate forcing during the last deglaciation. Science, 2014, 345, 1177-1180.	12.6	226
62	Deglacial δ <sup>18</sup> O and hydrologic variability in the tropical Pacific and Indian Oceans. Earth and Planetary Science Letters, 2014, 387, 240-251.	4.4	69
63	Chinese cave records and the East Asia Summer Monsoon. Quaternary Science Reviews, 2014, 83, 115-128.	3.0	452
64	The role of North Brazil Current transport in the paleoclimate of the Brazilian Nordeste margin and paleoceanography of the western tropical Atlantic during the late Quaternary. Palaeogeography, Palaeoclimatology, Palaeoecology, 2014, 415, 3-13.	2.3	58
65	The ice age ecologist: testing methods for reserve prioritization during the last global warming. Global Ecology and Biogeography, 2013, 22, 289-301.	5.8	47
66	Modeling the climatic drivers of spatial patterns in vegetation composition since the Last Glacial Maximum. Ecography, 2013, 36, 460-473.	4.5	57
67	Global Hydrological Cycle Response to Rapid and Slow Global Warming. Journal of Climate, 2013, 26, 8781-8786.	3.2	23
68	Northern Hemisphere forcing of Southern Hemisphere climate during the last deglaciation. Nature, 2013, 494, 81-85.	27.8	186
69	Younger Dryas cooling and the Greenland climate response to CO <sub>2</sub> . Proceedings of the National Academy of Sciences of the United States of America, 2012, 109, 11101-11104.	7.1	85
70	Dynamics of Interdecadal Climate Variability: A Historical Perspective*. Journal of Climate, 2012, 25, 1963-1995.	3.2	204
71	Global warming preceded by increasing carbon dioxide concentrations during the last deglaciation. Nature, 2012, 484, 49-54.	27.8	1,141
72	Global climate evolution during the last deglaciation. Proceedings of the National Academy of Sciences of the United States of America, 2012, 109, E1134-42.	7.1	422

#	ARTICLE	IF	CITATIONS
73	No-analog climates and shifting realized niches during the late quaternary: implications for 21st-century predictions by species distribution models. <i>Global Change Biology</i> , 2012, 18, 1698-1713.	9.5	243
74	On the observed relationship between the Pacific Decadal Oscillation and the Atlantic Multi-decadal Oscillation. <i>Journal of Oceanography</i> , 2011, 67, 27-35.	1.7	73
75	Modeling the time-dependent response of the Asian summer monsoon to obliquity forcing in a coupled GCM: a PHASEMAP sensitivity experiment. <i>Climate Dynamics</i> , 2011, 36, 695-710.	3.8	29
76	Calendar effect on phase study in paleoclimate transient simulation with orbital forcing. <i>Climate Dynamics</i> , 2011, 37, 1949-1960.	3.8	37
77	Ice-shelf collapse from subsurface warming as a trigger for Heinrich events. <i>Proceedings of the National Academy of Sciences of the United States of America</i> , 2011, 108, 13415-13419.	7.1	278
78	Estimating the Observed Atmospheric Response to SST Anomalies: Maximum Covariance Analysis, Generalized Equilibrium Feedback Assessment, and Maximum Response Estimation. <i>Journal of Climate</i> , 2011, 24, 2523-2539.	3.2	25
79	Observed Atmospheric Responses to Global SST Variability Modes: A Unified Assessment Using GEFA*. <i>Journal of Climate</i> , 2010, 23, 1739-1759.	3.2	36
80	On the Mechanism of Pacific Multidecadal Climate Variability in CCSM3: The Role of the Subpolar North Pacific Ocean. <i>Journal of Physical Oceanography</i> , 2009, 39, 2052-2076.	1.7	34
81	Basin mode of Indian Ocean sea surface temperature and Northern Hemisphere circumglobal teleconnection. <i>Geophysical Research Letters</i> , 2009, 36, .	4.0	55
82	Tropical SST Response to Global Warming in the Twentieth Century. <i>Journal of Climate</i> , 2009, 22, 1305-1312.	3.2	5
83	Simulation of the evolutionary response of global summer monsoons to orbital forcing over the past 280,000 years. <i>Climate Dynamics</i> , 2008, 30, 567-579.	3.8	230
84	Statistical and dynamical assessment of vegetation feedbacks on climate over the boreal forest. <i>Climate Dynamics</i> , 2008, 31, 691-712.	3.8	47
85	Combined statistical and dynamical assessment of simulated vegetation-rainfall interactions in North Africa during the mid-Holocene. <i>Global Change Biology</i> , 2008, 14, 347-368.	9.5	48
86	Non-linear alignment of El Niño to the 11-yr solar cycle. <i>Geophysical Research Letters</i> , 2008, 35, .	4.0	65
87	Southern Hemisphere forcing of Pliocene to O and the evolution of Indo-Asian monsoons. <i>Paleoceanography</i> , 2008, 23, .	3.0	139
88	On the Assessment of Nonlocal Climate Feedback. Part I: The Generalized Equilibrium Feedback Assessment*. <i>Journal of Climate</i> , 2008, 21, 134-148.	3.2	48
89	Origin of Pacific Multidecadal Variability in Community Climate System Model, Version 3 (CCSM3): A Combined Statistical and Dynamical Assessment. <i>Journal of Climate</i> , 2008, 21, 114-133.	3.2	37
90	Potential Impact of the Eurasian Boreal Forest on North Pacific Climate Variability*. <i>Journal of Climate</i> , 2007, 20, 981-992.	3.2	13

#	ARTICLE	IF	CITATIONS
91	Atmospheric Teleconnections of Tropical Atlantic Variability: Interhemispheric, Tropicalâ€“Extratropical, and Cross-Basin Interactions. <i>Journal of Climate</i> , 2007, 20, 856-870.	3.2	67
92	Seasonal and Long-Term Atmospheric Responses to Reemerging North Pacific Ocean Variability: A Combined Dynamical and Statistical Assessment*. <i>Journal of Climate</i> , 2007, 20, 955-980.	3.2	56
93	Global Vegetation and Climate Change due to Future Increases in CO2 as Projected by a Fully Coupled Model with Dynamic Vegetation*. <i>Journal of Climate</i> , 2007, 20, 70-90.	3.2	94
94	Atmospheric bridge, oceanic tunnel, and global climatic teleconnections. <i>Reviews of Geophysics</i> , 2007, 45, .	23.0	322
95	Impact of the Indian Ocean SST basin mode on the Asian summer monsoon. <i>Geophysical Research Letters</i> , 2007, 34, .	4.0	628
96	An observational study of the impact of the North Pacific SST on the atmosphere. <i>Geophysical Research Letters</i> , 2006, 33, n/a-n/a.	4.0	57
97	On the cause of abrupt vegetation collapse in North Africa during the Holocene: Climate variability vs. vegetation feedback. <i>Geophysical Research Letters</i> , 2006, 33, .	4.0	99
98	A Mechanism for Abrupt Climate Change Associated with Tropical Pacific SSTs*. <i>Journal of Climate</i> , 2006, 19, 242-256.	3.2	8
99	Assessing Global Vegetationâ€“Climate Feedbacks from Observations*. <i>Journal of Climate</i> , 2006, 19, 787-814.	3.2	189
100	Extratropical control of recent tropical Pacific decadal climate variability: a relay teleconnection. <i>Climate Dynamics</i> , 2006, 28, 99-112.	3.8	37
101	Hemispheric Insolation Forcing of the Indian Ocean and Asian Monsoon: Local versus Remote Impacts*. <i>Journal of Climate</i> , 2006, 19, 6195-6208.	3.2	45
102	The 1976/77 North Pacific Climate Regime Shift: The Role of Subtropical Ocean Adjustment and Coupled Oceanâ€“Atmosphere Feedbacks*. <i>Journal of Climate</i> , 2005, 18, 5125-5140.	3.2	56
103	North Atlantic Decadal Variability: Airâ€“Sea Coupling, Oceanic Memory, and Potential Northern Hemisphere Resonance*. <i>Journal of Climate</i> , 2005, 18, 331-349.	3.2	76
104	Tropicalâ€“extratropical climate interaction as revealed in idealized coupled climate model experiments. <i>Climate Dynamics</i> , 2005, 24, 863-879.	3.8	34
105	Modeling surgery: A new way toward understanding earth climate variability. <i>Journal of Ocean University of China</i> , 2005, 4, 306-314.	1.2	0
106	Periodic Forcing and ENSO Suppression in the Cane-Zebiak Model. <i>Journal of Oceanography</i> , 2005, 61, 109-113.	1.7	11
107	Rethinking Tropical Ocean Response to Global Warming: The Enhanced Equatorial Warming*. <i>Journal of Climate</i> , 2005, 18, 4684-4700.	3.2	212
108	How does extratropical warming affect ENSO?. <i>Geophysical Research Letters</i> , 2005, 32, .	4.0	13

#	ARTICLE	IF	CITATIONS
109	Coupled ocean-atmosphere response to north tropical Atlantic SST: Tropical Atlantic dipole and ENSO. <i>Geophysical Research Letters</i> , 2005, 32, .	4.0	29
110	Tropical Ocean Decadal Variability and Resonance of Planetary Wave Basin Modes. Part II: Numerical Study*. <i>Journal of Climate</i> , 2004, 17, 1711-1721.	3.2	6
111	Influence of Extratropical Thermal and Wind Forcings on Equatorial Thermocline in an Ocean GCM*. <i>Journal of Physical Oceanography</i> , 2004, 34, 174-187.	1.7	11
112	Atmospheric Response to North Pacific SST: The Role of Ocean-Atmosphere Coupling*. <i>Journal of Climate</i> , 2004, 17, 1859-1882.	3.2	134
113	Relative importance of wind and buoyancy forcing for interdecadal regime shifts in the Pacific Ocean. <i>Science in China Series D: Earth Sciences</i> , 2003, 46, 417-427.	0.9	14
114	Oceanic conditions in the eastern equatorial Pacific during the onset of ENSO in the Holocene. <i>Quaternary Research</i> , 2003, 60, 142-148.	1.7	26
115	Extratropical control of tropical climate, the atmospheric bridge and oceanic tunnel. <i>Geophysical Research Letters</i> , 2003, 30, n/a-n/a.	4.0	74
116	Modeling El Niño and its tropical teleconnections during the last glacial-interglacial cycle. <i>Geophysical Research Letters</i> , 2003, 30, n/a-n/a.	4.0	86
117	A Simple Model Study of ENSO Suppression by External Periodic Forcing*. <i>Journal of Climate</i> , 2002, 15, 1088-1098.	3.2	72
118	Is Tropical Atlantic Variability driven by the North Atlantic Oscillation?. <i>Geophysical Research Letters</i> , 2002, 29, 31-1.	4.0	41
119	Tropical cooling at the last glacial maximum and extratropical ocean ventilation1. <i>Geophysical Research Letters</i> , 2002, 29, 48-1-48-4.	4.0	47
120	The pathway of the interdecadal variability in the Pacific Ocean. <i>Science Bulletin</i> , 2000, 45, 1555-1561.	1.7	26
121	Modeling climate shift of El Niño variability in the Holocene. <i>Geophysical Research Letters</i> , 2000, 27, 2265-2268.	4.0	289
122	Forced Planetary Wave Response in a Thermocline Gyre. <i>Journal of Physical Oceanography</i> , 1999, 29, 1036-1055.	1.7	102
123	Planetary wave modes in the thermocline: Non-Doppler-shift mode, advective mode and Green mode. <i>Quarterly Journal of the Royal Meteorological Society</i> , 1999, 125, 1315-1339.	2.7	46
124	Pacific subtropical-tropical thermocline water exchange in the National Centers for Environmental Prediction ocean model. <i>Journal of Geophysical Research</i> , 1999, 104, 11065-11076.	3.3	51
125	The Role of Ocean in the Response of Tropical Climatology to Global Warming: The West-East SST Contrast. <i>Journal of Climate</i> , 1998, 11, 864-875.	3.2	34
126	Why Is There a Tritium Maximum in the Central Equatorial Pacific Thermocline?. <i>Journal of Physical Oceanography</i> , 1998, 28, 1527-1533.	1.7	25



#	ARTICLE	IF	CITATIONS
127	A Coupled Theory of Tropical Climatology: Warm Pool, Cold Tongue, and Walker Circulation. Journal of Climate, 1997, 10, 1662-1679.	3.2	53
128	Oceanic Regulation of the Atmospheric Walker Circulation. Bulletin of the American Meteorological Society, 1997, 78, 407-412.	3.3	12
129	Equatorward Propagation of Coupled Air-Sea Disturbances with Application to the Annual Cycle of the Eastern Tropical Pacific. Journals of the Atmospheric Sciences, 1994, 51, 3807-3822.	1.7	69
130	A GCM Study of Tropical-Subtropical Upper-Ocean Water Exchange. Journal of Physical Oceanography, 1994, 24, 2606-2623.	1.7	180
131	Toward Understanding Tropical Atlantic Variability Using Coupled Modeling Surgery. Geophysical Monograph Series, 0, , 157-170.	0.1	12
132	Responses of East Asian winter monsoon-Australian summer monsoon to Local and Remote orbital forcing during Holocene. Geophysical Research Letters, 0, , .	4.0	2