

Jian Lu

List of Publications by Year in descending order

Source: <https://exaly.com/author-pdf/1554818/publications.pdf>

Version: 2024-02-01

85
papers

7,672
citations

117571

34
h-index

53190

85
g-index

88
all docs

88
docs citations

88
times ranked

7721
citing authors

#	ARTICLE	IF	CITATIONS
1	Decoding the dynamics of poleward shifting climate zones using aqua-planet model simulations. <i>Climate Dynamics</i> , 2022, 58, 3513-3526.	1.7	9
2	Conservation of Dry Air, Water, and Energy in CAM and Its Potential Impact on Tropical Rainfall. <i>Journal of Climate</i> , 2022, 35, 2895-2917.	1.2	2
3	Neutral Mode Dominates the Forced Global and Regional Surface Temperature Response in the Past and Future. <i>Geophysical Research Letters</i> , 2022, 49, .	1.5	1
4	Double-ITCZ as an Emergent Constraint for Future Precipitation Over Mediterranean Climate Regions in the North Hemisphere. <i>Geophysical Research Letters</i> , 2021, 48, e2020GL091569.	1.5	12
5	Future Changes in the Great Plains Low-Level Jet Governed by Seasonally Dependent Pattern Changes in the North Atlantic Subtropical High. <i>Geophysical Research Letters</i> , 2021, 48, e2020GL090356.	1.5	12
6	Evidence for Coupling Between the Subseasonal Oscillations in the Southern Hemisphere Midlatitude Ocean and Atmosphere. <i>Journal of Geophysical Research D: Atmospheres</i> , 2021, 126, e2020JD033872.	1.2	2
7	The Leading Modes of Asian Summer Monsoon Variability as Pulses of Atmospheric Energy Flow. <i>Geophysical Research Letters</i> , 2021, 48, e2020GL091629.	1.5	6
8	The Evolution Dynamical Processes of Ural Blocking Through the Lens of Local Finite-Amplitude Wave Activity Budget Analysis. <i>Geophysical Research Letters</i> , 2021, 48, e2020GL091727.	1.5	3
9	The Dominant Contribution of Southern Ocean Heat Uptake to Time-Evolving Radiative Feedback in CESM. <i>Geophysical Research Letters</i> , 2021, 48, e2021GL093302.	1.5	11
10	Emergence of seasonal delay of tropical rainfall during 1979-2019. <i>Nature Climate Change</i> , 2021, 11, 605-612.	8.1	25
11	How Moist and Dry Intrusions Control the Local Hydrologic Cycle in Present and Future Climates. <i>Journal of Climate</i> , 2021, 34, 4343-4359.	1.2	0
12	Linear Response Function Reveals the Most Effective Remote Forcing in Causing September Arctic Sea Ice Melting in CESM. <i>Geophysical Research Letters</i> , 2021, 48, e2021GL094189.	1.5	3
13	Multiple Metrics Informed Projections of Future Precipitation in China. <i>Geophysical Research Letters</i> , 2021, 48, e2021GL093810.	1.5	8
14	Seasonally dependent future changes in the US Midwest hydroclimate and extremes. <i>Journal of Climate</i> , 2021, , 1-35.	1.2	5
15	Uncertainty in El Niño-like warming and California precipitation changes linked by the Interdecadal Pacific Oscillation. <i>Nature Communications</i> , 2021, 12, 6484.	5.8	15
16	Responses of the Hadley Circulation to Regional Sea Surface Temperature Changes. <i>Journal of Climate</i> , 2020, 33, 429-441.	1.2	24
17	Contrasting Phase Changes of Precipitation Annual Cycle Between Land and Ocean Under Global Warming. <i>Geophysical Research Letters</i> , 2020, 47, e2020GL090327.	1.5	19
18	Tropical Expansion Driven by Poleward Advancing Midlatitude Meridional Temperature Gradients. <i>Journal of Geophysical Research D: Atmospheres</i> , 2020, 125, e2020JD033158.	1.2	37

#	ARTICLE	IF	CITATIONS
19	Contrasting Recent and Future ITCZ Changes From Distinct Tropical Warming Patterns. <i>Geophysical Research Letters</i> , 2020, 47, e2020GL089846.	1.5	12
20	Sensitivity of the Latitude of the Westerly Jet Stream to Climate Forcing. <i>Geophysical Research Letters</i> , 2020, 47, e2019GL086563.	1.5	15
21	Neutral modes of surface temperature and the optimal ocean thermal forcing for global cooling. <i>Npj Climate and Atmospheric Science</i> , 2020, 3, .	2.6	6
22	Sensitivity of Surface Temperature to Oceanic Forcing via q-Flux Greenâ€™s Function Experiments. Part III: Asymmetric Response to Warming and Cooling. <i>Journal of Climate</i> , 2020, 33, 1283-1297.	1.2	10
23	On the Oceanic Origin for the Enhanced Seasonal Cycle of SST in the Midlatitudes under Global Warming. <i>Journal of Climate</i> , 2020, 33, 8401-8413.	1.2	14
24	Sub-cloud moist entropy curvature as a predictor for changes in the seasonal cycle of tropical precipitation. <i>Climate Dynamics</i> , 2019, 53, 3463-3479.	1.7	6
25	Contributions of Extreme and Nonâ€™Extreme Precipitation to California Precipitation Seasonality Changes Under Warming. <i>Geophysical Research Letters</i> , 2019, 46, 13470-13478.	1.5	29
26	Extreme Wetâ€™Bulb Temperatures in China: The Significant Role of Moisture. <i>Journal of Geophysical Research D: Atmospheres</i> , 2019, 124, 11944-11960.	1.2	24
27	Black Carbon Increases Frequency of Extreme ENSO Events. <i>Journal of Climate</i> , 2019, 32, 8323-8333.	1.2	11
28	How Tropical Pacific Surface Cooling Contributed to Accelerated Sea Ice Melt from 2007 to 2012 as Ice Is Thinned by Anthropogenic Forcing. <i>Journal of Climate</i> , 2019, 32, 8583-8602.	1.2	41
29	Larger Increases in More Extreme Local Precipitation Events as Climate Warms. <i>Geophysical Research Letters</i> , 2019, 46, 6885-6891.	1.5	76
30	Mechanisms for an Amplified Precipitation Seasonal Cycle in the U.S. West Coast under Global Warming. <i>Journal of Climate</i> , 2019, 32, 4681-4698.	1.2	24
31	Thermodynamic and Dynamic Mechanisms for Hydrological Cycle Intensification over the Full Probability Distribution of Precipitation Events. <i>Journals of the Atmospheric Sciences</i> , 2019, 76, 497-516.	0.6	38
32	Precipitation characteristic changes due to global warming in a highâ€™resolution (16 km) ECMWF simulation. <i>Quarterly Journal of the Royal Meteorological Society</i> , 2019, 145, 303-317.	1.0	32
33	Weakening of Upward Mass but Intensification of Upward Energy Transport in a Warming Climate. <i>Geophysical Research Letters</i> , 2019, 46, 1672-1680.	1.5	8
34	Remote Drying in the North Atlantic as a Common Response to Precessional Changes and CO ₂ Increase Over Land. <i>Geophysical Research Letters</i> , 2018, 45, 3615-3624.	1.5	15
35	Southern Ocean Heat Uptake, Redistribution, and Storage in a Warming Climate: The Role of Meridional Overturning Circulation. <i>Journal of Climate</i> , 2018, 31, 4727-4743.	1.2	66
36	The Active Role of the Ocean in the Temporal Evolution of Climate Sensitivity. <i>Geophysical Research Letters</i> , 2018, 45, 306-315.	1.5	33

#	ARTICLE	IF	CITATIONS
37	Resolution Dependence and Rossby Wave Modulation of Atmospheric Rivers in an Aquaplanet Model. <i>Journal of Geophysical Research D: Atmospheres</i> , 2018, 123, 6297-6311.	1.2	12
38	Sensitivity of the ITCZ Location to Ocean Forcing Via Q ₀ -Flux Green's Function Experiments. <i>Geophysical Research Letters</i> , 2018, 45, 13,116.	1.5	12
39	Sensitivity of Surface Temperature to Oceanic Forcing via Q ₀ -Flux Green's Function Experiments. Part II: Feedback Decomposition and Polar Amplification. <i>Journal of Climate</i> , 2018, 31, 6745-6761.	1.2	16
40	Future Changes in Seasonality of the North Pacific and North Atlantic Subtropical Highs. <i>Geophysical Research Letters</i> , 2018, 45, 11,959.	1.5	42
41	Response of the Hydrological Cycle in Asian Monsoon Systems to Global Warming Through the Lens of Water Vapor Wave Activity Analysis. <i>Geophysical Research Letters</i> , 2018, 45, 11,904.	1.5	9
42	Re-examining tropical expansion. <i>Nature Climate Change</i> , 2018, 8, 768-775.	8.1	140
43	Seasonally dependent responses of subtropical highs and tropical rainfall to anthropogenic warming. <i>Nature Climate Change</i> , 2018, 8, 787-792.	8.1	63
44	Roles of SST versus Internal Atmospheric Variability in Winter Extreme Precipitation Variability along the U.S. West Coast. <i>Journal of Climate</i> , 2018, 31, 8039-8058.	1.2	39
45	Enhanced hydrological extremes in the western United States under global warming through the lens of water vapor wave activity. <i>Npj Climate and Atmospheric Science</i> , 2018, 1, .	2.6	10
46	On the Relative Roles of the Atmosphere and Ocean in the Atlantic Multidecadal Variability. <i>Geophysical Research Letters</i> , 2018, 45, 9186-9196.	1.5	19
47	Sensitivity of Surface Temperature to Oceanic Forcing via q-Flux Green's Function Experiments. Part I: Linear Response Function. <i>Journal of Climate</i> , 2018, 31, 3625-3641.	1.2	25
48	A Robust Increase of the Intraseasonal Periodic Behavior of the Precipitation and Eddy Kinetic Energy in a Warming Climate. <i>Geophysical Research Letters</i> , 2018, 45, 7790-7799.	1.5	6
49	Investigating the zonal wind response to SST warming using transient ensemble AGCM experiments. <i>Climate Dynamics</i> , 2017, 48, 523-540.	1.7	3
50	Examining the Hydrological Variations in an Aquaplanet World Using Wave Activity Transformation. <i>Journal of Climate</i> , 2017, 30, 2559-2576.	1.2	7
51	The Role of Ocean Dynamical Thermostat in Delaying the El Niño-Like Response over the Equatorial Pacific to Climate Warming. <i>Journal of Climate</i> , 2017, 30, 2811-2827.	1.2	47
52	Local increase of anticyclonic wave activity over northern Eurasia under amplified Arctic warming. <i>Geophysical Research Letters</i> , 2017, 44, 3299-3308.	1.5	23
53	Exploring the effects of a nonhydrostatic dynamical core in high-resolution aquaplanet simulations. <i>Journal of Geophysical Research D: Atmospheres</i> , 2017, 122, 3245-3265.	1.2	21
54	The tropical rain belts with an annual cycle and a continent model intercomparison project: TRACMIP. <i>Journal of Advances in Modeling Earth Systems</i> , 2016, 8, 1868-1891.	1.3	47

#	ARTICLE	IF	CITATIONS
55	Uncertainties in Projecting Future Changes in Atmospheric Rivers and Their Impacts on Heavy Precipitation over Europe. <i>Journal of Climate</i> , 2016, 29, 6711-6726.	1.2	75
56	A projection of changes in landfalling atmospheric river frequency and extreme precipitation over western North America from the Large Ensemble CESM simulations. <i>Geophysical Research Letters</i> , 2016, 43, 1357-1363.	1.5	128
57	Uncertainty in future projections of the North Pacific subtropical high and its implication for California winter precipitation change. <i>Journal of Geophysical Research D: Atmospheres</i> , 2016, 121, 795-806.	1.2	29
58	Exploring the impacts of physics and resolution on aquaâ€œplanet simulations from a nonhydrostatic global variableâ€œresolution modeling framework. <i>Journal of Advances in Modeling Earth Systems</i> , 2016, 8, 1751-1768.	1.3	28
59	Dynamical and thermodynamical modulations on future changes of landfalling atmospheric rivers over western North America. <i>Geophysical Research Letters</i> , 2015, 42, 7179-7186.	1.5	153
60	Local finiteâ€œamplitude wave activity as an objective diagnostic of midlatitude extreme weather. <i>Geophysical Research Letters</i> , 2015, 42, 10952.	1.5	54
61	Exploring a Multiresolution Approach Using AMIP Simulations. <i>Journal of Climate</i> , 2015, 28, 5549-5574.	1.2	51
62	Resolution and Dynamical Core Dependence of Atmospheric River Frequency in Global Model Simulations. <i>Journal of Climate</i> , 2015, 28, 2764-2776.	1.2	66
63	Toward the Dynamical Convergence on the Jet Stream in Aquaplanet AGCMs. <i>Journal of Climate</i> , 2015, 28, 6763-6782.	1.2	42
64	The Transient Circulation Response to Radiative Forcings and Sea Surface Warming*. <i>Journal of Climate</i> , 2014, 27, 9323-9336.	1.2	14
65	The Role of Subtropical Irreversible PV Mixing in the Zonal Mean Circulation Response to Global Warmingâ€œLike Thermal Forcing. <i>Journal of Climate</i> , 2014, 27, 2297-2316.	1.2	44
66	The robust dynamical contribution to precipitation extremes in idealized warming simulations across model resolutions. <i>Geophysical Research Letters</i> , 2014, 41, 2971-2978.	1.5	29
67	Robust spring drying in the southwestern U.S. and seasonal migration of wet/dry patterns in a warmer climate. <i>Geophysical Research Letters</i> , 2014, 41, 1745-1751.	1.5	64
68	Delineating the Eddyâ€œZonal Flow Interaction in the Atmospheric Circulation Response to Climate Forcing: Uniform SST Warming in an Idealized Aquaplanet Model. <i>Journals of the Atmospheric Sciences</i> , 2013, 70, 2214-2233.	0.6	32
69	Sensitivities and Mechanisms of the Zonal Mean Atmospheric Circulation Response to Tropical Warming. <i>Journals of the Atmospheric Sciences</i> , 2013, 70, 2487-2504.	0.6	54
70	Improved annular mode variability in a global atmospheric general circulation model with 16 km horizontal resolution. <i>Geophysical Research Letters</i> , 2013, 40, 4893-4899.	1.5	3
71	The Role of Oceanic Feedback in the Climate Response to Doubling CO ₂ . <i>Journal of Climate</i> , 2012, 25, 7544-7563.	1.2	60
72	Expansion of the Hadley Cell under Global Warming: Winter versus Summer. <i>Journal of Climate</i> , 2012, 25, 8387-8393.	1.2	124

#	ARTICLE	IF	CITATIONS
73	Breaking down the tropospheric circulation response by forcing. <i>Climate Dynamics</i> , 2012, 39, 2361-2375.	1.7	69
74	Testing the Clausius-Clapeyron constraint on the aerosol-induced changes in mean and extreme precipitation. <i>Geophysical Research Letters</i> , 2011, 38, n/a-n/a.	1.5	22
75	Responses of East Asian summer monsoon to historical SST and atmospheric forcing during 1950–2000. <i>Climate Dynamics</i> , 2010, 34, 501-514.	1.7	353
76	The Position of the Midlatitude Storm Track and Eddy-Driven Westerlies in Aquaplanet AGCMs. <i>Journals of the Atmospheric Sciences</i> , 2010, 67, 3984-4000.	0.6	100
77	Sensitivities of zonal mean atmospheric circulation to SST warming in an aquaplanet model. <i>Geophysical Research Letters</i> , 2010, 37, .	1.5	54
78	Response of the Zonal Mean Atmospheric Circulation to El Niño versus Global Warming. <i>Journal of Climate</i> , 2008, 21, 5835-5851.	1.2	393
79	Phase Speed Spectra and the Latitude of Surface Westerlies: Interannual Variability and Global Warming Trend. <i>Journal of Climate</i> , 2008, 21, 5942-5959.	1.2	124
80	Model Projections of an Imminent Transition to a More Arid Climate in Southwestern North America. <i>Science</i> , 2007, 316, 1181-1184.	6.0	1,792
81	Expansion of the Hadley cell under global warming. <i>Geophysical Research Letters</i> , 2007, 34, .	1.5	652
82	Width of the Hadley cell in simple and comprehensive general circulation models. <i>Geophysical Research Letters</i> , 2007, 34, .	1.5	208
83	GFDL's CM2 Global Coupled Climate Models. Part I: Formulation and Simulation Characteristics. <i>Journal of Climate</i> , 2006, 19, 643-674.	1.2	1,431
84	Winter Northern Hemisphere surface air temperature variability associated with the Arctic Oscillation and North Atlantic Oscillation. <i>Geophysical Research Letters</i> , 2005, 32, .	1.5	76
85	Oceanic forcing of the late 20th century Sahel drought. <i>Geophysical Research Letters</i> , 2005, 32, n/a-n/a.	1.5	151