Zhiming Kuang

List of Publications by Year
in descending order

49 papers	3,084 citations	257450 24 h-index	214800 47 g-index
56 all docs	56 docs citations	56 times ranked	3245 citing authors

#	Article	IF	Citations
1	Dominant control of the South Asian monsoon by orographic insulation versus plateau heating. Nature, 2010, 463, 218-222.	27.8	749
2	Cloud ice: A climate model challenge with signs and expectations of progress. Journal of Geophysical Research, 2009, 114, .	3.3	313
3	A Mass-Flux Scheme View of a High-Resolution Simulation of a Transition from Shallow to Deep Cumulus Convection. Journals of the Atmospheric Sciences, 2006, 63, 1895-1909.	1.7	232
4	Moist Static Energy Budget of MJO-like Disturbances in the Atmosphere of a Zonally Symmetric Aquaplanet. Journal of Climate, 2012, 25, 2782-2804.	3.2	207
5	A Moisture-Stratiform Instability for Convectively Coupled Waves. Journals of the Atmospheric Sciences, 2008, 65, 834-854.	1.7	153
6	Do Undiluted Convective Plumes Exist in the Upper Tropical Troposphere?. Journals of the Atmospheric Sciences, 2010, 67, 468-484.	1.7	136
7	Mechanisms for convection triggering by cold pools. Geophysical Research Letters, 2015, 42, 1943-1950.	4.0	112
8	Observational Evaluation of a Convective Quasi-Equilibrium View of Monsoons. Journal of Climate, 2010, 23, 4416-4428.	3.2	106
9	Responses of midlatitude blocks and wave amplitude to changes in the meridional temperature gradient in an idealized dry GCM. Geophysical Research Letters, 2014, 41, 5223-5232.	4.0	105
10	Linear Response Functions of a Cumulus Ensemble to Temperature and Moisture Perturbations and Implications for the Dynamics of Convectively Coupled Waves. Journals of the Atmospheric Sciences, 2010, 67, 941-962.	1.7	84
11	Testing the Fixed Anvil Temperature Hypothesis in a Cloud-Resolving Model. Journal of Climate, 2007, 20, 2051-2057.	3.2	79
12	Isotopic composition of water in the tropical tropopause layer in cloudâ€resolving simulations of an idealized tropical circulation. Journal of Geophysical Research, 2010, 115, .	3.3	75
13	Blocking variability: Arctic Amplification versus Arctic Oscillation. Geophysical Research Letters, 2015, 42, 8586-8595.	4.0	59
14	A new approach for 3D cloud-resolving simulations of large-scale atmospheric circulation. Geophysical Research Letters, 2005, 32, .	4.0	54
15	Increasing potential for intense tropical and subtropical thunderstorms under global warming. Proceedings of the National Academy of Sciences of the United States of America, 2017, 114, 11657-11662.	7.1	51
16	Effects of Orography and Surface Heat Fluxes on the South Asian Summer Monsoon. Journal of Climate, 2014, 27, 6647-6659.	3.2	50
17	Cloudâ€resolving simulation of TOGAâ€COARE using parameterized largeâ€scale dynamics. Journal of Geophysical Research D: Atmospheres, 2013, 118, 6290-6301.	3.3	48
18	Responses of Shallow Cumulus Convection to Large-Scale Temperature and Moisture Perturbations: A Comparison of Large-Eddy Simulations and a Convective Parameterization Based on Stochastically Entraining Parcels. Journals of the Atmospheric Sciences, 2012, 69, 1936-1956.	1.7	38

#	ARTICLE	IF	CITATIONS
19	Weakly Forced Mock Walker Cells. Journals of the Atmospheric Sciences, 2012, 69, 2759-2786.	1.7	38
20	Rain evaporation and moist patches in tropical boundary layers. Geophysical Research Letters, 2016, 43, 9895-9902.	4.0	34
21	On Cold Pool Collisions in Tropical Boundary Layers. Geophysical Research Letters, 2019, 46, 399-407.	4.0	32
22	Modulation of radiative heating by the Madden-Julian Oscillation and convectively coupled Kelvin waves as observed by CloudSat. Geophysical Research Letters, 2011, 38, n/a-n/a.	4.0	30
23	Stable water isotopes and largeâ€scale vertical motions in the tropics. Journal of Geophysical Research D: Atmospheres, 2017, 122, 3703-3717.	3.3	28
24	Effects of explicit atmospheric convection at high CO ₂. Proceedings of the National Academy of Sciences of the United States of America, 2014, 111, 10943-10948.	7.1	24
25	A Toy Model of the Instability in the Equatorially Trapped Convectively Coupled Waves on the Equatorial Beta Plane. Journals of the Atmospheric Sciences, 2008, 65, 3736-3757.	1.7	23
26	The Linear Response Function of an Idealized Atmosphere. Part II: Implications for the Practical Use of the Fluctuationâ€"Dissipation Theorem and the Role of Operatorâ€™s Nonnormality. Journals of the Atmospheric Sciences, 2016, 73, 3441-3452.	1.7	22
27	Dependence of entrainment in shallow cumulus convection on vertical velocity and distance to cloud edge. Geophysical Research Letters, 2016, 43, 4056-4065.	4.0	22
28	A Lagrangian Study of Precipitation-Driven Downdrafts*. Journals of the Atmospheric Sciences, 2016, 73, 839-854.	1.7	21
29	Eddy Influences on the Strength of the Hadley Circulation: Dynamic and Thermodynamic Perspectives. Journals of the Atmospheric Sciences, 2017, 74, 467-486.	1.7	21
30	Evaluating Indices of Blocking Anticyclones in Terms of Their Linear Relations With Surface Hot Extremes. Geophysical Research Letters, 2019, 46, 4904-4912.	4.0	20
31	Linear response functions of two convective parameterization schemes. Journal of Advances in Modeling Earth Systems, 2013, 5, 510-541.	3.8	16
32	Importance Profiles for Water Vapor. Surveys in Geophysics, 2017, 38, 1355-1369.	4.6	14
33	Beyond bulk entrainment and detrainment rates: A new framework for diagnosing mixing in cumulus convection. Geophysical Research Letters, 2012, 39, .	4.0	12
34	On the Diurnal Cycle of GPS-Derived Precipitable Water Vapor over Sumatra. Journals of the Atmospheric Sciences, 2019, 76, 3529-3552.	1.7	12
35	Excitation of Intraseasonal Variability in the Equatorial Atmosphere by Yanai Wave Groups via WISHE-Induced Convection. Journals of the Atmospheric Sciences, 2011, 68, 210-225.	1.7	10
36	A Moist Entropy Budget View of the South Asian Summer Monsoon Onset. Geophysical Research Letters, 2019, 46, 4476-4484.	4.0	9

#	Article	IF	Citations
37	Why Does Deep Convection Have Different Sensitivities to Temperature Perturbations in the Lower versus Upper Troposphere?. Journals of the Atmospheric Sciences, 2019, 76, 27-41.	1.7	7
38	A Robust Increase of the Intraseasonal Periodic Behavior of the Precipitation and Eddy Kinetic Energy in a Warming Climate. Geophysical Research Letters, 2018, 45, 7790-7799.	4.0	6
39	The Vertical Momentum Budget of Shallow Cumulus Convection: Insights From a Lagrangian Perspective. Journal of Advances in Modeling Earth Systems, 2019, 11, 113-126.	3.8	6
40	Tangent linear superparameterization of convection in a 10 layer global atmosphere with calibrated climatology. Journal of Advances in Modeling Earth Systems, 2017, 9, 932-948.	3.8	5
41	Effects of Climate Model Meanâ€State Bias on Blocking Underestimation. Geophysical Research Letters, 2021, 48, e2021GL094129.	4.0	5
42	Estimating Convectionâ€™s Moisture Sensitivity: An Observationâ€"Model Synthesis Using AMIE-DYNAMO Field Data. Journals of the Atmospheric Sciences, 2019, 76, 1505-1520.	1.7	4
43	Influence of Upper-Troposphere Stratification and Cloud-Radiation Interaction on Convective Overshoots in the Tropical Tropopause Layer. Journals of the Atmospheric Sciences, 2021, , .	1.7	4
44	Representing effects of aqueous phase reactions in shallow cumuli in global models. Journal of Geophysical Research D: Atmospheres, 2016, 121, 5769-5787.	3.3	3
45	Moist Entropy and Water Isotopologues in a Zonal Overturning Circulation Framework of the Maddenâ€Julian Oscillation. Journal of Geophysical Research D: Atmospheres, 2019, 124, 1248-1265.	3.3	3
46	Spatial and Temporal Characteristics of Asymmetries in Tropical Cyclones. Geophysical Research Letters, 2019, 46, 7769-7779.	4.0	1
47	Twoâ€Point Mixing, Buoyancy Sorting, and Updraft Dilution in the RACORO Campaign. Geophysical Research Letters, 2020, 47, e2020GL090674.	4.0	0
48	Eddy Length Scale Response to Static Stability Change in an Idealized Dry Atmosphere: A Linear Response Function Approach*. Journals of the Atmospheric Sciences, 2021, , .	1.7	0
49	Dependence of Precipitation on Precipitable Water Vapor Over the Maritime Continent and Implications to the Maddenâ€Julian Oscillation. Geophysical Research Letters, 2021, 48, e2021GL094648.	4.0	0