

Zhiming Kuang

List of Publications by Year in descending order

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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	Influence of Upper-Troposphere Stratification and Cloud-Radiation Interaction on Convective Overshoots in the Tropical Tropopause Layer. <i>Journals of the Atmospheric Sciences</i> , 2021, , .	1.7	4
2	Eddy Length Scale Response to Static Stability Change in an Idealized Dry Atmosphere: A Linear Response Function Approach*. <i>Journals of the Atmospheric Sciences</i> , 2021, , .	1.7	0
3	Effects of Climate Model Mean-€State Bias on Blocking Underestimation. <i>Geophysical Research Letters</i> , 2021, 48, e2021GL094129.	4.0	5
4	Dependence of Precipitation on Precipitable Water Vapor Over the Maritime Continent and Implications to the Madden-€Julian Oscillation. <i>Geophysical Research Letters</i> , 2021, 48, e2021GL094648.	4.0	0
5	Two-€Point Mixing, Buoyancy Sorting, and Updraft Dilution in the RACORO Campaign. <i>Geophysical Research Letters</i> , 2020, 47, e2020GL090674.	4.0	0
6	Why Does Deep Convection Have Different Sensitivities to Temperature Perturbations in the Lower versus Upper Troposphere?. <i>Journals of the Atmospheric Sciences</i> , 2019, 76, 27-41.	1.7	7
7	On the Diurnal Cycle of GPS-Derived Precipitable Water Vapor over Sumatra. <i>Journals of the Atmospheric Sciences</i> , 2019, 76, 3529-3552.	1.7	12
8	Spatial and Temporal Characteristics of Asymmetries in Tropical Cyclones. <i>Geophysical Research Letters</i> , 2019, 46, 7769-7779.	4.0	1
9	Estimating Convection-€™s Moisture Sensitivity: An Observation-€Model Synthesis Using AMIE-DYNAMO Field Data. <i>Journals of the Atmospheric Sciences</i> , 2019, 76, 1505-1520.	1.7	4
10	The Vertical Momentum Budget of Shallow Cumulus Convection: Insights From a Lagrangian Perspective. <i>Journal of Advances in Modeling Earth Systems</i> , 2019, 11, 113-126.	3.8	6
11	Evaluating Indices of Blocking Anticyclones in Terms of Their Linear Relations With Surface Hot Extremes. <i>Geophysical Research Letters</i> , 2019, 46, 4904-4912.	4.0	20
12	A Moist Entropy Budget View of the South Asian Summer Monsoon Onset. <i>Geophysical Research Letters</i> , 2019, 46, 4476-4484.	4.0	9
13	Moist Entropy and Water Isotopologues in a Zonal Overturning Circulation Framework of the Madden-€Julian Oscillation. <i>Journal of Geophysical Research D: Atmospheres</i> , 2019, 124, 1248-1265.	3.3	3
14	On Cold Pool Collisions in Tropical Boundary Layers. <i>Geophysical Research Letters</i> , 2019, 46, 399-407.	4.0	32
15	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.	4.0	6
16	Eddy Influences on the Strength of the Hadley Circulation: Dynamic and Thermodynamic Perspectives. <i>Journals of the Atmospheric Sciences</i> , 2017, 74, 467-486.	1.7	21
17	Stable water isotopes and large-€scale vertical motions in the tropics. <i>Journal of Geophysical Research D: Atmospheres</i> , 2017, 122, 3703-3717.	3.3	28
18	Increasing potential for intense tropical and subtropical thunderstorms under global warming. <i>Proceedings of the National Academy of Sciences of the United States of America</i> , 2017, 114, 11657-11662.	7.1	51

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19	Importance Profiles for Water Vapor. <i>Surveys in Geophysics</i> , 2017, 38, 1355-1369.	4.6	14
20	Tangent linear superparameterization of convection in a 10 layer global atmosphere with calibrated climatology. <i>Journal of Advances in Modeling Earth Systems</i> , 2017, 9, 932-948.	3.8	5
21	The Linear Response Function of an Idealized Atmosphere. Part II: Implications for the Practical Use of the Fluctuation-Dissipation Theorem and the Role of Operator's Nonnormality. <i>Journals of the Atmospheric Sciences</i> , 2016, 73, 3441-3452.	1.7	22
22	Representing effects of aqueous phase reactions in shallow cumuli in global models. <i>Journal of Geophysical Research D: Atmospheres</i> , 2016, 121, 5769-5787.	3.3	3
23	Dependence of entrainment in shallow cumulus convection on vertical velocity and distance to cloud edge. <i>Geophysical Research Letters</i> , 2016, 43, 4056-4065.	4.0	22
24	Rain evaporation and moist patches in tropical boundary layers. <i>Geophysical Research Letters</i> , 2016, 43, 9895-9902.	4.0	34
25	A Lagrangian Study of Precipitation-Driven Downdrafts*. <i>Journals of the Atmospheric Sciences</i> , 2016, 73, 839-854.	1.7	21
26	Blocking variability: Arctic Amplification versus Arctic Oscillation. <i>Geophysical Research Letters</i> , 2015, 42, 8586-8595.	4.0	59
27	Mechanisms for convection triggering by cold pools. <i>Geophysical Research Letters</i> , 2015, 42, 1943-1950.	4.0	112
28	Effects of explicit atmospheric convection at high CO ₂ . <i>Proceedings of the National Academy of Sciences of the United States of America</i> , 2014, 111, 10943-10948.	7.1	24
29	Responses of midlatitude blocks and wave amplitude to changes in the meridional temperature gradient in an idealized dry GCM. <i>Geophysical Research Letters</i> , 2014, 41, 5223-5232.	4.0	105
30	Effects of Orography and Surface Heat Fluxes on the South Asian Summer Monsoon. <i>Journal of Climate</i> , 2014, 27, 6647-6659.	3.2	50
31	Linear response functions of two convective parameterization schemes. <i>Journal of Advances in Modeling Earth Systems</i> , 2013, 5, 510-541.	3.8	16
32	Cloud-resolving simulation of TOGA-COARE using parameterized large-scale dynamics. <i>Journal of Geophysical Research D: Atmospheres</i> , 2013, 118, 6290-6301.	3.3	48
33	Moist Static Energy Budget of MJO-like Disturbances in the Atmosphere of a Zonally Symmetric Aquaplanet. <i>Journal of Climate</i> , 2012, 25, 2782-2804.	3.2	207
34	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. <i>Journals of the Atmospheric Sciences</i> , 2012, 69, 1936-1956.	1.7	38
35	Weakly Forced Mock Walker Cells. <i>Journals of the Atmospheric Sciences</i> , 2012, 69, 2759-2786.	1.7	38
36	Beyond bulk entrainment and detrainment rates: A new framework for diagnosing mixing in cumulus convection. <i>Geophysical Research Letters</i> , 2012, 39, .	4.0	12

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37	Modulation of radiative heating by the Madden-Julian Oscillation and convectively coupled Kelvin waves as observed by CloudSat. <i>Geophysical Research Letters</i> , 2011, 38, n/a-n/a.	4.0	30
38	Excitation of Intraseasonal Variability in the Equatorial Atmosphere by Yanai Wave Groups via WISHE-Induced Convection. <i>Journals of the Atmospheric Sciences</i> , 2011, 68, 210-225.	1.7	10
39	Dominant control of the South Asian monsoon by orographic insulation versus plateau heating. <i>Nature</i> , 2010, 463, 218-222.	27.8	749
40	Linear Response Functions of a Cumulus Ensemble to Temperature and Moisture Perturbations and Implications for the Dynamics of Convectively Coupled Waves. <i>Journals of the Atmospheric Sciences</i> , 2010, 67, 941-962.	1.7	84
41	Observational Evaluation of a Convective Quasi-Equilibrium View of Monsoons. <i>Journal of Climate</i> , 2010, 23, 4416-4428.	3.2	106
42	Do Undiluted Convective Plumes Exist in the Upper Tropical Troposphere?. <i>Journals of the Atmospheric Sciences</i> , 2010, 67, 468-484.	1.7	136
43	Isotopic composition of water in the tropical tropopause layer in cloud-resolving simulations of an idealized tropical circulation. <i>Journal of Geophysical Research</i> , 2010, 115, .	3.3	75
44	Cloud ice: A climate model challenge with signs and expectations of progress. <i>Journal of Geophysical Research</i> , 2009, 114, .	3.3	313
45	A Moisture-Stratiform Instability for Convectively Coupled Waves. <i>Journals of the Atmospheric Sciences</i> , 2008, 65, 834-854.	1.7	153
46	A Toy Model of the Instability in the Equatorially Trapped Convectively Coupled Waves on the Equatorial Beta Plane. <i>Journals of the Atmospheric Sciences</i> , 2008, 65, 3736-3757.	1.7	23
47	Testing the Fixed Anvil Temperature Hypothesis in a Cloud-Resolving Model. <i>Journal of Climate</i> , 2007, 20, 2051-2057.	3.2	79
48	A Mass-Flux Scheme View of a High-Resolution Simulation of a Transition from Shallow to Deep Cumulus Convection. <i>Journals of the Atmospheric Sciences</i> , 2006, 63, 1895-1909.	1.7	232
49	A new approach for 3D cloud-resolving simulations of large-scale atmospheric circulation. <i>Geophysical Research Letters</i> , 2005, 32, .	4.0	54