

Heng Xiao

List of Publications by Year in descending order

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Version: 2024-02-01

33
papers

526
citations

623188

14
h-index

713013

21
g-index

38
all docs

38
docs citations

38
times ranked

1033
citing authors

#	ARTICLE	IF	CITATIONS
1	Overview of the HI-SCALE Field Campaign: A New Perspective on Shallow Convective Clouds. Bulletin of the American Meteorological Society, 2019, 100, 821-840.	1.7	44
2	The Large-Eddy Simulation (LES) Atmospheric Radiation Measurement (ARM) Symbiotic Simulation and Observation (LASSO) Activity for Continental Shallow Convection. Bulletin of the American Meteorological Society, 2020, 101, E462-E479.	1.7	41
3	A multiscale modeling framework model (superparameterized CAM5) with a higher-order turbulence closure: Model description and low-cloud simulations. Journal of Advances in Modeling Earth Systems, 2015, 7, 484-509.	1.3	39
4	Buoyancy reversal, decoupling and the transition from stratocumulus to shallow cumulus topped marine boundary layers. Climate Dynamics, 2011, 37, 971-984.	1.7	31
5	Simulation of low clouds in the Southeast Pacific by the NCEP GFS: sensitivity to vertical mixing. Atmospheric Chemistry and Physics, 2010, 10, 12261-12272.	1.9	28
6	Single-Column Model Simulations of Subtropical Marine Boundary Layer Cloud Transitions Under Weakening Inversions. Journal of Advances in Modeling Earth Systems, 2017, 9, 2385-2412.	1.3	27
7	On the estimation of boundary layer heights: a machine learning approach. Atmospheric Measurement Techniques, 2021, 14, 4403-4424.	1.2	26
8	Impact of land surface processes on the South American warm season climate. Climate Dynamics, 2011, 37, 187-203.	1.7	25
9	The Impact of Variable Land-Atmosphere Coupling on Convective Cloud Populations Observed During the 2016 HI-SCALE Field Campaign. Journal of Advances in Modeling Earth Systems, 2019, 11, 2629-2654.	1.3	22
10	A Stochastic Framework for Modeling the Population Dynamics of Convective Clouds. Journal of Advances in Modeling Earth Systems, 2018, 10, 448-465.	1.3	19
11	Role of Troposphere-Convective Land Coupling in the Southwestern Amazon Precipitation Bias of the Community Earth System Model Version 1 (CESM1). Journal of Geophysical Research D: Atmospheres, 2018, 123, 8374-8399.	1.2	19
12	The Impact of Surface Heterogeneities and Land-Atmosphere Interactions on Shallow Clouds Over ARM SGP Site. Journal of Advances in Modeling Earth Systems, 2018, 10, 1220-1244.	1.3	17
13	Seasonal Cycle-El Niño Relationship: Validation of Hypotheses. Journals of the Atmospheric Sciences, 2009, 66, 1633-1653.	0.6	15
14	Reconciling Differences Between Large-Eddy Simulations and Doppler Lidar Observations of Continental Shallow Cumulus Cloud Base Vertical Velocity. Geophysical Research Letters, 2019, 46, 11539-11547.	1.5	14
15	The Separate Physics and Dynamics Experiment (SPADE) framework for determining resolution awareness: A case study of microphysics. Journal of Geophysical Research D: Atmospheres, 2013, 118, 9258-9276.	1.2	13
16	Diagnosis of the marine low cloud simulation in the NCAR community earth system model (CESM) and the NCEP global forecast system (GFS)-modular ocean model v4 (MOM4) coupled model. Climate Dynamics, 2014, 43, 737-752.	1.7	11
17	Assessing the Resolution Adaptability of the Zhang-McFarlane Cumulus Parameterization With Spatial and Temporal Averaging. Journal of Advances in Modeling Earth Systems, 2017, 9, 2753-2770.	1.3	11
18	Sensitivity of Global Tropical Climate to Land Surface Processes: Mean State and Interannual Variability. Journal of Climate, 2013, 26, 1818-1837.	1.2	9

#	ARTICLE	IF	CITATIONS
19	On the Connection between Continental-Scale Land Surface Processes and the Tropical Climate in a Coupled Ocean–Atmosphere–Land System. <i>Journal of Climate</i> , 2013, 26, 9006-9025.	1.2	9
20	Transitions of cloud-topped marine boundary layers characterized by AIRS, MODIS, and a large eddy simulation model. <i>Journal of Geophysical Research D: Atmospheres</i> , 2013, 118, 8598-8611.	1.2	9
21	Impact of subgrid-scale radiative heating variability on the stratocumulus-to-trade cumulus transition in climate models. <i>Journal of Geophysical Research D: Atmospheres</i> , 2014, 119, 4192-4203.	1.2	9
22	Characterization of Surface Heterogeneity-Induced Convection Using Cluster Analysis. <i>Journal of Geophysical Research D: Atmospheres</i> , 2020, 125, e2020JD032550.	1.2	9
23	Modifications to WRF's dynamical core to improve the treatment of moisture for large-eddy simulations. <i>Journal of Advances in Modeling Earth Systems</i> , 2015, 7, 1627-1642.	1.3	8
24	Resolution-dependent behavior of subgrid-scale vertical transport in the Zhang-McFarlane convection parameterization. <i>Journal of Advances in Modeling Earth Systems</i> , 2015, 7, 537-550.	1.3	8
25	A treatment for the stratocumulus-to-cumulus transition in GCMs. <i>Climate Dynamics</i> , 2012, 39, 3075-3089.	1.7	7
26	Understanding irrigation impacts on low-level jets over the Great Plains. <i>Climate Dynamics</i> , 2020, 55, 925-943.	1.7	7
27	Correlative Evolutions of ENSO and the Seasonal Cycle in the Tropical Pacific Ocean. <i>Journals of the Atmospheric Sciences</i> , 2009, 66, 1041-1049.	0.6	5
28	Impact of resolution on simulation of closed mesoscale cellular convection identified by dynamically guided watershed segmentation. <i>Journal of Geophysical Research D: Atmospheres</i> , 2014, 119, 12,674.	1.2	4
29	Assessing CLUBB PDF Closure Assumptions for a Continental Shallow-to-Deep Convective Transition Case Over Multiple Spatial Scales. <i>Journal of Advances in Modeling Earth Systems</i> , 2020, 12, e2020MS002145.	1.3	3
30	Simulated Dust Transport in the Convective Boundary Layer. <i>Journal of Geophysical Research D: Atmospheres</i> , 2021, 126, e2020JD033429.	1.2	3
31	A Machine-Learning-Assisted Stochastic Cloud Population Model as a Parameterization of Cumulus Convection. <i>Journal of Advances in Modeling Earth Systems</i> , 2022, 14, .	1.3	3
32	Improving subtropical boundary layer cloudiness in the 2011 NCEP GFS. <i>Geoscientific Model Development</i> , 2014, 7, 2107-2120.	1.3	2
33	Determining Spatial Scales of Soil Moisture–Cloud Coupling Pathways Using Semi-Idealized Simulations. <i>Journal of Geophysical Research D: Atmospheres</i> , 2022, 127, e2021JD035282.	1.2	2