

# Hui Wan

## List of Publications by Year in descending order

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42  
papers

2,198  
citations

331259

21  
h-index

288905

40  
g-index

62  
all docs

62  
docs citations

62  
times ranked

3001  
citing authors

#	ARTICLE	IF	CITATIONS
1	The Global Atmosphereâ€aerosol Model ICONâ€aâ€HAM2.3â€Initial Model Evaluation and Effects of Radiation Balance Tuning on Aerosol Optical Thickness. Journal of Advances in Modeling Earth Systems, 2022, 14, .	1.3	6
2	Better calibration of cloud parameterizations and subgrid effects increases the fidelity of the E3SM Atmosphere Model version 1. Geoscientific Model Development, 2022, 15, 2881-2916.	1.3	17
3	CondiDiag1.0: a flexible online diagnostic tool for conditional sampling and budget analysis in the E3SM atmosphere model (EAM). Geoscientific Model Development, 2022, 15, 3205-3231.	1.3	4
4	Effective radiative forcing of anthropogenic aerosols in E3SM version 1: historical changes, causality, decomposition, and parameterization sensitivities. Atmospheric Chemistry and Physics, 2022, 22, 9129-9160.	1.9	16
5	Quantifying and attributing time step sensitivities in present-day climate simulations conducted with EAMv1. Geoscientific Model Development, 2021, 14, 1921-1948.	1.3	13
6	Improving Time Step Convergence in an Atmosphere Model With Simplified Physics: Using Mathematical Rigor to Avoid Nonphysical Behavior in a Parameterization. Journal of Advances in Modeling Earth Systems, 2020, 12, e2019MS001974.	1.3	3
7	Improving Time Step Convergence in an Atmosphere Model With Simplified Physics: The Impacts of Closure Assumption and Process Coupling. Journal of Advances in Modeling Earth Systems, 2020, 12, e2019MS001982.	1.3	5
8	Improving Solution Accuracy and Convergence for Stochastic Physics Parameterizations with Colored Noise. Monthly Weather Review, 2020, 148, 2251-2263.	0.5	1
9	The challenges of theory-software translation. F1000Research, 2020, 9, 1192.	0.8	4
10	An Overview of the Atmospheric Component of the Energy Exascale Earth System Model. Journal of Advances in Modeling Earth Systems, 2019, 11, 2377-2411.	1.3	168
11	Impact of light-absorbing particles on snow albedo darkening and associated radiative forcing over high-mountain Asia: high-resolution WRF-Chem modeling and new satellite observations. Atmospheric Chemistry and Physics, 2019, 19, 7105-7128.	1.9	46
12	The DOE E3SM Coupled Model Version 1: Overview and Evaluation at Standard Resolution. Journal of Advances in Modeling Earth Systems, 2019, 11, 2089-2129.	1.3	404
13	An Objective and Efficient Method for Assessing the Impact of Reducedâ€Precision Calculations On Solution Correctness. Journal of Advances in Modeling Earth Systems, 2019, 11, 3131-3147.	1.3	0
14	Impact of Nudging Strategy on the Climate Representativeness and Hindcast Skill of Constrained EAMv1 Simulations. Journal of Advances in Modeling Earth Systems, 2019, 11, 3911-3933.	1.3	37
15	Investigation of short-term effective radiative forcing of fire aerosols over North America using nudged hindcast ensembles. Atmospheric Chemistry and Physics, 2018, 18, 31-47.	1.9	13
16	Role of Troposphereâ€Convectionâ€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
17	Impact of numerical choices on water conservation in the E3SM Atmosphere Model version 1 (EAMv1). Geoscientific Model Development, 2018, 11, 1971-1988.	1.3	33
18	Parametric Sensitivity and Uncertainty Quantification in the Version 1 of E3SM Atmosphere Model Based on Short Perturbed Parameter Ensemble Simulations. Journal of Geophysical Research D: Atmospheres, 2018, 123, 13,046.	1.2	53

#	ARTICLE	IF	CITATIONS
19	Methodology for building granular testing in multicomponent scientific software. , 2018, , .		2
20	Physicsâ€“Dynamics Coupling in Weather, Climate, and Earth System Models: Challenges and Recent Progress. Monthly Weather Review, 2018, 146, 3505-3544.	0.5	52
21	ICONâ€“EA, the Atmosphere Component of the ICON Earth System Model: I. Model Description. Journal of Advances in Modeling Earth Systems, 2018, 10, 1613-1637.	1.3	123
22	A new and inexpensive non-bit-for-bit solution reproducibility test based on time stepâ€“convergence (TSC1.0). Geoscientific Model Development, 2017, 10, 537-552.	1.3	9
23	Quantifying the impact of sub-grid surface wind variability on sea salt and dust emissions in CAM5. Geoscientific Model Development, 2016, 9, 607-632.	1.3	19
24	Can nudging be used to quantify model sensitivities in precipitation and cloud forcing?. Journal of Advances in Modeling Earth Systems, 2016, 8, 1073-1091.	1.3	26
25	Resolutionâ€“dependent behavior of subgridâ€“scale vertical transport in the Zhangâ€“McFarlane convection parameterization. Journal of Advances in Modeling Earth Systems, 2015, 7, 537-550.	1.3	8
26	Shortâ€“term time step convergence in a climate model. Journal of Advances in Modeling Earth Systems, 2015, 7, 215-225.	1.3	37
27	Short ensembles: an efficient method for discerning climate-relevant sensitivities in atmospheric general circulation models. Geoscientific Model Development, 2014, 7, 1961-1977.	1.3	49
28	Technical Note: On the use of nudging for aerosolâ€“climate model intercomparison studies. Atmospheric Chemistry and Physics, 2014, 14, 8631-8645.	1.9	143
29	Numerical issues associated with compensating and competing processes in climate models: an example from ECHAM-HAM. Geoscientific Model Development, 2013, 6, 861-874.	1.3	29
30	The ICON-1.2 hydrostatic atmospheric dynamical core on triangular grids â€“ Part 1: Formulation and performance of the baseline version. Geoscientific Model Development, 2013, 6, 735-763.	1.3	84
31	The global aerosol-climate model ECHAM-HAM, version 2: sensitivity to improvements in process representations. Atmospheric Chemistry and Physics, 2012, 12, 8911-8949.	1.9	319
32	Radon activity in the lower troposphere and its impact on ionization rate: a global estimate using different radon emissions. Atmospheric Chemistry and Physics, 2011, 11, 7817-7838.	1.9	73
33	Tropospheric aerosol size distributions simulated by three online global aerosol models using the M7 microphysics module. Atmospheric Chemistry and Physics, 2010, 10, 6409-6434.	1.9	23
34	Icosahedral Shallow Water Model (ICOSWM): results of shallow water test cases and sensitivity to model parameters. Geoscientific Model Development, 2009, 2, 231-251.	1.3	30
35	Consistency problem with tracer advection in the Atmospheric Model GAMIL. Advances in Atmospheric Sciences, 2008, 25, 306-318.	1.9	15
36	Coupled model simulations of climate changes in the 20th century and beyond. Advances in Atmospheric Sciences, 2008, 25, 641-654.	1.9	41

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37	Evaluation of the atmospheric transport in a GCM using radon measurements: sensitivity to cumulus convection parameterization. <i>Atmospheric Chemistry and Physics</i> , 2008, 8, 2811-2832.	1.9	59
38	Ensemble Held-Suarez Test with a Spectral Transform Model: Variability, Sensitivity, and Convergence. <i>Monthly Weather Review</i> , 2008, 136, 1075-1092.	0.5	27
39	Comparison between GAMIL, and CAM2 on interannual variability simulation. <i>Advances in Atmospheric Sciences</i> , 2007, 24, 82-88.	1.9	5
40	Improvements in climate simulation with modifications to the Tiedtke convective parameterization in the grid-point atmospheric model of IAP LASG (GAMIL). <i>Advances in Atmospheric Sciences</i> , 2007, 24, 323-335.	1.9	42
41	Performance of a reconfigured atmospheric general circulation model at low resolution. <i>Advances in Atmospheric Sciences</i> , 2007, 24, 712-728.	1.9	11
42	Design of a new dynamical core for global atmospheric models based on some efficient numerical methods. <i>Science in China Series A: Mathematics</i> , 2004, 47, 4.	0.5	102