P M Caldwell

List of Publications by Year
in descending order

53	4,774	147801 31	182427 51
papers	citations	h-index	g-index

58	58	58	5710
all docs	docs citations	times ranked	citing authors

#	Article	IF	Citations
1	Causes of Higher Climate Sensitivity in CMIP6 Models. Geophysical Research Letters, 2020, 47, e2019GL085782.	4.0	759
2	Taking climate model evaluation to the next level. Nature Climate Change, 2019, 9, 102-110.	18.8	407
3	The DOE E3SM Coupled Model Version 1: Overview and Evaluation at Standard Resolution. Journal of Advances in Modeling Earth Systems, 2019, 11, 2089-2129.	3.8	404
4	A Representative Democracy to Reduce Interdependency in a Multimodel Ensemble. Journal of Climate, 2015, 28, 5171-5194.	3.2	272
5	Evaluation of a WRF dynamical downscaling simulation over California. Climatic Change, 2009, 95, 499-521.	3.6	224
6	Global Climate Impacts of Fixing the Southern Ocean Shortwave Radiation Bias in the Community Earth System Model (CESM). Journal of Climate, 2016, 29, 4617-4636.	3.2	224
7	Advanced Two-Moment Bulk Microphysics for Global Models. Part II: Global Model Solutions and Aerosolâ€“Cloud Interactions*. Journal of Climate, 2015, 28, 1288-1307.	3.2	177
8	An Overview of the Atmospheric Component of the Energy Exascale Earth System Model. Journal of Advances in Modeling Earth Systems, 2019, 11, 2377-2411.	3.8	168
9	On the spread of changes in marine low cloud cover in climate model simulations of the 21st century. Climate Dynamics, 2014, 42, 2603-2626.	3.8	151
10	Separating signal and noise in atmospheric temperature changes: The importance of timescale. Journal of Geophysical Research, 2011, 116, n/a-n/a.	3.3	149
11	Addressing Interdependency in a Multimodel Ensemble by Interpolation of Model Properties. Journal of Climate, 2015, 28, 5150-5170.	3.2	127
12	Identifying human influences on atmospheric temperature. Proceedings of the National Academy of Sciences of the United States of America, 2013, 110, 26-33.	7.1	117
13	Human-induced global ocean warming onÂmultidecadal timescales. Nature Climate Change, 2012, 2, 524-529.	18.8	116
14	The DOE E3SM Coupled Model Version 1: Description and Results at High Resolution. Journal of Advances in Modeling Earth Systems, 2019, 11, 4095-4146.	3.8	112
15	Statistical significance of climate sensitivity predictors obtained by data mining. Geophysical Research Letters, 2014, 41, 1803-1808.	4.0	109
16	Understanding Cloud and Convective Characteristics in Version 1 of the E3SM Atmosphere Model. Journal of Advances in Modeling Earth Systems, 2018, 10, 2618-2644.	3.8	105
17	Mixed-Layer Budget Analysis of the Diurnal Cycle of Entrainment in Southeast Pacific Stratocumulus. Journals of the Atmospheric Sciences, 2005, 62, 3775-3791.	1.7	103
18	Quantifying the Sources of Intermodel Spread in Equilibrium Climate Sensitivity. Journal of Climate, 2016, 29, 513-524.	3.2	98

#	Article	IF	Citations
19	Evaluating Emergent Constraints on Equilibrium Climate Sensitivity. Journal of Climate, 2018, 31, 3921-3942.	3.2	74
20	Observational constraints on low cloud feedback reduce uncertainty of climate sensitivity. Nature Climate Change, 2021, 11, 501-507.	18.8	74
21	The Sensitivity of Springtime Arctic Mixed-Phase Stratocumulus Clouds to Surface-Layer and Cloud-Top Inversion-Layer Moisture Sources. Journals of the Atmospheric Sciences, 2014, 71, 574-595.	1.7	72
22	CMIP3 Subtropical Stratocumulus Cloud Feedback Interpreted through a Mixed-Layer Model. Journal of Climate, 2013, 26, 1607-1625.	3.2	60
23	The strength of the tropical inversion and its response to climate change in 18 CMIP5 models. Climate Dynamics, 2015, 45, 375-396.	3.8	60
24	Physicsâ€“Dynamics Coupling in Weather, Climate, and Earth System Models: Challenges and Recent Progress. Monthly Weather Review, 2018, 146, 3505-3544.	1.4	52
25	Response of a Subtropical Stratocumulus-Capped Mixed Layer to Climate and Aerosol Changes. Journal of Climate, 2009, 22, 20-38.	3.2	50
26	Regionally refined test bed in E3SM atmosphere model version 1 (EAMv1) and applications for high-resolution modeling. Geoscientific Model Development, 2019, 12, 2679-2706.	3.6	49
27	California Wintertime Precipitation Bias in Regional and Global Climate Models. Journal of Applied Meteorology and Climatology, 2010, 49, 2147-2158.	1.5	41
28	Near-surface meteorology during the Arctic Summer Cloud Ocean Study (ASCOS): evaluation of reanalyses and global climate models. Atmospheric Chemistry and Physics, 2014, 14, 427-445.	4.9	41
29	Large Eddy Simulation of the Diurnal Cycle in Southeast Pacific Stratocumulus. Journals of the Atmospheric Sciences, 2009, 66, 432-449.	1.7	39
30	External Influences on Modeled and Observed Cloud Trends. Journal of Climate, 2015, 28, 4820-4840.	3.2	37
31	The Single Column Atmosphere Model Version 6 (SCAM6): Not a Scam but a Tool for Model Evaluation and Development. Journal of Advances in Modeling Earth Systems, 2019, 11, 1381-1401.	3.8	36
32	Impact of numerical choices on water conservation in the E3SM Atmosphere Model version 1 (EAMv1). Geoscientific Model Development, 2018, 11, 1971-1988.	3.6	33
33	The atmospheric hydrologic cycle in the ACME v0.3 model. Climate Dynamics, 2018, 50, 3251-3279.	3.8	31
34	Impact of Physics Parameterization Ordering in a Global Atmosphere Model. Journal of Advances in Modeling Earth Systems, 2018, 10, 481-499.	3.8	27
35	Convectionâ€Permitting Simulations With the E3SM Global Atmosphere Model. Journal of Advances in Modeling Earth Systems, 2021, 13, e2021MS002544.	3.8	23
36	Characterizing Tropical Cyclones in the Energy Exascale Earth System Model Version 1. Journal of Advances in Modeling Earth Systems, 2020, 12, e2019MS002024.	3.8	20

#	Article	IF	Citations
37	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.	3.6	17
38	Combining Emergent Constraints for Climate Sensitivity. Journal of Climate, 2020, 33, 7413-7430.	3.2	16
39	A cloudy planetary boundary layer oscillation arising from the coupling of turbulence with precipitation in climate simulations. Journal of Advances in Modeling Earth Systems, 2017, 9, 1973-1993.	3.8	12
40	The E3SM version 1 single-column model. Geoscientific Model Development, 2020, 13, 4443-4458.	3.6	11
41	Preliminary Study of California Wintertime Model Wet Bias. Monthly Weather Review, 2010, 138, 3556-3571.	1.4	10
42	Aerosol specification in single-column Community Atmosphere Model version 5. Geoscientific Model Development, 2015, 8, 817-828.	3.6	9
43	Performance and Accuracy Implications of Parallel Split PhysicsâEDynamics Coupling in the Energy Exascale Earth System Atmosphere Model. Journal of Advances in Modeling Earth Systems, 2020, 12, e2020MS002080.	3.8	8
44	Northern Hemisphere Blocking in â^¼25â€kmâ€Resolution E3SM v0.3 AtmosphereâŁand Simulations. Journal of Geophysical Research D: Atmospheres, 2019, 124, 2465-2482.	3.3	7
45	Numerically Relevant Timescales in the MG2 Microphysics Model. Journal of Advances in Modeling Earth Systems, 2020, 12, e2019MS001972.	3.8	6
46	Cloud Process Coupling and Time Integration in the E3SM Atmosphere Model. Journal of Advances in Modeling Earth Systems, 2021, 13, e2020MS002359.	3.8	6
47	Dissecting Anvil Cloud Response to Sea Surface Warming. Geophysical Research Letters, 2021, 48, e2021GL094049.	4.0	6
48	Assessment of Precipitating Marine Stratocumulus Clouds in the E3SMv1 Atmosphere Model: A Case Study from the ARM MAGIC Field Campaign. Monthly Weather Review, 2020, 148, 3341-3359.	1.4	6
49	Underestimated marine stratocumulus cloud feedback associated with overly active deep convection in models. Environmental Research Letters, 2021, 16, 074015.	5.2	5
50	An Assessment of Nonhydrostatic and Hydrostatic Dynamical Cores at Seasonal Time Scales in the Energy Exascale Earth System Model (E3SM). Journal of Advances in Modeling Earth Systems, 2022, 14, .	3.8	4
51	Progress in Fast, Accurate Multi-scale Climate Simulations. Procedia Computer Science, 2015, 51, 2006-2015.	2.0	2
52	On the spread of changes in marine low cloud cover in climate model simulations of the 21st century. , 2014, 42, 2603.		1
53	Lower Tropospheric Processes: A Control on the Global Mean Precipitation Rate. Geophysical Research Letters, 2021, 48, e2020GL091169.	4.0	0