

Catherine A Senior

List of Publications by Year in descending order

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Version: 2024-02-01

60
papers

17,425
citations

76326

40
h-index

128289

60
g-index

60
all docs

60
docs citations

60
times ranked

14225
citing authors

#	ARTICLE	IF	CITATIONS
1	Challenges and outlook for convection-permitting climate modelling. <i>Philosophical Transactions Series A, Mathematical, Physical, and Engineering Sciences</i> , 2021, 379, 20190547.	3.4	67
2	Convection-Permitting Regional Climate Change Simulations for Understanding Future Climate and Informing Decision-Making in Africa. <i>Bulletin of the American Meteorological Society</i> , 2021, 102, E1206-E1223.	3.3	26
3	U.K. Community Earth System Modeling for CMIP6. <i>Journal of Advances in Modeling Earth Systems</i> , 2020, 12, e2019MS002004.	3.8	18
4	Context for interpreting equilibrium climate sensitivity and transient climate response from the CMIP6 Earth system models. <i>Science Advances</i> , 2020, 6, eaba1981.	10.3	321
5	Greater Future U.K. Winter Precipitation Increase in New Convection-Permitting Scenarios. <i>Journal of Climate</i> , 2020, 33, 7303-7318.	3.2	22
6	The Impact of Prescribed Ozone in Climate Projections Run With HadGEM3-ES. <i>Journal of Advances in Modeling Earth Systems</i> , 2019, 11, 3443-3453.	3.8	20
7	Enhanced future changes in wet and dry extremes over Africa at convection-permitting scale. <i>Nature Communications</i> , 2019, 10, 1794.	12.8	165
8	Implications of Improved Representation of Convection for the East Africa Water Budget Using a Convection-Permitting Model. <i>Journal of Climate</i> , 2019, 32, 2109-2129.	3.2	47
9	Regional Differences in the Response of Rainfall to Convectively Coupled Kelvin Waves over Tropical Africa. <i>Journal of Climate</i> , 2019, 32, 8143-8165.	3.2	10
10	Forcings, Feedbacks, and Climate Sensitivity in HadGEM3-ES and UKESM1. <i>Journal of Advances in Modeling Earth Systems</i> , 2019, 11, 4377-4394.	3.8	74
11	A Pan-African Convection-Permitting Regional Climate Simulation with the Met Office Unified Model: CP4-Africa. <i>Journal of Climate</i> , 2018, 31, 3485-3508.	3.2	102
12	Evaluating Climate Models with an African Lens. <i>Bulletin of the American Meteorological Society</i> , 2018, 99, 313-336.	3.3	71
13	The Benefits of Global High Resolution for Climate Simulation: Process Understanding and the Enabling of Stakeholder Decisions at the Regional Scale. <i>Bulletin of the American Meteorological Society</i> , 2018, 99, 2341-2359.	3.3	107
14	Storylines: an alternative approach to representing uncertainty in physical aspects of climate change. <i>Climatic Change</i> , 2018, 151, 555-571.	3.6	317
15	The interaction between moist diabatic processes and the atmospheric circulation in African Easterly Wave propagation. <i>Quarterly Journal of the Royal Meteorological Society</i> , 2017, 143, 3207-3227.	2.7	21
16	CMIP5 Scientific Gaps and Recommendations for CMIP6. <i>Bulletin of the American Meteorological Society</i> , 2017, 98, 95-105.	3.3	207
17	Overview of the Coupled Model Intercomparison Project Phase 6 (CMIP6) experimental design and organization. <i>Geoscientific Model Development</i> , 2016, 9, 1937-1958.	3.6	5,303
18	High Resolution Model Intercomparison Project (HighResMIP v1.0) for CMIP6. <i>Geoscientific Model Development</i> , 2016, 9, 4185-4208.	3.6	643

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19	Idealized climate change simulations with a high-resolution physical model: HadGEM3-CC2. <i>Journal of Advances in Modeling Earth Systems</i> , 2016, 8, 813-830.	3.8	30
20	Can climate projection uncertainty be constrained over Africa using metrics of contemporary performance?. <i>Climatic Change</i> , 2016, 134, 621-633.	3.6	54
21	Heavier summer downpours with climate change revealed by weather forecast resolution model. <i>Nature Climate Change</i> , 2014, 4, 570-576.	18.8	561
22	Towards the development of a robust model hierarchy: investigation of dynamical limitations at low resolution and possible solutions. <i>Quarterly Journal of the Royal Meteorological Society</i> , 2013, 139, 75-84.	2.7	7
23	The Transpose-AMIP II Experiment and Its Application to the Understanding of Southern Ocean Cloud Biases in Climate Models. <i>Journal of Climate</i> , 2013, 26, 3258-3274.	3.2	168
24	Realism of Rainfall in a Very High-Resolution Regional Climate Model. <i>Journal of Climate</i> , 2012, 25, 5791-5806.	3.2	364
25	Evaluating the East Asian monsoon simulation in climate models. <i>Journal of Geophysical Research</i> , 2011, 116, .	3.3	37
26	The HadGEM2 family of Met Office Unified Model climate configurations. <i>Geoscientific Model Development</i> , 2011, 4, 723-757.	3.6	765
27	Development and evaluation of an Earth-System model – HadGEM2. <i>Geoscientific Model Development</i> , 2011, 4, 1051-1075.	3.6	1,141
28	Analysis and Reduction of Systematic Errors through a Seamless Approach to Modeling Weather and Climate. <i>Journal of Climate</i> , 2010, 23, 5933-5957.	3.2	156
29	The Met Office Hadley Centre climate modelling capability: the competing requirements for improved resolution, complexity and dealing with uncertainty. <i>Philosophical Transactions Series A, Mathematical, Physical, and Engineering Sciences</i> , 2007, 365, 2635-2657.	3.4	27
30	The New Hadley Centre Climate Model (HadGEM1): Evaluation of Coupled Simulations. <i>Journal of Climate</i> , 2006, 19, 1327-1353.	3.2	424
31	Global mean cloud feedbacks in idealized climate change experiments. <i>Geophysical Research Letters</i> , 2006, 33, .	4.0	58
32	Evaluation of a component of the cloud response to climate change in an intercomparison of climate models. <i>Climate Dynamics</i> , 2006, 26, 145-165.	3.8	47
33	On the contribution of local feedback mechanisms to the range of climate sensitivity in two GCM ensembles. <i>Climate Dynamics</i> , 2006, 27, 17-38.	3.8	334
34	Tropical storms: representation and diagnosis in climate models and the impacts of climate change. <i>Climate Dynamics</i> , 2005, 25, 19-36.	3.8	109
35	Towards evaluating cloud response to climate change using clustering technique identification of cloud regimes. <i>Climate Dynamics</i> , 2005, 24, 701-719.	3.8	12
36	On dynamic and thermodynamic components of cloud changes. <i>Climate Dynamics</i> , 2004, 22, 71-86.	3.8	373

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37	Evaluating the cloud response to climate change and current climate variability. <i>Climate Dynamics</i> , 2003, 20, 705-721.	3.8	59
38	How linear is the Arctic Oscillation response to greenhouse gases?. <i>Journal of Geophysical Research</i> , 2002, 107, ACL 1-1.	3.3	78
39	Predictions of extreme precipitation and sea-level rise under climate change. <i>Philosophical Transactions Series A, Mathematical, Physical, and Engineering Sciences</i> , 2002, 360, 1301-1311.	3.4	35
40	An investigation into the mechanisms of changes in mid-latitude mean sea level pressure as greenhouse gases are increased. <i>Climate Dynamics</i> , 2002, 18, 533-543.	3.8	7
41	Transient Climate Change in the Hadley Centre Models: The Role of Physical Processes. <i>Journal of Climate</i> , 2001, 14, 2659-2674.	3.2	88
42	The impact of dynamic sea-ice on the climatology and climate sensitivity of a GCM: a study of past, present, and future climates. <i>Climate Dynamics</i> , 2001, 17, 655-668.	3.8	39
43	The response of the climate system to the indirect effects of anthropogenic sulfate aerosol. <i>Climate Dynamics</i> , 2001, 17, 845-856.	3.8	109
44	Combining ERBE and ISCCP data to assess clouds in the Hadley Centre, ECMWF and LMD atmospheric climate models. <i>Climate Dynamics</i> , 2001, 17, 905-922.	3.8	354
45	The simulation of SST, sea ice extents and ocean heat transports in a version of the Hadley Centre coupled model without flux adjustments. <i>Climate Dynamics</i> , 2000, 16, 147-168.	3.8	2,328
46	The time-dependence of climate sensitivity. <i>Geophysical Research Letters</i> , 2000, 27, 2685-2688.	4.0	224
47	Comparison of Mechanisms of Cloud-Climate Feedbacks in GCMs. <i>Journal of Climate</i> , 1999, 12, 1480-1489.	3.2	24
48	Changes in mid-latitude variability due to increasing greenhouse gases and sulphate aerosols. <i>Climate Dynamics</i> , 1998, 14, 369-383.	3.8	91
49	The second Hadley Centre coupled ocean-atmosphere GCM: model description, spinup and validation. <i>Climate Dynamics</i> , 1997, 13, 103-134.	3.8	668
50	An assessment of measures of storminess: Simulated changes in northern hemisphere winter due to increasing CO ₂ . <i>Climate Dynamics</i> , 1996, 12, 467-474.	3.8	6
51	The Dependence of Climate Sensitivity on the Horizontal Resolution of a GCM. <i>Journal of Climate</i> , 1995, 8, 2860-2880.	3.2	29
52	On Surface Temperature, Greenhouse Gases, and Aerosols: Models and Observations. <i>Journal of Climate</i> , 1995, 8, 2364-2386.	3.2	147
53	Storm tracks in a high-resolution GCM with doubled carbon dioxide. <i>Quarterly Journal of the Royal Meteorological Society</i> , 1994, 120, 1209-1230.	2.7	8
54	Tropical disturbances in a GCM. <i>Climate Dynamics</i> , 1993, 8, 247-257.	3.8	130

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55	Validation of GCM control simulations using indices of daily airflow types over the British Isles. <i>Climate Dynamics</i> , 1993, 9, 95-105.	3.8	57
56	Carbon Dioxide and Climate. The Impact of Cloud Parameterization. <i>Journal of Climate</i> , 1993, 6, 393-418.	3.2	287
57	The response of Antarctic climate in general circulation model experiments with transiently increasing carbon dioxide concentrations. <i>Philosophical Transactions of the Royal Society B: Biological Sciences</i> , 1992, 338, 209-218.	4.0	2
58	Environmental effects from burning oil wells in Kuwait. <i>Nature</i> , 1991, 351, 363-367.	27.8	70
59	The antarctic winter; simulations with climatological and reduced sea-ice extents. <i>Quarterly Journal of the Royal Meteorological Society</i> , 1989, 115, 225-246.	2.7	40
60	CO2 and climate: a missing feedback?. <i>Nature</i> , 1989, 341, 132-134.	27.8	337