Mark D Zelinka

List of Publications by Year
in descending order

73 papers	7,314 citations	71102 41 h-index	85541 71 g-index
90 all docs	90 docs citations	90 times ranked	6050 citing authors

#	Article	IF	Citations
1	Evaluating Climate Modelsâ€™ Cloud Feedbacks Against Expert Judgment. Journal of Geophysical Research D: Atmospheres, 2022, 127, e2021JD035198.	3.3	24
2	On the Correspondence Between Atmosphereâ€Only and Coupled Simulations for Radiative Feedbacks and Forcing From CO₂. Journal of Geophysical Research D: Atmospheres, 2022, 127, .	3.3	10
3	Earlier emergence of a temperature response to mitigation by filtering annual variability. Nature Communications, 2022, 13, 1578.	12.8	4
4	Extratropical Shortwave Cloud Feedbacks in the Context of the Global Circulation and Hydrological Cycle. Geophysical Research Letters, 2022, 49, .	4.0	8
5	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
6	Climate simulations: recognize the â€˜hot modelâ€™ problem. Nature, 2022, 605, 26-29.	27.8	141
7	A multi-year short-range hindcast experiment with CESM1 for evaluating climate model moist processes from diurnal to interannual timescales. Geoscientific Model Development, 2021, 14, 73-90.	3.6	9
8	Ten new insights in climate science 2020 â€“ a horizon scan. Global Sustainability, 2021, 4, .	3.3	17
9	Greater committed warming after accounting for the pattern effect. Nature Climate Change, 2021, 11, 132-136.	18.8	35
10	Natural variability contributes to modelâ€“satellite differences in tropical tropospheric warming. Proceedings of the National Academy of Sciences of the United States of America, 2021, 118, .	7.1	27
11	Assessing Prior Emergent Constraints on Surface Albedo Feedback in CMIP6. Journal of Climate, 2021, 34, 3889-3905.	3.2	11
12	Observational constraints on low cloud feedback reduce uncertainty of climate sensitivity. Nature Climate Change, 2021, 11, 501-507.	18.8	74
13	An underestimated negative cloud feedback from cloud lifetime changes. Nature Climate Change, 2021, 11, 508-513.	18.8	51
14	Contributions to Polar Amplification in CMIP5 and CMIP6 Models. Frontiers in Earth Science, 2021, 9, .	1.8	55
15	Responses of the Hadley Circulation to Regional Sea Surface Temperature Changes. Journal of Climate, 2020, 33, 429-441.	3.2	24
16	Causes of Higher Climate Sensitivity in CMIP6 Models. Geophysical Research Letters, 2020, 47, e2019GL085782.	4.0	759
17	An Assessment of Earth's Climate Sensitivity Using Multiple Lines of Evidence. Reviews of Geophysics, 2020, 58, e2019RG000678.	23.0	498
18	A Regime-Oriented Approach to Observationally Constraining Extratropical Shortwave Cloud Feedbacks. Journal of Climate, 2020, 33, 9967-9983.	3.2	12

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19	Intermodel Spread in the Pattern Effect and Its Contribution to Climate Sensitivity in CMIP5 and CMIP6 Models. Journal of Climate, 2020, 33, 7755-7775.	3.2	77
20	Observed Sensitivity of Low-Cloud Radiative Effects to Meteorological Perturbations over the Global Oceans. Journal of Climate, 2020, 33, 7717-7734.	3.2	41
21	Distinct Patterns of Cloud Changes Associated with Decadal Variability and Their Contribution to Observed Cloud Cover Trends. Journal of Climate, 2019, 32, 7281-7301.	3.2	3
22	Climatology Explains Intermodel Spread in Tropical Upper Tropospheric Cloud and Relative Humidity Response to Greenhouse Warming. Geophysical Research Letters, 2019, 46, 13399-13409.	4.0	15
23	Cloud feedbacks in extratropical cyclones: insight from long-term satellite data and high-resolution global simulations. Atmospheric Chemistry and Physics, 2019, 19, 1147-1172.	4.9	12
24	Evaluating Cloud Feedbacks and Rapid Responses in the ACCESS Model. Journal of Geophysical Research D: Atmospheres, 2019, 124, 350-366.	3.3	1
25	Evaluation of Clouds in Version 1 of the E3SM Atmosphere Model With Satellite Simulators. Journal of Advances in Modeling Earth Systems, 2019, 11, 1253-1268.	3.8	55
26	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
27	Celebrating the anniversary of three key events in climate change science. Nature Climate Change, 2019, 9, 180-182.	18.8	34
28	Mechanisms Behind the Extratropical Stratiform Lowâ€Cloud Optical Depth Response to Temperature in ARM Site Observations. Journal of Geophysical Research D: Atmospheres, 2019, 124, 2127-2147.	3.3	16
29	Quantifying stochastic uncertainty in detection time of human-caused climate signals. Proceedings of the National Academy of Sciences of the United States of America, 2019, 116, 19821-19827.	7.1	32
30	Evaluating Emergent Constraints on Equilibrium Climate Sensitivity. Journal of Climate, 2018, 31, 3921-3942.	3.2	74
31	Sources of Intermodel Spread in the Lapse Rate and Water Vapor Feedbacks. Journal of Climate, 2018, 31, 3187-3206.	3.2	35
32	On the Emergent Constraints of Climate Sensitivity. Journal of Climate, 2018, 31, 863-875.	3.2	11
33	Mixed-Phase Cloud Feedbacks. , 2018, , 215-236.		7
34	The Climatic Impact of Thermodynamic Phase Partitioning in Mixed-Phase Clouds. , 2018, , 237-264.		1
35	Drivers of the Low-Cloud Response to Poleward Jet Shifts in the North Pacific in Observations and Models. Journal of Climate, 2018, 31, 7925-7947.	3.2	20
36	Human influence on the seasonal cycle of tropospheric temperature. Science, 2018, 361, .	12.6	103

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37	Cloud feedback mechanisms and their representation in global climate models. Wiley Interdisciplinary Reviews: Climate Change, 2017, 8, e465.	8.1	154
38	Competing Influences of Anthropogenic Warming, ENSO, and Plant Physiology on Future Terrestrial Aridity. Journal of Climate, 2017, 30, 6883-6904.	3.2	20
39	Clearing clouds of uncertainty. Nature Climate Change, 2017, 7, 674-678.	18.8	87
40	Analyzing the dependence of global cloud feedback on the spatial pattern of sea surface temperature change with a <scp>G</scp>reen's function approach. Journal of Advances in Modeling Earth Systems, 2017, 9, 2174-2189.	3.8	103
41	The Cloud Feedback Model Intercomparison Project (CFMIP) Diagnostic Codes Catalogue â€“ metrics, diagnostics and methodologies to evaluate, understand and improve the representation of clouds and cloud feedbacks in climate models. Geoscientific Model Development, 2017, 10, 4285-4305.	3.6	16
42	Evidence for climate change in the satellite cloud record. Nature, 2016, 536, 72-75.	27.8	264
43	Positive low cloud and dust feedbacks amplify tropical North Atlantic Multidecadal Oscillation. Geophysical Research Letters, 2016, 43, 1349-1356.	4.0	99
44	Observational constraints on mixed-phase clouds imply higher climate sensitivity. Science, 2016, 352, 224-227.	12.6	331
45	Insights from a refined decomposition of cloud feedbacks. Geophysical Research Letters, 2016, 43, 9259-9269.	4.0	134
46	Constraining the lowâ€cloud optical depth feedback at middle and high latitudes using satellite observations. Journal of Geophysical Research D: Atmospheres, 2016, 121, 9696-9716.	3.3	57
47	Impact of decadal cloud variations on the Earthâ€™s energy budget. Nature Geoscience, 2016, 9, 871-874.	12.9	220
48	On the relationships among cloud cover, mixedâ€phase partitioning, and planetary albedo in GCMs. Journal of Advances in Modeling Earth Systems, 2016, 8, 650-668.	3.8	120
49	Volcanic effects on climate. Nature Climate Change, 2016, 6, 3-4.	18.8	14
50	Quantifying the Sources of Intermodel Spread in Equilibrium Climate Sensitivity. Journal of Climate, 2016, 29, 513-524.	3.2	98
51	The relationship between interannual and longâ€term cloud feedbacks. Geophysical Research Letters, 2015, 42, 10,463.	4.0	73
52	Mixedâ€phase cloud physics and Southern Ocean cloud feedback in climate models. Journal of Geophysical Research D: Atmospheres, 2015, 120, 9539-9554.	3.3	120
53	An observational radiative constraint on hydrologic cycle intensification. Nature, 2015, 528, 249-253.	27.8	119
54	Observed multivariable signals of late 20th and early 21st century volcanic activity. Geophysical Research Letters, 2015, 42, 500-509.	4.0	50

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55	External Influences on Modeled and Observed Cloud Trends. Journal of Climate, 2015, 28, 4820-4840.	3.2	37
56	Volcanic contribution to decadal changes in tropospheric temperature. Nature Geoscience, 2014, 7, 185-189.	12.9	364
57	Quantifying components of aerosol-cloud-radiation interactions in climate models. Journal of Geophysical Research D: Atmospheres, 2014, 119, 7599-7615.	3.3	138
58	Statistical significance of climate sensitivity predictors obtained by data mining. Geophysical Research Letters, 2014, 41, 1803-1808.	4.0	109
59	The response of the Southern Hemispheric eddy-driven jet to future changes in shortwave radiation in CMIP5. Geophysical Research Letters, 2014, 41, 3244-3250.	4.0	98
60	Cirrus feedback on interannual climate fluctuations. Geophysical Research Letters, 2014, 41, 9166-9173.	4.0	47
61	Diagnosing the average spatio-temporal impact of convective systems â€" Part 2: A model intercomparison using satellite data. Atmospheric Chemistry and Physics, 2014, 14, 8701-8721.	4.9	3
62	The ozone hole indirect effect: Cloudâ€radiative anomalies accompanying the poleward shift of the eddyâ€driven jet in the Southern Hemisphere. Geophysical Research Letters, 2013, 40, 3688-3692.	4.0	58
63	An Analysis of the Short-Term Cloud Feedback Using MODIS Data. Journal of Climate, 2013, 26, 4803-4815.	3.2	51
64	Contributions of Different Cloud Types to Feedbacks and Rapid Adjustments in CMIP5*. Journal of Climate, 2013, 26, 5007-5027.	3.2	235
65	Diagnosing the average spatio-temporal impact of convective systems â€" Part 1: A methodology for evaluating climate models. Atmospheric Chemistry and Physics, 2013, 13, 12043-12058.	4.9	2
66	Evaluating adjusted forcing and model spread for historical and future scenarios in the CMIP5 generation of climate models. Journal of Geophysical Research D: Atmospheres, 2013, 118, 1139-1150.	3.3	304
67	Are climate model simulations of clouds improving? An evaluation using the ISCCP simulator. Journal of Geophysical Research D: Atmospheres, 2013, 118, 1329-1342.	3.3	195
68	Climate Feedbacks and Their Implications for Poleward Energy Flux Changes in a Warming Climate. Journal of Climate, 2012, 25, 608-624.	3.2	128
69	Computing and Partitioning Cloud Feedbacks Using Cloud Property Histograms. Part II: Attribution to Changes in Cloud Amount, Altitude, and Optical Depth. Journal of Climate, 2012, 25, 3736-3754.	3.2	192
70	Computing and Partitioning Cloud Feedbacks Using Cloud Property Histograms. Part I: Cloud Radiative Kernels. Journal of Climate, 2012, 25, 3715-3735.	3.2	195
71	The observed sensitivity of high clouds to mean surface temperature anomalies in the tropics. Journal of Geophysical Research, 2011, 116, n/a-n/a.	3.3	85
72	Why is longwave cloud feedback positive?. Journal of Geophysical Research, 2010, 115, .	3.3	223

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73	Response of Humidity and Clouds to Tropical Deep Convection. Journal of Climate, 2009, 22, 2389-2404.	3.2	49