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List of Publications by Year
in descending order

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76 papers	8,767 citations	109321 35 h-index	88630 70 g-index
107 all docs	107 docs citations	107 times ranked	9700 citing authors

#	Article	IF	Citations
1	Bounding the role of black carbon in the climate system: A scientific assessment. Journal of Geophysical Research D: Atmospheres, 2013, 118, 5380-5552.	3.3	4,319
2	EC-Earth. Bulletin of the American Meteorological Society, 2010, 91, 1357-1364.	3.3	474
3	Bounding Global Aerosol Radiative Forcing of Climate Change. Reviews of Geophysics, 2020, 58, e2019RG000660.	23.0	424
4	Observational constraints on mixed-phase clouds imply higher climate sensitivity. Science, 2016, 352, 224-227.	12.6	331
5	Atmospheric composition change: Climateâ€“Chemistry interactions. Atmospheric Environment, 2009, 43, 5138-5192.	4.1	243
6	Model intercomparison of indirect aerosol effects. Atmospheric Chemistry and Physics, 2006, 6, 3391-3405.	4.9	205
7	Total aerosol effect: radiative forcing or radiative flux perturbation?. Atmospheric Chemistry and Physics, 2010, 10, 3235-3246.	4.9	184
8	The Geoengineering Model Intercomparison Project Phase 6 (GeoMIP6): simulation design and preliminary results. Geoscientific Model Development, 2015, 8, 3379-3392.	3.6	140
9	Aerosol-cloud interaction inferred from MODIS satellite data and global aerosol models. Atmospheric Chemistry and Physics, 2007, 7, 3081-3101.	4.9	133
10	Intercomparison of the cloud water phase among global climate models. Journal of Geophysical Research D: Atmospheres, 2014, 119, 3372-3400.	3.3	126
11	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
12	Aerosol Influence on Mixed-Phase Clouds in CAM-Oslo. Journals of the Atmospheric Sciences, 2008, 65, 3214-3230.	1.7	105
13	Aerosol-climate interactions in the CAM-Oslo atmospheric GCM and investigation of associated basic shortcomings. Tellus, Series A: Dynamic Meteorology and Oceanography, 2008, 60, 459-491.	1.7	97
14	Sensitivity Study on the Influence of Cloud Microphysical Parameters on Mixed-Phase Cloud Thermodynamic Phase Partitioning in CAM5. Journals of the Atmospheric Sciences, 2016, 73, 709-728.	1.7	96
15	Disentangling greenhouse warming and aerosol cooling to reveal Earthâ€™s climate sensitivity. Nature Geoscience, 2016, 9, 286-289.	12.9	86
16	Aerosol Effects on Climate via Mixed-Phase and Ice Clouds. Annual Review of Earth and Planetary Sciences, 2017, 45, 199-222.	11.0	83
17	Bacteria in the ECHAM5-HAM global climate model. Atmospheric Chemistry and Physics, 2012, 12, 8645-8661.	4.9	76
18	Evidence of Strong Contributions From Mixedâ€Phase Clouds to Arctic Climate Change. Geophysical Research Letters, 2019, 46, 2894-2902.	4.0	76

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19	Orographic Precipitation in the Tropics: The Dominica Experiment. Bulletin of the American Meteorological Society, 2012, 93, 1567-1579.	3.3	71
20	Cirrus cloud seeding has potential to cool climate. Geophysical Research Letters, 2013, 40, 178-182.	4.0	64
21	Spaceborne lidar observations of the iceâ€nucleating potential of dust, polluted dust, and smoke aerosols in mixedâ€phase clouds. Journal of Geophysical Research D: Atmospheres, 2014, 119, 6653-6665.	3.3	64
22	Predicting cloud droplet number concentration in Community Atmosphere Model (CAM)-Oslo. Journal of Geophysical Research, 2006, 111, .	3.3	61
23	Global modeling of mixed-phase clouds: The albedo and lifetime effects of aerosols. Journal of Geophysical Research, 2011, 116, .	3.3	60
24	Equilibrium climate sensitivity above 5â€‰Â°C plausible due to state-dependent cloud feedback. Nature Geoscience, 2020, 13, 718-721.	12.9	57
25	Aerosol-cloud-climate interactions in the climate model CAM-Oslo. Tellus, Series A: Dynamic Meteorology and Oceanography, 2008, 60, 492-512.	1.7	55
26	Modelling the impact of fungal spore ice nuclei on clouds and precipitation. Environmental Research Letters, 2013, 8, 014029.	5.2	55
27	The climatic effects of modifying cirrus clouds in a climate engineering framework. Journal of Geophysical Research D: Atmospheres, 2014, 119, 4174-4191.	3.3	52
28	Radiative Forcing of Climate: The Historical Evolution of the Radiative Forcing Concept, the Forcing Agents and their Quantification, and Applications. Meteorological Monographs, 2019, 59, 14.1-14.101.	5.0	52
29	The Wegener-Bergeron-Findeisen processÂâ€" Its discovery and vital importance for weather and climate. Meteorologische Zeitschrift, 2015, 24, 455-461.	1.0	48
30	Cirrus cloud susceptibility to the injection of ice nuclei in the upper troposphere. Journal of Geophysical Research D: Atmospheres, 2014, 119, 2375-2389.	3.3	47
31	Testing the sensitivity of past climates to the indirect effects of dust. Geophysical Research Letters, 2017, 44, 5807-5817.	4.0	45
32	Influence of cloud phase composition on climate feedbacks. Journal of Geophysical Research D: Atmospheres, 2014, 119, 3687-3700.	3.3	43
33	Cloud Phase Changes Induced by CO2 Warmingâ€"a Powerful yet Poorly Constrained Cloud-Climate Feedback. Current Climate Change Reports, 2015, 1, 288-296.	8.6	43
34	Near-linear response of mean monsoon strength to a broad range of radiative forcings. Proceedings of the National Academy of Sciences of the United States of America, 2016, 113, 1510-1515.	7.1	41
35	Modeling of the Wegenerâ€"Bergeronâ€"Findeisen processâ€"implications for aerosol indirect effects. Environmental Research Letters, 2008, 3, 045001.	5.2	39
36	What governs the spread in shortwave forcings in the transient IPCC AR4 models?. Geophysical Research Letters, 2009, 36, .	4.0	36

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37	Combined observational and modeling based study of the aerosol indirect effect. Atmospheric Chemistry and Physics, 2006, 6, 3583-3601.	4.9	35
38	Cirrus cloud seeding: a climate engineering mechanism with reduced side effects?. Philosophical Transactions Series A, Mathematical, Physical, and Engineering Sciences, 2014, 372, 20140116.	3.4	35
39	Strong impacts on aerosol indirect effects from historical oxidant changes. Atmospheric Chemistry and Physics, 2018, 18, 7669-7690.	4.9	34
40	Improving climate projections by understanding how cloud phase affects radiation. Journal of Geophysical Research D: Atmospheres, 2017, 122, 4594-4599.	3.3	29
41	Thermodynamic and dynamic responses of the hydrological cycle to solar dimming. Atmospheric Chemistry and Physics, 2017, 17, 6439-6453.	4.9	26
42	Energy Budget Constraints on the Time History of Aerosol Forcing and Climate Sensitivity. Journal of Geophysical Research D: Atmospheres, 2021, 126, e2020JD033622.	3.3	25
43	Bias in CMIP6 models as compared to observed regional dimming and brightening. Atmospheric Chemistry and Physics, 2020, 20, 16023-16040.	4.9	25
44	Global radiative effects of solid fuel cookstove aerosol emissions. Atmospheric Chemistry and Physics, 2018, 18, 5219-5233.	4.9	22
45	To what extent can cirrus cloud seeding counteract global warming?. Environmental Research Letters, 2020, 15, 054002.	5.2	22
46	Lethargic Response to Aerosol Emissions in Current Climate Models. Geophysical Research Letters, 2018, 45, 9814-9823.	4.0	19
47	Global Radiative Impacts of Black Carbon Acting as Ice Nucleating Particles. Geophysical Research Letters, 2020, 47, e2020GL089056.	4.0	18
48	Precipitation efficiency constraint on climate change. Nature Climate Change, 2022, 12, 642-648.	18.8	18
49	Uncertainties in aerosol direct and indirect effects attributed to uncertainties in convective transport parameterizations. Atmospheric Research, 2012, 118, 357-369.	4.1	17
50	Econometric estimates of Earthâ€™s transient climate sensitivity. Journal of Econometrics, 2020, 214, 6-32.	6.5	16
51	Importance of Orography for Greenland Cloud and Melt Response to Atmospheric Blocking. Journal of Climate, 2020, 33, 4187-4206.	3.2	16
52	A Process Study on Thinning of Arctic Winter Cirrus Clouds With Highâ€Resolution ICONâ€ART Simulations. Journal of Geophysical Research D: Atmospheres, 2019, 124, 5860-5888.	3.3	15
53	A Positive Iris Feedback: Insights from Climate Simulations with Temperature-Sensitive Cloudâ€“Rain Conversion. Journal of Climate, 2019, 32, 5305-5324.	3.2	14
54	Reply to Levermann et al.: Linear scaling for monsoons based on well-verified balance between adiabatic cooling and latent heat release. Proceedings of the National Academy of Sciences of the United States of America, 2016, 113, E2350-1.	7.1	11

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55	A Study of Enhanced Heterogeneous Ice Nucleation in Simulated Deep Convective Clouds Observed During DC3. Journal of Geophysical Research D: Atmospheres, 2018, 123, 13,396.	3.3	10
56	Exploring the Cloud Top Phase Partitioning in Different Cloud Types Using Active and Passive Satellite Sensors. Geophysical Research Letters, 2021, 48, e2020GL089863.	4.0	10
57	Using Satellite Observations to Evaluate Model Microphysical Representation of Arctic Mixedâ€Phase Clouds. Geophysical Research Letters, 2022, 49, .	4.0	8
58	Climate sensitivity indices and their relation with projected temperature change in CMIP6 models. Environmental Research Letters, 2021, 16, 064095.	5.2	6
59	Modeling of the Wegenerâ€“Bergeronâ€“Findeisen processâ€”implications for aerosol indirect effects. Environmental Research Letters, 2010, 5, 019801.	5.2	5
60	Modeling aerosol activation in a tropical, orographic, island setting: Sensitivity tests and comparison with observations. Atmospheric Research, 2013, 134, 12-23.	4.1	5
61	Exploring Impacts of Sizeâ€Dependent Evaporation and Entrainment in a Global Model. Journal of Geophysical Research D: Atmospheres, 2020, 125, e2019JD031817.	3.3	4
62	Global Radiative Impacts of Mineral Dust Perturbations Through Stratiform Clouds. Journal of Geophysical Research D: Atmospheres, 2020, 125, e2019JD031807.	3.3	4
63	Aerosol-cloud-climate interactions in the climate model CAM-Oslo. Tellus, Series A: Dynamic Meteorology and Oceanography, 2008, , .	1.7	4
64	Springtime Stratospheric Volcanic Aerosol Impact on Midlatitude Cirrus Clouds. Geophysical Research Letters, 2022, 49, .	4.0	4
65	Observational Constraints on Southern Ocean Cloud-Phase Feedback. Journal of Climate, 2022, 35, 5087-5102.	3.2	4
66	Cirrus Cloud Seeding has Potential to Cool climate. Geophysical Research Letters, 2013, , n/a-n/a.	4.0	3
67	The contribution of drifting snow to cloud properties and the atmospheric radiative budget over Antarctica. Geophysical Research Letters, 2021, 48, e2021GL094967.	4.0	3
68	Atmospheric Composition Change. , 2012, , 309-365.		2
69	Disentangling the Microphysical Effects of Fire Particles on Convective Clouds Through A Case Study. Journal of Geophysical Research D: Atmospheres, 2020, 125, e2019JD031890.	3.3	2
70	Inter-comparison of the phase partitioning of cloud water among global climate models. , 2013, , .		1
71	The Climatic Impact of Thermodynamic Phase Partitioning in Mixed-Phase Clouds. , 2018, , 237-264.		1
72	Prediction of Cloud Fractional Cover Using Machine Learning. Big Data and Cognitive Computing, 2021, 5, 62.	4.7	1

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73	The Ability of the ICE-T Microphysics Scheme in HARMONIE-AROME to Predict Aircraft Icing. Weather and Forecasting, 2022, 37, 205-217.	1.4	1
74	Observationally Constrained Cloud Phase Unmasks Orbitally Driven Climate Feedbacks. Geophysical Research Letters, 2021, 48, e2020GL091873.	4.0	0
75	Post-flight analysis of detailed size distributions of warm cloud droplets, as determined in situ by cloud and aerosol spectrometers. Atmospheric Measurement Techniques, 2021, 14, 6777-6794.	3.1	0
76	Aerosol-climate interactions in the CAM-Oslo atmospheric GCM and investigation of associated basic shortcomings. Tellus, Series A: Dynamic Meteorology and Oceanography, 2008, , .	1.7	0