Jason Cole

List of Publications by Year in Descending Order

71 papers	3,502 citations	26 h-index	58 g-index
92 ext. papers	4,100 ext. citations	5.4 avg, IF	4.49 L-index

#	Paper	IF	Citations
71	Effects of forcing differences and initial conditions on inter-model agreement in the VolMIP volc-pinatubo-full experiment. *Geoscientific Model Development*, **2022**, 15, 2265-2292	6.3	2
70	Comparing different generations of idealized solar geoengineering simulations in the Geoengineering Model Intercomparison Project (GeoMIP). *Atmospheric Chemistry and Physics*, **2021**, 21, 4231-4247	6.8	7
69	The Climate Response to Emissions Reductions Due to COVID-19: Initial Results From CovidMIP. *Geophysical Research Letters*, **2021**, 48, e2020GL091883	4.9	19
68	Significant impact of forcing uncertainty in a large ensemble of climate model simulations. *Proceedings of the National Academy of Sciences of the United States of America*, **2021**, 118,	11.5	9
67	Cloud Feedbacks from CanESM2 to CanESM5.0 and their influence on climate sensitivity. *Geoscientific Model Development*, **2021**, 14, 5355-5372	6.3	2
66	An Observational Constraint on Aviation-Induced Cirrus From the COVID-19-Induced Flight Disruption.. *Geophysical Research Letters*, **2021**, 48, e2021GL095882	4.9	1
65	Effective radiative forcing and adjustments in CMIP6 models **2020**,		3
64	Simulation of convective moistening of the extratropical lower stratosphere using a numerical weather prediction model. *Atmospheric Chemistry and Physics*, **2020**, 20, 2143-2159	6.8	8
63	Modelling the relationship between liquid water content and cloud droplet number concentration observed in low clouds in the summer Arctic and its radiative effects. *Atmospheric Chemistry and Physics*, **2020**, 20, 29-43	6.8	2
62	Quantifying CanESM5 and EAMv1 sensitivities to Mt. Pinatubo volcanic forcing for the CMIP6 historical experiment. *Geoscientific Model Development*, **2020**, 13, 4831-4843	6.3	2
61	Bias in CMIP6 models as compared to observed regional dimming and brightening. *Atmospheric Chemistry and Physics*, **2020**, 20, 16023-16040	6.8	17
60	Effective radiative forcing and adjustments in CMIP6 models. *Atmospheric Chemistry and Physics*, **2020**, 20, 9591-9618	6.8	66
59	New Generation of Climate Models Track Recent Unprecedented Changes in Earth's Radiation Budget Observed by CERES. *Geophysical Research Letters*, **2020**, 47, e2019GL086705	4.9	14
58	Fast responses on pre-industrial climate from present-day aerosols in a CMIP6 multi-model study. *Atmospheric Chemistry and Physics*, **2020**, 20, 8381-8404	6.8	6
57	The Canadian Earth System Model version 5 (CanESM5.0.3) **2019**,		12
56	Convective response to large-scale forcing in the tropical western Pacific simulated by spCAM5 and CanAM4.3. *Geoscientific Model Development*, **2019**, 12, 2107-2117	6.3	1
55	Accounting for Several Infrared Radiation Processes in Climate Models. *Journal of Climate*, **2019**, 32, 4601-4620	4.4	5

54	The Canadian Earth System Model version 5 (CanESM5.0.3). *Geoscientific Model Development*, **2019**, 12, 4823-4873	6.3	250
53	CAUSES: Attribution of Surface Radiation Biases in NWP and Climate Models near the U.S. Southern Great Plains. *Journal of Geophysical Research D: Atmospheres*, **2018**, 123, 3612-3644	4.4	40
52	Response to marine cloud brightening in a multi-model ensemble. *Atmospheric Chemistry and Physics*, **2018**, 18, 621-634	6.8	22
51	Evaluation of a high-resolution numerical weather prediction model's simulated clouds using observations from CloudSat, GOES-13 and in situ aircraft. *Quarterly Journal of the Royal Meteorological Society*, **2018**, 144, 1681-1694	6.4	7
50	CAUSES: On the Role of Surface Energy Budget Errors to the Warm Surface Air Temperature Error Over the Central United States. *Journal of Geophysical Research D: Atmospheres*, **2018**, 123, 2888-2909	4.4	43
49	Introduction to CAUSES: Description of Weather and Climate Models and Their Near-Surface Temperature Errors in 5 day Hindcasts Near the Southern Great Plains. *Journal of Geophysical Research D: Atmospheres*, **2018**, 123, 2655-2683	4.4	37
48	Extreme temperature and precipitation response to solar dimming and stratospheric aerosol geoengineering. *Atmospheric Chemistry and Physics*, **2018**, 18, 10133-10156	6.8	10
47	How Well Are Clouds Simulated over Greenland in Climate Models? Consequences for the Surface Cloud Radiative Effect over the Ice Sheet. *Journal of Climate*, **2018**, 31, 9293-9312	4.4	7
46	The climate effects of increasing ocean albedo: an idealized representation of solar geoengineering. *Atmospheric Chemistry and Physics*, **2018**, 18, 13097-13113	6.8	11
45	Extreme temperature and precipitation response to solar dimming and stratospheric aerosol geoengineering **2018**,		1
44	Shortwave radiative forcing, rapid adjustment, and feedback to the surface by sulfate geoengineering: analysis of the Geoengineering Model Intercomparison Project G4 scenario. *Atmospheric Chemistry and Physics*, **2017**, 17, 3339-3356	6.8	13
43	Shortwave radiative forcing and feedback to the surface by sulphate geoengineering: Analysis of the Geoengineering Model Intercomparison Project G4 scenario **2016**,		1
42	A parametrization of 3-D subgrid-scale clouds for conventional GCMs: Assessment using A-Train satellite data and solar radiative transfer characteristics. *Journal of Advances in Modeling Earth Systems*, **2016**, 8, 566-597	7.1	7
41	Investigating the spread in surface albedo for snow-covered forests in CMIP5 models. *Journal of Geophysical Research D: Atmospheres*, **2016**, 121, 1104-1119	4.4	29
40	A comparison of two representations of subgrid-scale cloud structure in a global model: radiative effects as a function of cloud characteristics. *Quarterly Journal of the Royal Meteorological Society*, **2016**, 142, 2551-2561	6.4	2
39	A quantitative assessment of precipitation associated with the ITCZ in the CMIP5 GCM simulations. *Climate Dynamics*, **2016**, 47, 1863-1880	4.2	26
38	Robustness, uncertainties, and emergent constraints in the radiative responses of stratocumulus cloud regimes to future warming. *Climate Dynamics*, **2016**, 46, 3025-3039	4.2	26
37	The impact of equilibrating hemispheric albedos on tropical performance in the HadGEM2-ES coupled climate model. *Geophysical Research Letters*, **2016**, 43, 395-403	4.9	40

36	Evaluating the Diurnal Cycle of Upper-Tropospheric Ice Clouds in Climate Models Using SMILES Observations. *Journals of the Atmospheric Sciences*, **2015**, 72, 1022-1044	2.1	27
35	Estimation of Errors in Two-Stream Approximations of the Solar Radiative Transfer Equation for Cloudy-Sky Conditions. *Journals of the Atmospheric Sciences*, **2015**, 72, 4053-4074	2.1	22
34	The diurnal cycle of marine cloud feedback in climate models. *Climate Dynamics*, **2015**, 44, 1419-1436	4.2	17
33	Assessing the quality of active-passive satellite retrievals using broad-band radiances. *Quarterly Journal of the Royal Meteorological Society*, **2015**, 141, 1294-1305	6.4	4
32	The impact of parametrized convection on cloud feedback. *Philosophical Transactions Series A, Mathematical, Physical, and Engineering Sciences*, **2015**, 373,	3	54
31	Evaluation of CMIP5 upper troposphere and lower stratosphere geopotential height with GPS radio occultation observations. *Journal of Geophysical Research D: Atmospheres*, **2015**, 120, 1678-1689	4.4	9
30	Vertical structure and physical processes of the Madden-Julian Oscillation: Biases and uncertainties at short range. *Journal of Geophysical Research D: Atmospheres*, **2015**, 120, 4749-4763	4.4	24
29	Simulation of black carbon in snow and its climate impact in the Canadian Global Climate Model. *Atmospheric Chemistry and Physics*, **2015**, 15, 10887-10904	6.8	15
28	Application of a Monte Carlo solar radiative transfer modelin the McICA framework. *Quarterly Journal of the Royal Meteorological Society*, **2015**, 141, 3130-3139	6.4	4
27	Radiative flux and forcing parameterization error in aerosol-free clear skies. *Geophysical Research Letters*, **2015**, 42, 5485-5492	4.9	46
26	The EarthCARE Satellite: The Next Step Forward in Global Measurements of Clouds, Aerosols, Precipitation, and Radiation. *Bulletin of the American Meteorological Society*, **2015**, 96, 1311-1332	6.1	321
25	A Global Climatology of Outgoing Longwave Spectral Cloud Radiative Effect and Associated Effective Cloud Properties. *Journal of Climate*, **2014**, 27, 7475-7492	4.4	14
24	A multimodel examination of climate extremes in an idealized geoengineering experiment. *Journal of Geophysical Research D: Atmospheres*, **2014**, 119, 3900-3923	4.4	60
23	Key factors governing uncertainty in the response to sunshade geoengineering from a comparison of the GeoMIP ensemble and a perturbed parameter ensemble. *Journal of Geophysical Research D: Atmospheres*, **2014**, 119, 7946-7962	4.4	9
22	Decadal Covariability of the Northern Wintertime Land Surface Temperature and Atmospheric Circulation. *Journal of Climate*, **2014**, 27, 633-651	4.4	5
21	Solar radiation management impacts on agriculture in China: A case study in the Geoengineering Model Intercomparison Project (GeoMIP). *Journal of Geophysical Research D: Atmospheres*, **2014**, 119, 8695-8711	4.4	42
20	A multi-model assessment of regional climate disparities caused by solar geoengineering. *Environmental Research Letters*, **2014**, 9, 074013	6.2	77
19	Volcanic contribution to decadal changes in tropospheric temperature. *Nature Geoscience*, **2014**, 7, 185-189	13.3	304

18	Forcings and feedbacks in the GeoMIP ensemble for a reduction in solar irradiance and increase in CO2. *Journal of Geophysical Research D: Atmospheres*, **2014**, 119, 5226-5239	4.4	18
17	Climate model response from the Geoengineering Model Intercomparison Project (GeoMIP). *Journal of Geophysical Research D: Atmospheres*, **2013**, 118, 8320-8332	4.4	195
16	The Canadian Fourth Generation Atmospheric Global Climate Model (CanAM4). Part I: Representation of Physical Processes. *Atmosphere - Ocean*, **2013**, 51, 104-125	1.5	260
15	Longwave Band-By-Band Cloud Radiative Effect and Its Application in GCM Evaluation. *Journal of Climate*, **2013**, 26, 450-467	4.4	11
14	The impact of abrupt suspension of solar radiation management (termination effect) in experiment G2 of the Geoengineering Model Intercomparison Project (GeoMIP). *Journal of Geophysical Research D: Atmospheres*, **2013**, 118, 9743-9752	4.4	113
13	The hydrological impact of geoengineering in the Geoengineering Model Intercomparison Project (GeoMIP). *Journal of Geophysical Research D: Atmospheres*, **2013**, 118, 11,036-11,058	4.4	161
12	Diagnosis of regime-dependent cloud simulation errors in CMIP5 models using A-Train satellite observations and reanalysis data. *Journal of Geophysical Research D: Atmospheres*, **2013**, 118, 2762-2780	4.4	78
11	An energetic perspective on hydrological cycle changes in the Geoengineering Model Intercomparison Project. *Journal of Geophysical Research D: Atmospheres*, **2013**, 118, 13,087-13,102	4.4	53
10	Evaluation of cloud and water vapor simulations in CMIP5 climate models using NASA A-Train satellite observations. *Journal of Geophysical Research*, **2012**, 117, n/a-n/a		282
9	The Continual Intercomparison of Radiation Codes: Results from Phase I. *Journal of Geophysical Research*, **2012**, 117, n/a-n/a		96
8	Tropical and Subtropical Cloud Transitions in Weather and Climate Prediction Models: The GCSS/WGNE Pacific Cross-Section Intercomparison (GPCI). *Journal of Climate*, **2011**, 24, 5223-5256	4.4	112
7	Assessing Simulated Clouds and Radiative Fluxes Using Properties of Clouds Whose Tops are Exposed to Space. *Journal of Climate*, **2011**, 24, 2715-2727	4.4	22
6	Constraints on interactions between aerosols and clouds on a global scale from a combination of MODIS-CERES satellite data and climate simulations. *Atmospheric Chemistry and Physics*, **2010**, 10, 9851-9861	6.8	15
5	Intercomparison of model simulations of mixed-phase clouds observed during the ARM Mixed-Phase Arctic Cloud Experiment. II: Multilayer cloud. *Quarterly Journal of the Royal Meteorological Society*, **2009**, 135, 1003-1019	6.4	69
4	Intercomparison of model simulations of mixed-phase clouds observed during the ARM Mixed-Phase Arctic Cloud Experiment. I: single-layer cloud. *Quarterly Journal of the Royal Meteorological Society*, **2009**, 135, 979-1002	6.4	192
3	Full-Spectrum Correlated-k Distribution for Shortwave Atmospheric Radiative Transfer. *Journals of the Atmospheric Sciences*, **2004**, 61, 2588-2601	2.1	16
2	Response to marine cloud brightening in a multi-model ensemble		2
1	Simulation of black carbon in snow and its climate impact in the Canadian Global Climate Model		1