Phil Rasch

List of Publications by Year in Descending Order

238 papers	22,913 citations	74 h-index	149 g-index
255 ext. papers	25,665 ext. citations	5.6 avg, IF	6.62 L-index

#	Paper	IF	Citations
238	Increased Variability of Biomass Burning Emissions in CMIP6 Amplifies Hydrologic Cycle in the CESM2 Large Ensemble. *Geophysical Research Letters*, **2022**, 49,	4.9	0
237	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	6.3	0
236	CondiDiag1.0: a flexible online diagnostic tool for conditional sampling and budget analysis in the E3SM atmosphere model (EAM). *Geoscientific Model Development*, **2022**, 15, 3205-3231	6.3	0
235	OCEANFILMS (Organic Compounds from Ecosystems to Aerosols: Natural Films and Interfaces via Langmuir Molecular Surfactants) sea spray organic aerosol emissions – Implementation in a global climate model and impacts on clouds. *Atmospheric Chemistry and Physics*, **2022**, 22, 5223-5251	6.8	4
234	Increasing large wildfires over the western United States linked to diminishing sea ice in the Arctic. *Nature Communications*, **2021**, 12, 6048	17.4	2
233	Quantifying and attributing time step sensitivities in present-day climate simulations conducted with EAMv1. *Geoscientific Model Development*, **2021**, 14, 1921-1948	6.3	3
232	Development and Evaluation of Chemistry-Aerosol-Climate Model CAM5-Chem-MAM7-MOSAIC: Global Atmospheric Distribution and Radiative Effects of Nitrate Aerosol. *Journal of Advances in Modeling Earth Systems*, **2021**, 13, e2020MS002346	7.1	8
231	Effects of Organized Convection Parameterization on the MJO and Precipitation in E3SMv1. Part I: Mesoscale Heating. *Journal of Advances in Modeling Earth Systems*, **2021**, 13, e2020MS002401	7.1	4
230	A Lagrangian Perspective on Tropical Anvil Cloud Lifecycle in Present and Future Climate. *Journal of Geophysical Research D: Atmospheres*, **2021**, 126, e2020JD033487	4.4	7
229	Radiative Forcing of Nitrate Aerosols From 1975 to 2010 as Simulated by MOSAIC Module in CESM2-MAM4. *Journal of Geophysical Research D: Atmospheres*, **2021**, 126, e2021JD034809	4.4	3
228	Understanding the Cold Season Arctic Surface Warming Trend in Recent Decades. *Geophysical Research Letters*, **2021**, 48, e2021GL094878	4.9	2
227	Improving Time Step Convergence in an Atmosphere Model With Simplified Physics: The Impacts of Closure Assumption and Process Coupling. *Journal of Advances in Modeling Earth Systems*, **2020**, 12, e2019MS001982	7.1	3
226	Assessing Global and Local Radiative Feedbacks Based on AGCM Simulations for 1980–2014/2017. *Geophysical Research Letters*, **2020**, 47, e2020GL088063	4.9	6
225	Influence of sea-ice anomalies on Antarctic precipitation using source attribution in the Community Earth System Model. *Cryosphere*, **2020**, 14, 429-444	5.5	9
224	The Community Earth System Model Version 2 (CESM2). *Journal of Advances in Modeling Earth Systems*, **2020**, 12, e2019MS001916	7.1	358
223	Atmospheric teleconnection processes linking winter air stagnation and haze extremes in China with regional Arctic sea ice decline. *Atmospheric Chemistry and Physics*, **2020**, 20, 4999-5017	6.8	14
222	New SOA Treatments Within the Energy Exascale Earth System Model (E3SM): Strong Production and Sinks Govern Atmospheric SOA Distributions and Radiative Forcing. *Journal of Advances in Modeling Earth Systems*, **2020**, 12, e2020MS002266	7.1	7

221	Aerosols in the E3SM Version 1: New Developments and Their Impacts on Radiative Forcing. *Journal of Advances in Modeling Earth Systems*, **2020**, 12, e2019MS001851	7.1	27
220	A Partial Coupling Method to Isolate the Roles of the Atmosphere and Ocean in Coupled Climate Simulations. *Journal of Advances in Modeling Earth Systems*, **2020**, 12, e2019MS002016	7.1	1
219	Disentangling the Coupled Atmosphere-Ocean-Ice Interactions Driving Arctic Sea Ice Response to CO2 Increases. *Journal of Advances in Modeling Earth Systems*, **2020**, 12, e2019MS001902	7.1	
218	E3SMv0-HiLAT: A Modified Climate System Model Targeted for the Study of High-Latitude Processes. *Journal of Advances in Modeling Earth Systems*, **2019**, 11, 2814-2843	7.1	5
217	Black Carbon Increases Frequency of Extreme ENSO Events. *Journal of Climate*, **2019**, 32, 8323-8333	4.4	8
216	Three-Moment Representation of Rain in a Bulk Microphysics Model. *Journal of Advances in Modeling Earth Systems*, **2019**, 11, 257-277	7.1	20
215	Variability, timescales, and nonlinearity in climate responses to black carbon emissions. *Atmospheric Chemistry and Physics*, **2019**, 19, 2405-2420	6.8	23
214	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	7.1	29
213	Impact of Anthropogenic Emission Injection Height Uncertainty on Global Sulfur Dioxide and Aerosol Distribution. *Journal of Geophysical Research D: Atmospheres*, **2019**, 124, 4812-4826	4.4	10
212	Northern Hemisphere Blocking in ~25-km-Resolution E3SM v0.3 Atmosphere-Land Simulations. *Journal of Geophysical Research D: Atmospheres*, **2019**, 124, 2465-2482	4.4	4
211	The DOE E3SM Coupled Model Version 1: Overview and Evaluation at Standard Resolution. *Journal of Advances in Modeling Earth Systems*, **2019**, 11, 2089-2129	7.1	217
210	Regionally refined test bed in E3SM atmosphere model version 1 (EAMv1) and applications for high-resolution modeling. *Geoscientific Model Development*, **2019**, 12, 2679-2706	6.3	22
209	An Overview of the Atmospheric Component of the Energy Exascale Earth System Model. *Journal of Advances in Modeling Earth Systems*, **2019**, 11, 2377-2411	7.1	85
208	Regionally refined capability in E3SM Atmosphere Model Version 1 (EAMv1) and applications for high-resolution modelling **2019**,		4
207	Understanding Monsoonal Water Cycle Changes in a Warmer Climate in E3SMv1 Using a Normalized Gross Moist Stability Framework. *Journal of Geophysical Research D: Atmospheres*, **2019**, 124, 10826-10843	4.4	2
206	An Objective and Efficient Method for Assessing the Impact of Reduced-Precision Calculations On Solution Correctness. *Journal of Advances in Modeling Earth Systems*, **2019**, 11, 3131-3147	7.1	
205	Unraveling driving forces explaining significant reduction in satellite-inferred Arctic surface albedo since the 1980s. *Proceedings of the National Academy of Sciences of the United States of America*, **2019**, 116, 23947-23953	11.5	29
204	Subtropical Marine Low Stratiform Cloud Deck Spatial Errors in the E3SMv1 Atmosphere Model. *Geophysical Research Letters*, **2019**, 46, 12598-12607	4.9	7

203	Improved Simulation of the QBO in E3SMv1. *Journal of Advances in Modeling Earth Systems*, **2019**, 11, 3403-3418	7.1	6
202	Antarctic Sea Ice Expansion, Driven by Internal Variability, in the Presence of Increasing Atmospheric CO2. *Geophysical Research Letters*, **2019**, 46, 14762-14771	4.9	9
201	Black Carbon Amplifies Haze Over the North China Plain by Weakening the East Asian Winter Monsoon. *Geophysical Research Letters*, **2019**, 46, 452-460	4.9	41
200	Using the Atmospheric Radiation Measurement (ARM) Datasets to Evaluate Climate Models in Simulating Diurnal and Seasonal Variations of Tropical Clouds. *Journal of Climate*, **2018**, 31, 3301-3325	4.4	8
199	The Role of Convective Gustiness in Reducing Seasonal Precipitation Biases in the Tropical West Pacific. *Journal of Advances in Modeling Earth Systems*, **2018**, 10, 961-970	7.1	12
198	Recent intensification of winter haze in China linked to foreign emissions and meteorology. *Scientific Reports*, **2018**, 8, 2107	4.9	39
197	Investigating the Linear Dependence of Direct and Indirect Radiative Forcing on Emission of Carbonaceous Aerosols in a Global Climate Model. *Journal of Geophysical Research D: Atmospheres*, **2018**, 123, 1657-1672	4.4	3
196	Sulfate Aerosol in the Arctic: Source Attribution and Radiative Forcing. *Journal of Geophysical Research D: Atmospheres*, **2018**, 123, 1899-1918	4.4	28
195	Observational constraint on cloud susceptibility weakened by aerosol retrieval limitations. *Nature Communications*, **2018**, 9, 2640	17.4	26
194	Physics□Dynamics Coupling in Weather, Climate, and Earth System Models: Challenges and Recent Progress. *Monthly Weather Review*, **2018**, 146, 3505-3544	2.4	36
193	On the Relative Roles of the Atmosphere and Ocean in the Atlantic Multidecadal Variability. *Geophysical Research Letters*, **2018**, 45, 9186-9196	4.9	12
192	Local Radiative Feedbacks Over the Arctic Based on Observed Short-Term Climate Variations. *Geophysical Research Letters*, **2018**, 45, 5761-5770	4.9	16
191	Source Apportionments of Aerosols and Their Direct Radiative Forcing and Long-Term Trends Over Continental United States. *Earth's Future*, **2018**, 6, 793-808	7.9	26
190	Linking deep convection and phytoplankton blooms in the northern Labrador Sea in a changing climate. *PLoS ONE*, **2018**, 13, e0191509	3.7	5
189	Impact of numerical choices on water conservation in the E3SM Atmosphere Model version 1 (EAMv1). *Geoscientific Model Development*, **2018**, 11, 1971-1988	6.3	23
188	Understanding Cloud and Convective Characteristics in Version 1 of the E3SM Atmosphere Model. *Journal of Advances in Modeling Earth Systems*, **2018**, 10, 2618-2644	7.1	54
187	Variability, timescales, and non-linearity in climate responses to black carbon emissions **2018**,		1
186	Parametric Sensitivity and Uncertainty Quantification in the Version 1 of E3SM Atmosphere Model Based on Short Perturbed Parameter Ensemble Simulations. *Journal of Geophysical Research D: Atmospheres*, **2018**, 123, 13,046	4.4	34

185	OCEANFILMS sea-spray organic aerosol emissions Part 1: implementation and impacts on clouds **2018**,		8
184	How Asymmetries Between Arctic and Antarctic Climate Sensitivity Are Modified by the Ocean. *Geophysical Research Letters*, **2018**, 45, 13,031	4.9	8
183	Climatic Responses to Future Trans-Arctic Shipping. *Geophysical Research Letters*, **2018**, 45, 9898-9908	4.9	19
182	The climate effects of increasing ocean albedo: an idealized representation of solar geoengineering. *Atmospheric Chemistry and Physics*, **2018**, 18, 13097-13113	6.8	11
181	Characterizing the Relative Importance Assigned to Physical Variables by Climate Scientists when Assessing Atmospheric Climate Model Fidelity. *Advances in Atmospheric Sciences*, **2018**, 35, 1101-1113	2.9	4
180	Global long-range transport and lung cancer risk from polycyclic aromatic hydrocarbons shielded by coatings of organic aerosol. *Proceedings of the National Academy of Sciences of the United States of America*, **2017**, 114, 1246-1251	11.5	131
179	Large Contribution of Coarse Mode to Aerosol Microphysical and Optical Properties: Evidence from Ground-Based Observations of a Transpacific Dust Outbreak at a High-Elevation North American Site. *Journals of the Atmospheric Sciences*, **2017**, 74, 1431-1443	2.1	3
178	Could geoengineering research help answer one of the biggest questions in climate science?. *Earthps Future*, **2017**, 5, 659-663	7.9	24
177	Empirical Analysis of the Subjective Impressions and Objective Measures of Domain ScientistsS Visual Analytic Judgments **2017**,		8
176	Accelerated increase in the Arctic tropospheric warming events surpassing stratospheric warming events during winter. *Geophysical Research Letters*, **2017**, 44, 3806-3815	4.9	14
175	A new and inexpensive non-bit-for-bit solution reproducibility test based on time step convergence (TSC1.0). *Geoscientific Model Development*, **2017**, 10, 537-552	6.3	9
174	Impact of numerical choices on water conservation in the E3SM Atmosphere Model Version 1 (EAM V1) **2017**,		1
173	A SourceReceptor Perspective on the Polar Hydrologic Cycle: Sources, Seasonality, and ArcticAntarctic Parity in the Hydrologic Cycle Response to CO2 Doubling. *Journal of Climate*, **2017**, 30, 9999-10017	4.4	17
172	Increased Ocean Heat Convergence Into the High Latitudes With CO2 Doubling Enhances Polar-Amplified Warming. *Geophysical Research Letters*, **2017**, 44, 10,583-10,591	4.9	33
171	Technical note: Simultaneous fully dynamic characterization of multiple inpututput relationships in climate models. *Atmospheric Chemistry and Physics*, **2017**, 17, 2525-2541	6.8	3
170	Source attribution of black carbon and its direct radiative forcing in China. *Atmospheric Chemistry and Physics*, **2017**, 17, 4319-4336	6.8	54
169	Global source attribution of sulfate concentration and direct and indirect radiative forcing. *Atmospheric Chemistry and Physics*, **2017**, 17, 8903-8922	6.8	38
168	Recent advances in understanding secondary organic aerosol: Implications for global climate forcing. *Reviews of Geophysics*, **2017**, 55, 509-559	23.1	359

167	Impacts of ENSO events on cloud radiative effects in preindustrial conditions: Changes in cloud fraction and their dependence on interactive aerosol emissions and concentrations. *Journal of Geophysical Research D: Atmospheres*, **2016**, 121, 6321-6335	4.4	15
166	Geoengineering with stratospheric aerosols: What do we not know after a decade of research?. *Earth's Future*, **2016**, 4, 543-548	7.9	29
165	Evaluation of observed and modelled aerosol lifetimes using radioactive tracers of opportunity and an ensemble of 19 global models. *Atmospheric Chemistry and Physics*, **2016**, 16, 3525-3561	6.8	58
164	The role of carbonaceous aerosols on short-term variations of precipitation over North Africa. *Atmospheric Science Letters*, **2016**, 17, 407-414	2.4	6
163	Geoengineering as a design problem. *Earth System Dynamics*, **2016**, 7, 469-497	4.8	70
162	Description and evaluation of a new four-mode version of the Modal Aerosol Module (MAM4) within version 5.3 of the Community Atmosphere Model. *Geoscientific Model Development*, **2016**, 9, 505-522	6.3	179
161	Toward reconciling the influence of atmospheric aerosols and greenhouse gases on light precipitation changes in Eastern China. *Journal of Geophysical Research D: Atmospheres*, **2016**, 121, 5878-5887	4.4	38
160	Improving our fundamental understanding of the role of aerosol-cloud interactions in the climate system. *Proceedings of the National Academy of Sciences of the United States of America*, **2016**, 113, 5781-90	11.5	314
159	Increasing water cycle extremes in California and in relation to ENSO cycle under global warming. *Nature Communications*, **2015**, 6, 8657	17.4	116
158	A multiscale modeling framework model (superparameterized CAM5) with a higher-order turbulence closure: Model description and low-cloud simulations. *Journal of Advances in Modeling Earth Systems*, **2015**, 7, 484-509	7.1	31
157	How does increasing horizontal resolution in a global climate model improve the simulation of aerosol-cloud interactions?. *Geophysical Research Letters*, **2015**, 42, 5058-5065	4.9	46
156	Global transformation and fate of SOA: Implications of low-volatility SOA and gas-phase fragmentation reactions. *Journal of Geophysical Research D: Atmospheres*, **2015**, 120, 4169-4195	4.4	96
155	On solar geoengineering and climate uncertainty. *Geophysical Research Letters*, **2015**, 42, 7156-7161	4.9	14
154	Parametric sensitivity analysis of precipitation at global and local scales in the Community Atmosphere Model CAM5. *Journal of Advances in Modeling Earth Systems*, **2015**, 7, 382-411	7.1	64
153	Quantifying sources, transport, deposition, and radiative forcing of black carbon over the Himalayas and Tibetan Plateau. *Atmospheric Chemistry and Physics*, **2015**, 15, 6205-6223	6.8	92
152	Carbonaceous aerosols recorded in a southeastern Tibetan glacier: analysis of temporal variations and model estimates of sources and radiative forcing. *Atmospheric Chemistry and Physics*, **2015**, 15, 1191-1204	6.8	59
151	Quantifying sources of black carbon in western North America using observationally based analysis and an emission tagging technique in the Community Atmosphere Model. *Atmospheric Chemistry and Physics*, **2015**, 15, 12805-12822	6.8	12
150	A New Method of Comparing Forcing Agents in Climate Models*. *Journal of Climate*, **2015**, 28, 8203-8218	4.4	14

149	Extreme Fire Season in California: A Glimpse Into the Future?. *Bulletin of the American Meteorological Society*, **2015**, 96, S5-S9	6.1	45
148	Parameterizing deep convection using the assumed probability density function method. *Geoscientific Model Development*, **2015**, 8, 1-19	6.3	36
147	Interannual to decadal climate variability of sea salt aerosols in the coupled climate model CESM1.0. *Journal of Geophysical Research D: Atmospheres*, **2015**, 120, 1502-1519	4.4	13
146	Short-term time step convergence in a climate model. *Journal of Advances in Modeling Earth Systems*, **2015**, 7, 215-225	7.1	31
145	Short-term modulation of Indian summer monsoon rainfall by West Asian dust. *Nature Geoscience*, **2014**, 7, 308-313	18.3	244
144	Integrating Cloud Processes in the Community Atmosphere Model, Version 5. *Journal of Climate*, **2014**, 27, 6821-6856	4.4	193
143	Climate engineering: exploring nuances and consequences of deliberately altering the Earth's energy budget. *Philosophical Transactions Series A, Mathematical, Physical, and Engineering Sciences*, **2014**, 372,	3	2
142	Using an explicit emission tagging method in global modeling of source-receptor relationships for black carbon in the Arctic: Variations, sources, and transport pathways. *Journal of Geophysical Research D: Atmospheres*, **2014**, 119, 12,888	4.4	72
141	A physically based framework for modeling the organic fractionation of sea spray aerosol from bubble film Langmuir equilibria. *Atmospheric Chemistry and Physics*, **2014**, 14, 13601-13629	6.8	93
140	Technical Note: On the use of nudging for aerosol–climate model intercomparison studies. *Atmospheric Chemistry and Physics*, **2014**, 14, 8631-8645	6.8	112
139	Assessing the CAM5 physics suite in the WRF-Chem model: implementation, resolution sensitivity, and a first evaluation for a regional case study. *Geoscientific Model Development*, **2014**, 7, 755-778	6.3	56
138	A multi-model assessment of regional climate disparities caused by solar geoengineering. *Environmental Research Letters*, **2014**, 9, 074013	6.2	77
137	Process-model simulations of cloud albedo enhancement by aerosols in the Arctic. *Philosophical Transactions Series A, Mathematical, Physical, and Engineering Sciences*, **2014**, 372,	3	15
136	Explicit feedback and the management of uncertainty in meeting climate objectives with solar geoengineering. *Environmental Research Letters*, **2014**, 9, 044006	6.2	30
135	Short ensembles: an efficient method for discerning climate-relevant sensitivities in atmospheric general circulation models. *Geoscientific Model Development*, **2014**, 7, 1961-1977	6.3	37
134	A sensitivity study on modeling black carbon in snow and its radiative forcing over the Arctic and Northern China. *Environmental Research Letters*, **2014**, 9, 064001	6.2	56
133	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
132	Climate model response from the Geoengineering Model Intercomparison Project (GeoMIP). *Journal of Geophysical Research D: Atmospheres*, **2013**, 118, 8320-8332	4.4	195

131	The Separate Physics and Dynamics Experiment (SPADE) framework for determining resolution awareness: A case study of microphysics. *Journal of Geophysical Research D: Atmospheres*, **2013**, 118, 9258-9276	4.4	12
130	The long-term policy context for solar radiation management. *Climatic Change*, **2013**, 121, 487-497	4.5	20
129	Sensitivity of remote aerosol distributions to representation of cloud-aerosol interactions in a global climate model **2013**,		5
128	A novel approach for determining source–receptor relationships in model simulations: a case study of black carbon transport in northern hemisphere winter. *Environmental Research Letters*, **2013**, 8, 024042	6.2	19
127	CGILS: Results from the first phase of an international project to understand the physical mechanisms of low cloud feedbacks in single column models. *Journal of Advances in Modeling Earth Systems*, **2013**, 5, 826-842	7.1	115
126	Numerical issues associated with compensating and competing processes in climate models: an example from ECHAM-HAM. *Geoscientific Model Development*, **2013**, 6, 861-874	6.3	18
125	The Mean Climate of the Community Atmosphere Model (CAM4) in Forced SST and Fully Coupled Experiments. *Journal of Climate*, **2013**, 26, 5150-5168	4.4	520
124	Sea spray geoengineering experiments in the geoengineering model intercomparison project (GeoMIP): Experimental design and preliminary results. *Journal of Geophysical Research D: Atmospheres*, **2013**, 118, 11,175-11,186	4.4	29
123	Radiative forcing of the direct aerosol effect from AeroCom Phase II simulations. *Atmospheric Chemistry and Physics*, **2013**, 13, 1853-1877	6.8	598
122	The role of circulation features on black carbon transport into the Arctic in the Community Atmosphere Model version 5 (CAM5). *Journal of Geophysical Research D: Atmospheres*, **2013**, 118, 4657-4669	4.4	56
121	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
120	Uncertainty quantification and parameter tuning in the CAM5 Zhang-McFarlane convection scheme and impact of improved convection on the global circulation and climate. *Journal of Geophysical Research D: Atmospheres*, **2013**, 118, 395-415	4.4	89
119	Sensitivity of remote aerosol distributions to representation of cloud–aerosol interactions in a global climate model. *Geoscientific Model Development*, **2013**, 6, 765-782	6.3	134
118	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
117	Fast and slow responses of the South Asian monsoon system to anthropogenic aerosols. *Geophysical Research Letters*, **2012**, 39,	4.9	95
116	Climate response of the South Asian monsoon system to anthropogenic aerosols. *Journal of Geophysical Research*, **2012**, 117, n/a-n/a		150
115	Aerosol optical depth increase in partly cloudy conditions. *Journal of Geophysical Research*, **2012**, 117, n/a-n/a		56
114	Ecosystem impacts of geoengineering: a review for developing a science plan. *Ambio*, **2012**, 41, 350-69	6.5	51

113	Toward a Minimal Representation of Aerosols in Climate Models: Comparative Decomposition of Aerosol Direct, Semidirect, and Indirect Radiative Forcing. *Journal of Climate*, **2012**, 25, 6461-6476	4.4	215
112	Climate Simulations with an Isentropic Finite-Volume Dynamical Core. *Journal of Climate*, **2012**, 25, 2843-2861	4.4	3
111	CAM-chem: description and evaluation of interactive atmospheric chemistry in the Community Earth System Model. *Geoscientific Model Development*, **2012**, 5, 369-411	6.3	519
110	The roles of cloud drop effective radius and LWP in determining rain properties in marine stratocumulus. *Geophysical Research Letters*, **2012**, 39, n/a-n/a	4.9	54
109	Representation of Arctic mixed-phase clouds and the Wegener-Bergeron-Findeisen process in climate models: Perspectives from a cloud-resolving study. *Journal of Geophysical Research*, **2011**, 116,		53
108	Direct and semidirect aerosol effects of southern African biomass burning aerosol. *Journal of Geophysical Research*, **2011**, 116,		93
107	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
106	The Community Climate System Model Version 4. *Journal of Climate*, **2011**, 24, 4973-4991	4.4	2037
105	Manipulating marine stratocumulus cloud amount and albedo: a process-modelling study of aerosol-cloud-precipitation interactions in response to injection of cloud condensation nuclei. *Atmospheric Chemistry and Physics*, **2011**, 11, 4237-4249	6.8	61
104	Technical fixes and climate change: optimizing for risks and consequences. *Environmental Research Letters*, **2010**, 5, 031001	6.2	2
103	Do biomass burning aerosols intensify drought in equatorial Asia during El Niño?. *Atmospheric Chemistry and Physics*, **2010**, 10, 3515-3528	6.8	77
102	An Evaluation of ENSO Asymmetry in the Community Climate System Models: A View from the Subsurface. *Journal of Climate*, **2009**, 22, 5933-5961	4.4	27
101	Impact of geoengineered aerosols on the troposphere and stratosphere. *Journal of Geophysical Research*, **2009**, 114,		125
100	Initiative to Improve Process Representation in Chemistry-Climate Models. *Eos*, **2009**, 90, 206-207	1.5	
99	Aerosol indirect effects general circulation model intercomparison and evaluation with satellite data. *Atmospheric Chemistry and Physics*, **2009**, 9, 8697-8717	6.8	356
98	Springtime warming and reduced snow cover from carbonaceous particles. *Atmospheric Chemistry and Physics*, **2009**, 9, 2481-2497	6.8	417
97	Geoengineering by cloud seeding: influence on sea ice and climate system. *Environmental Research Letters*, **2009**, 4, 045112	6.2	63
96	Global temperature stabilization via controlled albedo enhancement of low-level maritime clouds. *Philosophical Transactions Series A, Mathematical, Physical, and Engineering Sciences*, **2008**, 366, 3969-87	3	131

95	Exploring the geoengineering of climate using stratospheric sulfate aerosols: The role of particle size. *Geophysical Research Letters*, **2008**, 35,	4.9	136
94	Impact of the summer 2004 Alaska fires on top of the atmosphere clear-sky radiation fluxes. *Journal of Geophysical Research*, **2008**, 113,		28
93	Impact of small ice crystal assumptions on ice sedimentation rates in cirrus clouds and GCM simulations. *Geophysical Research Letters*, **2008**, 35,	4.9	93
92	Midlatitude Cyclone Compositing to Constrain Climate Model Behavior Using Satellite Observations. *Journal of Climate*, **2008**, 21, 5887-5903	4.4	39
91	Effects of Convective Momentum Transport on the Atmospheric Circulation in the Community Atmosphere Model, Version 3. *Journal of Climate*, **2008**, 21, 1487-1499	4.4	233
90	An overview of geoengineering of climate using stratospheric sulphate aerosols. *Philosophical Transactions Series A, Mathematical, Physical, and Engineering Sciences*, **2008**, 366, 4007-37	3	205
89	Present-day climate forcing and response from black carbon in snow. *Journal of Geophysical Research*, **2007**, 112,		898
88	Analysis of the CEPEX ozone data using a 3D chemistry-meteorology model. *Quarterly Journal of the Royal Meteorological Society*, **2007**, 125, 2987-3009	6.4	19
87	Impact of anthropogenic atmospheric nitrogen and sulfur deposition on ocean acidification and the inorganic carbon system. *Proceedings of the National Academy of Sciences of the United States of America*, **2007**, 104, 14580-5	11.5	280
86	Representation of Clouds and Precipitation Processes in the Community Atmosphere Model Version 3 (CAM3). *Journal of Climate*, **2006**, 19, 2184-2198	4.4	131
85	The Formulation and Atmospheric Simulation of the Community Atmosphere Model Version 3 (CAM3). *Journal of Climate*, **2006**, 19, 2144-2161	4.4	812
84	Change in atmospheric mineral aerosols in response to climate: Last glacial period, preindustrial, modern, and doubled carbon dioxide climates. *Journal of Geophysical Research*, **2006**, 111, n/a-n/a		325
83	Tropical Intraseasonal Variability in 14 IPCC AR4 Climate Models. Part I: Convective Signals. *Journal of Climate*, **2006**, 19, 2665-2690	4.4	614
82	Simulation of the Global Hydrological Cycle in the CCSM Community Atmosphere Model Version 3 (CAM3): Mean Features. *Journal of Climate*, **2006**, 19, 2199-2221	4.4	127
81	Characteristics of Atmospheric Transport Using Three Numerical Formulations for Atmospheric Dynamics in a Single GCM Framework. *Journal of Climate*, **2006**, 19, 2243-2266	4.4	55
80	A Characterization of Tropical Transient Activity in the CAM3 Atmospheric Hydrologic Cycle. *Journal of Climate*, **2006**, 19, 2222-2242	4.4	36
79	Assessing future nitrogen deposition and carbon cycle feedback using a multimodel approach: Analysis of nitrogen deposition. *Journal of Geophysical Research*, **2005**, 110,		221
78	Tracer Transport in Deep Convective Updrafts: Plume Ensemble versus Bulk Formulations. *Journals of the Atmospheric Sciences*, **2005**, 62, 2880-2894	2.1	50

77	Using the PARAGON Framework to Establish an Accurate, Consistent, and Cohesive Long-Term Aerosol Record. *Bulletin of the American Meteorological Society*, **2004**, 85, 1535-1548	6.1	5
76	The influence of large-scale wind power on global climate. *Proceedings of the National Academy of Sciences of the United States of America*, **2004**, 101, 16115-20	11.5	204
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