

# Robert Pincus

## List of Publications by Citations

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The third column is the impact factor (IF) of the journal, and the fourth column is the number of citations of the article.

80  
papers

7,944  
citations

39  
h-index

89  
g-index

102  
ext. papers

9,129  
ext. citations

6.8  
avg, IF

5.75  
L-index

#	Paper	IF	Citations
80	Atmospheric component of the MPI-M Earth System Model: ECHAM6. <i>Journal of Advances in Modeling Earth Systems</i> , <b>2013</b> , 5, 146-172	7.1	835
79	The Dynamical Core, Physical Parameterizations, and Basic Simulation Characteristics of the Atmospheric Component AM3 of the GFDL Global Coupled Model CM3. <i>Journal of Climate</i> , <b>2011</b> , 24, 3484-3519	4.4	768
78	Cloud and aerosol properties, precipitable water, and profiles of temperature and water vapor from MODIS. <i>IEEE Transactions on Geoscience and Remote Sensing</i> , <b>2003</b> , 41, 442-458	8.1	714
77	Clouds, circulation and climate sensitivity. <i>Nature Geoscience</i> , <b>2015</b> , 8, 261-268	18.3	470
76	COSP: Satellite simulation software for model assessment. <i>Bulletin of the American Meteorological Society</i> , <b>2011</b> , 92, 1023-1043	6.1	383
75	Tuning the climate of a global model. <i>Journal of Advances in Modeling Earth Systems</i> , <b>2012</b> , 4, n/a-n/a	7.1	279
74	Developments in the MPI-M Earth System Model version 1.2 (MPI-ESM1.2) and Its Response to Increasing CO. <i>Journal of Advances in Modeling Earth Systems</i> , <b>2019</b> , 11, 998-1038	7.1	258
73	A fast, flexible, approximate technique for computing radiative transfer in inhomogeneous cloud fields. <i>Journal of Geophysical Research</i> , <b>2003</b> , 108, n/a-n/a		247
72	Effect of precipitation on the albedo susceptibility of clouds in the marine boundary layer. <i>Nature</i> , <b>1994</b> , 372, 250-252	50.4	246
71	Impact of a New Radiation Package, McRad, in the ECMWF Integrated Forecasting System. <i>Monthly Weather Review</i> , <b>2008</b> , 136, 4773-4798	2.4	227
70	Exposing Global Cloud Biases in the Community Atmosphere Model (CAM) Using Satellite Observations and Their Corresponding Instrument Simulators. <i>Journal of Climate</i> , <b>2012</b> , 25, 5190-5207	4.4	215
69	Reconciling Simulated and Observed Views of Clouds: MODIS, ISCCP, and the Limits of Instrument Simulators. <i>Journal of Climate</i> , <b>2012</b> , 25, 4699-4720	4.4	215
68	Taking climate model evaluation to the next level. <i>Nature Climate Change</i> , <b>2019</b> , 9, 102-110	21.4	200
67	Comparing clouds and their seasonal variations in 10 atmospheric general circulation models with satellite measurements. <i>Journal of Geophysical Research</i> , <b>2005</b> , 110,		186
66	Are climate model simulations of clouds improving? An evaluation using the ISCCP simulator. <i>Journal of Geophysical Research D: Atmospheres</i> , <b>2013</b> , 118, 1329-1342	4.4	166
65	THE I3RC: Bringing Together the Most Advanced Radiative Transfer Tools for Cloudy Atmospheres. <i>Bulletin of the American Meteorological Society</i> , <b>2005</b> , 86, 1275-1294	6.1	157
64	Evaluating the present-day simulation of clouds, precipitation, and radiation in climate models. <i>Journal of Geophysical Research</i> , <b>2008</b> , 113,		153

63	Recommendations for diagnosing effective radiative forcing from climate models for CMIP6. <i>Journal of Geophysical Research D: Atmospheres</i> , <b>2016</b> , 121, 12,460-12,475	4.4	122
62	Unresolved spatial variability and microphysical process rates in large-scale models. <i>Journal of Geophysical Research</i> , <b>2000</b> , 105, 27059-27065		121
61	The Radiative Forcing Model Intercomparison Project (RFMIP): experimental protocol for CMIP6. <i>Geoscientific Model Development</i> , <b>2016</b> , 9, 3447-3460	6.3	120
60	On Constraining Estimates of Climate Sensitivity with Present-Day Observations through Model Weighting. <i>Journal of Climate</i> , <b>2011</b> , 24, 6092-6099	4.4	110
59	Effects of cloud horizontal inhomogeneity and drizzle on remote sensing of cloud droplet effective radius: Case studies based on large-eddy simulations. <i>Journal of Geophysical Research</i> , <b>2012</b> , 117, n/a-n/a		103
58	Cloudiness and Marine Boundary Layer Dynamics in the ASTEX Lagrangian Experiments. Part I: Synoptic Setting and Vertical Structure. <i>Journals of the Atmospheric Sciences</i> , <b>1995</b> , 52, 2707-2723	2.1	93
57	Large-eddy simulation of the transient and near-equilibrium behavior of precipitating shallow convection. <i>Journal of Advances in Modeling Earth Systems</i> , <b>2015</b> , 7, 1918-1937	7.1	91
56	Precipitation in Stratocumulus Clouds: Observational and Modeling Results. <i>Journals of the Atmospheric Sciences</i> , <b>1995</b> , 52, 2329-2352	2.1	89
55	The Monte Carlo Independent Column Approximation: an assessment using several global atmospheric models. <i>Quarterly Journal of the Royal Meteorological Society</i> , <b>2008</b> , 134, 1463-1478	6.4	75
54	Low-Cloud Feedbacks from Cloud-Controlling Factors: A Review. <i>Surveys in Geophysics</i> , <b>2017</b> , 38, 1307-1329	7.2	71
53	Computational Cost and Accuracy in Calculating Three-Dimensional Radiative Transfer: Results for New Implementations of Monte Carlo and SHDOM. <i>Journals of the Atmospheric Sciences</i> , <b>2009</b> , 66, 3131-3146	3.1	68
52	On the transitions in marine boundary layer cloudiness. <i>Atmospheric Chemistry and Physics</i> , <b>2010</b> , 10, 2377-2391	6.8	68
51	Effective radiative forcing and adjustments in CMIP6 models. <i>Atmospheric Chemistry and Physics</i> , <b>2020</b> , 20, 9591-9618	6.8	66
50	Committed warming inferred from observations. <i>Nature Climate Change</i> , <b>2017</b> , 7, 652-655	21.4	63
49	Albedo bias and the horizontal variability of clouds in subtropical marine boundary layers: Observations from ships and satellites. <i>Journal of Geophysical Research</i> , <b>1999</b> , 104, 6183-6191		58
48	Paths to accuracy for radiation parameterizations in atmospheric models. <i>Journal of Advances in Modeling Earth Systems</i> , <b>2013</b> , 5, 225-233	7.1	56
47	DART/CAM: An Ensemble Data Assimilation System for CESM Atmospheric Models. <i>Journal of Climate</i> , <b>2012</b> , 25, 6304-6317	4.4	55
46	Using Stochastically Generated Subcolumns to Represent Cloud Structure in a Large-Scale Model. <i>Monthly Weather Review</i> , <b>2006</b> , 134, 3644-3656	2.4	53

45	Overlap assumptions for assumed probability distribution function cloud schemes in large-scale models. <i>Journal of Geophysical Research</i> , <b>2005</b> , 110,		52
44	Monte Carlo Spectral Integration: a Consistent Approximation for Radiative Transfer in Large Eddy Simulations. <i>Journal of Advances in Modeling Earth Systems</i> , <b>2009</b> , 1, n/a-n/a	7.1	49
43	Radiative flux and forcing parameterization error in aerosol-free clear skies. <i>Geophysical Research Letters</i> , <b>2015</b> , 42, 5485-5492	4.9	46
42	ESD Reviews: Model dependence in multi-model climate ensembles: weighting, sub-selection and out-of-sample testing. <i>Earth System Dynamics</i> , <b>2019</b> , 10, 91-105	4.8	44
41	The Cloud Feedback Model Intercomparison Project Observational Simulator Package: Version 2. <i>Geoscientific Model Development</i> , <b>2018</b> , 11, 77-81	6.3	39
40	What Controls Stratocumulus Radiative Properties? Lagrangian Observations of Cloud Evolution. <i>Journals of the Atmospheric Sciences</i> , <b>1997</b> , 54, 2215-2236	2.1	36
39	Far-infrared surface emissivity and climate. <i>Proceedings of the National Academy of Sciences of the United States of America</i> , <b>2014</b> , 111, 16297-302	11.5	34
38	Internal Variability and Disequilibrium Confound Estimates of Climate Sensitivity From Observations. <i>Geophysical Research Letters</i> , <b>2018</b> , 45, 1595-1601	4.9	32
37	Parameter estimation using data assimilation in an atmospheric general circulation model: From a perfect toward the real world. <i>Journal of Advances in Modeling Earth Systems</i> , <b>2013</b> , 5, 58-70	7.1	31
36	The Accuracy of Determining Three-Dimensional Radiative Transfer Effects in Cumulus Clouds Using Ground-Based Profiling Instruments. <i>Journals of the Atmospheric Sciences</i> , <b>2005</b> , 62, 2284-2293	2.1	28
35	How might a statistical cloud scheme be coupled to a mass-flux convection scheme?. <i>Journal of Geophysical Research</i> , <b>2005</b> , 110,		26
34	Use of cloud radar observations for model evaluation: A probabilistic approach. <i>Journal of Geophysical Research</i> , <b>2004</b> , 109, n/a-n/a		26
33	EUREC&sup>4&lt;/sup>A. <i>Earth System Science Data</i> , <b>2021</b> , 13, 4067-4119	10.5	26
32	100 Years of Earth System Model Development. <i>Meteorological Monographs</i> , <b>2019</b> , 59, 12.1-12.66	5.7	24
31	Fast and slow shifts of the zonal-mean intertropical convergence zone in response to an idealized anthropogenic aerosol. <i>Journal of Advances in Modeling Earth Systems</i> , <b>2017</b> , 9, 870-892	7.1	24
30	Balancing Accuracy, Efficiency, and Flexibility in Radiation Calculations for Dynamical Models. <i>Journal of Advances in Modeling Earth Systems</i> , <b>2019</b> , 11, 3074-3089	7.1	21
29	Uncertainty in Cloud Optical Depth Estimates Made from Satellite Radiance Measurements. <i>Journal of Climate</i> , <b>1995</b> , 8, 1453-1462	4.4	20
28	Contributions of the ARM Program to Radiative Transfer Modeling for Climate and Weather Applications. <i>Meteorological Monographs</i> , <b>2016</b> , 57, 15.1-15.19	5.7	18

27	Can Fully Accounting for Clouds in Data Assimilation Improve Short-Term Forecasts by Global Models?. <i>Monthly Weather Review</i> , <b>2011</b> , 139, 946-957	2.4	17
26	The Representation of Tropospheric Water Vapor Over Low-Latitude Oceans in (Re-)analysis: Errors, Impacts, and the Ability to Exploit Current and Prospective Observations. <i>Surveys in Geophysics</i> , <b>2017</b> , 38, 1399-1423	7.6	13
25	Accelerating Radiation Computations for Dynamical Models With Targeted Machine Learning and Code Optimization. <i>Journal of Advances in Modeling Earth Systems</i> , <b>2020</b> , 12, e2020MS002226	7.1	13
24	The CLAW DSL <b>2018</b> ,		13
23	Wine, Place, and Identity in a Changing Climate. <i>Gastronomica</i> , <b>2003</b> , 3, 87-93	0.6	11
22	An Observational View of Relationships Between Moisture Aggregation, Cloud, and Radiative Heating Profiles. <i>Surveys in Geophysics</i> , <b>2017</b> , 38, 1237-1254	7.6	9
21	Multiyear Evaluations of a Cloud Model Using ARM Data. <i>Journals of the Atmospheric Sciences</i> , <b>2009</b> , 66, 2925-2936	2.1	9
20	Measurements from the RV & Ronald H. Brown and related platforms as part of the Atlantic Tradewind Ocean-Atmosphere Mesoscale Interaction Campaign (ATOMIC). <i>Earth System Science Data</i> , <b>2021</b> , 13, 1759-1790	10.5	9
19	The Radiative Forcing Model Intercomparison Project (RFMIP): Experimental Protocol for CMIP6 <b>2016</b> ,		9
18	Predicting atmospheric optical properties for radiative transfer computations using neural networks. <i>Philosophical Transactions Series A, Mathematical, Physical, and Engineering Sciences</i> , <b>2021</b> , 379, 20200095	3	9
17	Low-Cloud Feedbacks from Cloud-Controlling Factors: A Review. <i>Space Sciences Series of ISSI</i> , <b>2017</b> , 135-157	15.7	7
16	A New Paradigm for Diagnosing Contributions to Model Aerosol Forcing Error. <i>Geophysical Research Letters</i> , <b>2017</b> , 44, 12,004	4.9	6
15	JOANNE: Joint dropsonde Observations of the Atmosphere in tropical North atlantic meso-scale Environments. <i>Earth System Science Data</i> , <b>2021</b> , 13, 5253-5272	10.5	6
14	Benchmark Calculations of Radiative Forcing by Greenhouse Gases. <i>Journal of Geophysical Research D: Atmospheres</i> , <b>2020</b> , 125, e2020JD033483	4.4	6
13	Observations from the NOAA P-3 aircraft during ATOMIC. <i>Earth System Science Data</i> , <b>2021</b> , 13, 3281-3296	10.5	6
12	Impact of a spectral sampling technique for radiation on ECMWF weather forecasts. <i>Journal of Advances in Modeling Earth Systems</i> , <b>2014</b> , 6, 1288-1300	7.1	4
11	Effective radiative forcing and adjustments in CMIP6 models <b>2020</b> ,		3
10	JOANNE : Joint dropsonde Observations of the Atmosphere in tropical North atlantic meso-scale Environments		3

9	Model dependence in multi-model climate ensembles: weighting, sub-selection and out-of-sample testing <b>2018</b> ,		3
8	EUREC4A		2
7	Atmospheric radiative profiles during EUREC4A. <i>Earth System Science Data</i> , <b>2021</b> , 13, 617-630	10.5	2
6	On the transitions in marine boundary layer cloudiness		1
5	An Observational View of Relationships Between Moisture Aggregation, Cloud, and Radiative Heating Profiles. <i>Space Sciences Series of ISSI</i> , <b>2017</b> , 65-82	0.1	1
4	EUREC4A		1
3	Preface to the Special Issue ISSI Workshop on Shallow Clouds and Water Vapor, Circulation and Climate Sensitivity <i>Surveys in Geophysics</i> , <b>2017</b> , 38, 1171-1172	7.6	0
2	The Representation of Tropospheric Water Vapor Over Low-Latitude Oceans in (Re-)analysis: Errors, Impacts, and the Ability to Exploit Current and Prospective Observations. <i>Space Sciences Series of ISSI</i> , <b>2017</b> , 227-251	0.1	
1	Thank You to Our 2017 Peer Reviewers. <i>Journal of Advances in Modeling Earth Systems</i> , <b>2018</b> , 10, 1735-1735		