Karl E Taylor

List of Publications by Year
in descending order

106 papers	39,093 citations	23500 58 h-index	30848 102 g-index
115 all docs	115 docs citations	115 times ranked	26646 citing authors

#	Article	IF	Citations
1	Benchmarking performance changes in the simulation of extratropical modes of variability across CMIP generations. Journal of Climate, 2021, , 1-70.	1.2	6
2	Causes of Higher Climate Sensitivity in CMIP6 Models. Geophysical Research Letters, 2020, 47, e2019GL085782.	1.5	759
3	Documenting numerical experiments in support of the Coupled Model Intercomparison Project Phase 6 (CMIP6). Geoscientific Model Development, 2020, 13, 2149-2167.	1.3	26
4	Context for interpreting equilibrium climate sensitivity and transient climate response from the CMIP6 Earth system models. Science Advances, 2020, 6, eaba1981.	4.7	321
5	The CMIP6 Data Request (DREQ, version 01.00.31). Geoscientific Model Development, 2020, 13, 201-224.	1.3	22
6	Observations for Model Intercomparison Project (Obs4MIPs): status for CMIP6. Geoscientific Model Development, 2020, 13, 2945-2958.	1.3	17
7	Quantifying the agreement between observed and simulated extratropical modes of interannual variability. Climate Dynamics, 2019, 52, 4057-4089.	1.7	40
8	Requirements for a global data infrastructure in support of CMIP6. Geoscientific Model Development, 2018, 11, 3659-3680.	1.3	62
9	Highâ€Frequency Intermittency in Observed and Modelâ€Simulated Precipitation. Geophysical Research Letters, 2018, 45, 12,514.	1.5	16
10	Toward Standardized Data Sets for Climate Model Experimentation. Eos, 2018, 99, .	0.1	20
11	Fact Sheet for â€œConsistency of Modeled and Observed Temperature Trends in the Tropical Troposphereâ€, 2018, , 73-84.		1
12	Observed and Projected Changes to the Precipitation Annual Cycle. Journal of Climate, 2017, 30, 4983-4995.	1.2	46
13	Competing Influences of Anthropogenic Warming, ENSO, and Plant Physiology on Future Terrestrial Aridity. Journal of Climate, 2017, 30, 6883-6904.	1.2	20
14	CMIP5 Scientific Gaps and Recommendations for CMIP6. Bulletin of the American Meteorological Society, 2017, 98, 95-105.	1.7	207
15	A data model of the Climate and Forecast metadata conventions (CF-1.6) with a software implementation (cf-python v2.1). Geoscientific Model Development, 2017, 10, 4619-4646.	1.3	37
16	OMIP contribution to CMIP6: experimental and diagnostic protocol for the physical component of the Ocean Model Intercomparison Project. Geoscientific Model Development, 2016, 9, 3231-3296.	1.3	223
17	Towards improved and more routine Earth system model evaluation in CMIP. Earth System Dynamics, 2016, 7, 813-830.	2.7	74
18	Overview of the Coupled Model Intercomparison Project Phase 6 (CMIP6) experimental design and organization. Geoscientific Model Development, 2016, 9, 1937-1958.	1.3	5,303

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19	The Decadal Climate Prediction Project (DCPP) contribution to CMIP6. Geoscientific Model Development, 2016, 9, 3751-3777.	1.3	282
20	Moving beyond the Total Sea Ice Extent in Gauging Model Biases. Journal of Climate, 2016, 29, 8965-8987.	1.2	16
21	Quantifying the Sources of Intermodel Spread in Equilibrium Climate Sensitivity. Journal of Climate, 2016, 29, 513-524.	1.2	98
22	A More Powerful Reality Test for Climate Models. Eos, 2016, 97, .	0.1	50
23	Evolving Obs4MIPs to Support Phase 6 of the Coupled Model Intercomparison Project (CMIP6). Bulletin of the American Meteorological Society, 2015, 96, ES131-ES133.	1.7	27
24	External Influences on Modeled and Observed Cloud Trends. Journal of Climate, 2015, 28, 4820-4840.	1.2	37
25	Volcanic contribution to decadal changes in tropospheric temperature. Nature Geoscience, 2014, 7, 185-189.	5.4	364
26	Climate Model Intercomparisons: Preparing for the Next Phase. Eos, 2014, 95, 77-78.	0.1	129
27	Quantifying underestimates of long-term upper-ocean warming. Nature Climate Change, 2014, 4, 999-1005.	8.1	116
28	Quantifying components of aerosol-cloud-radiation interactions in climate models. Journal of Geophysical Research D: Atmospheres, 2014, 119, 7599-7615.	1.2	138
29	Identifying human influences on atmospheric temperature. Proceedings of the National Academy of Sciences of the United States of America, 2013, 110, 26-33.	3.3	117
30	Scale space methods for climate model analysis. Journal of Geophysical Research D: Atmospheres, 2013, 118, 5082-5097.	1.2	6
31	Documenting Climate Models and Their Simulations. Bulletin of the American Meteorological Society, 2013, 94, 623-627.	1.7	20
32	Contributions of Different Cloud Types to Feedbacks and Rapid Adjustments in CMIP5*. Journal of Climate, 2013, 26, 5007-5027.	1.2	235
33	Human and natural influences on the changing thermal structure of the atmosphere. Proceedings of the National Academy of Sciences of the United States of America, 2013, 110, 17235-17240.	3.3	84
34	Forcing, feedbacks and climate sensitivity in CMIP5 coupled atmosphereâ€ocean climate models. Geophysical Research Letters, 2012, 39, .	1.5	570
35	Human-induced global ocean warming onÂmultidecadal timescales. Nature Climate Change, 2012, 2, 524-529.	8.1	116
36	An Overview of CMIP5 and the Experiment Design. Bulletin of the American Meteorological Society, 2012, 93, 485-498.	1.7	11,443

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37	The Reproducibility of Observational Estimates of Surface and Atmospheric Temperature Change. Science, 2011, 334, 1232-1233.	6.0	28
38	Separating signal and noise in atmospheric temperature changes: The importance of timescale. Journal of Geophysical Research, 2011, 116, n/a-n/a.	3.3	149
39	The Geoengineering Model Intercomparison Project (GeoMIP). Atmospheric Science Letters, 2011, 12, 162-167.	0.8	314
40	Incorporating model quality information in climate change detection and attribution studies. Proceedings of the National Academy of Sciences of the United States of America, 2009, 106, 14778-14783.	3.3	156
41	Consistency of modelled and observed temperature trends in the tropical troposphere. International Journal of Climatology, 2008, 28, 1703-1722.	1.5	236
42	Performance metrics for climate models. Journal of Geophysical Research, 2008, 113, .	3.3	951
43	Evaluating the presentâ€day simulation of clouds, precipitation, and radiation in climate models. Journal of Geophysical Research, 2008, 113, .	3.3	187
44	Impact of geoengineering schemes on the global hydrological cycle. Proceedings of the National Academy of Sciences of the United States of America, 2008, 105, 7664-7669.	3.3	260
45	Identification of human-induced changes in atmospheric moisture content. Proceedings of the National Academy of Sciences of the United States of America, 2007, 104, 15248-15253.	3.3	271
46	Estimating Shortwave Radiative Forcing and Response in Climate Models. Journal of Climate, 2007, 20, 2530-2543.	1.2	157
47	Simulated and observed variability in ocean temperature and heat content. Proceedings of the National Academy of Sciences of the United States of America, 2007, 104, 10768-10773.	3.3	48
48	THE WCRP CMIP3 Multimodel Dataset: A New Era in Climate Change Research. Bulletin of the American Meteorological Society, 2007, 88, 1383-1394.	1.7	2,484
49	On the Validity of Climate Models. Eos, 2007, 88, 121.	0.1	0
50	Relationship between temperature and precipitable water changes over tropical oceans. Geophysical Research Letters, 2007, 34, .	1.5	67
51	Variability of ocean heat uptake: Reconciling observations and models. Journal of Geophysical Research, 2006, 111, .	3.3	43
52	Coupled Climate Model appraisal: A benchmark for future studies. Eos, 2006, 87, 185.	0.1	14
53	Krakatoa lives: The effect of volcanic eruptions on ocean heat content and thermal expansion. Geophysical Research Letters, 2006, 33, .	1.5	76
54	Climate Forcings and Climate Sensitivities Diagnosed from Coupled Climate Model Integrations. Journal of Climate, 2006, 19, 6181-6194.	1.2	136

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55	Krakatoa's signature persists in the ocean. Nature, 2006, 439, 675-675.	13.7	101
56	On the contribution of local feedback mechanisms to the range of climate sensitivity in two GCM ensembles. Climate Dynamics, 2006, 27, 17-38.	1.7	334
57	Forced and unforced ocean temperature changes in Atlantic and Pacific tropical cyclogenesis regions. Proceedings of the National Academy of Sciences of the United States of America, 2006, 103, 13905-13910.	3.3	145
58	Detecting and Attributing External Influences on the Climate System: A Review of Recent Advances. Journal of Climate, 2005, 18, 1291-1314.	1.2	198
59	Amplification of Surface Temperature Trends and Variability in the Tropical Atmosphere. Science, 2005, 309, 1551-1556.	6.0	267
60	Comment on â€œClimate forcing by the volcanic eruption of Mount Pinatuboâ€•by David H. Douglass and Robert S. Knox. Geophysical Research Letters, 2005, 32, .	1.5	11
61	Present and future surface climate in the western USA as simulated by 15 global climate models. Climate Dynamics, 2004, 23, 455-472.	1.7	55
62	Identification of anthropogenic climate change using a second-generation reanalysis. Journal of Geophysical Research, 2004, 109, n/a-n/a.	3.3	112
63	Coupled ocean-atmosphere climate simulations compared with simulations using prescribed sea surface temperature: effect of a â€œperfect oceanâ€. Global and Planetary Change, 2004, 41, 1-14.	1.6	9
64	High-resolution simulations of global climate, part 1: present climate. Climate Dynamics, 2003, 21, 371-390.	1.7	139
65	Behavior of tropopause height and atmospheric temperature in models, reanalyses, and observations: Decadal changes. Journal of Geophysical Research, 2003, 108, ACL 1-1.	3.3	185
66	Contributions of Anthropogenic and Natural Forcing to Recent Tropopause Height Changes. Science, 2003, 301, 479-483.	6.0	379
67	An overview of results from the Coupled Model Intercomparison Project. Global and Planetary Change, 2003, 37, 103-133.	1.6	305
68	Influence of Satellite Data Uncertainties on the Detection of Externally Forced Climate Change. Science, 2003, 300, 1280-1284.	6.0	68
69	How Can We Advance Our Weather and Climate Models as a Community?. Bulletin of the American Meteorological Society, 2002, 83, 431-434.	1.7	25
70	Limitations of the equivalent CO2approximation in climate change simulations. Journal of Geophysical Research, 2001, 106, 22593-22603.	3.3	9
71	Accounting for the effects of volcanoes and ENSO in comparisons of modeled and observed temperature trends. Journal of Geophysical Research, 2001, 106, 28033-28059.	3.3	98
72	Summarizing multiple aspects of model performance in a single diagram. Journal of Geophysical Research, 2001, 106, 7183-7192.	3.3	5,740

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73	The Community Climate System Model. Bulletin of the American Meteorological Society, 2001, 82, 2357-2376.	1.7	131
74	Interpreting Differential Temperature Trends at the Surface and in the Lower Troposphere. Science, 2000, 287, 1227-1232.	6.0	83
75	Statistical significance of trends and trend differences in layer-average atmospheric temperature time series. Journal of Geophysical Research, 2000, 105, 7337-7356.	3.3	552
76	Correlation approaches to detection. Geophysical Research Letters, 2000, 27, 2973-2976.	1.5	8
77	An Overview of the Results of the Atmospheric Model Intercomparison Project (AMIP I). Bulletin of the American Meteorological Society, 1999, 80, 29-55.	1.7	668
78	Uncertainties in observationally based estimates of temperature change in the free atmosphere. Journal of Geophysical Research, 1999, 104, 6305-6333.	3.3	136
79	Monsoon changes for 6000 years ago: Results of 18 simulations from the Paleoclimate Modeling Intercomparison Project (PMIP). Geophysical Research Letters, 1999, 26, 859-862.	1.5	374
80	Relative detectability of greenhouse-gas and aerosol climate change signals. Climate Dynamics, 1998, 14, 781-790.	1.7	22
81	The Potential Effect of GCM Uncertainties and Internal Atmospheric Variability on Anthropogenic Signal Detection. Journal of Climate, 1998, 11, 659-675.	1.2	10
82	Comparison of the seasonal change in cloud-radiative forcing from atmospheric general circulation models and satellite observations. Journal of Geophysical Research, 1997, 102, 16593-16603.	3.3	41
83	An assessment of the radiative effects of anthropogenic sulfate. Journal of Geophysical Research, 1997, 102, 3761-3778.	3.3	201
84	A search for human influences on the thermal structure of the atmosphere. Nature, 1996, 382, 39-46.	13.7	397
85	GCM evaluation of a mechanism for El NiÃ±o triggering by the El ChichÃ³n ash cloud. Geophysical Research Letters, 1995, 22, 2369-2372.	1.5	24
86	Towards the detection and attribution of an anthropogenic effect on climate. Climate Dynamics, 1995, 12, 77-100.	1.7	175
87	Response of the climate system to atmospheric aerosols and greenhouse gases. Nature, 1994, 369, 734-737.	13.7	296
88	Climate Models for the Study of Paleoclimates. , 1994, , 21-41.		2
89	The effect of horizontal resolution on ocean surface heat fluxes in the ECMWF model. Climate Dynamics, 1993, 9, 17-32.	1.7	14
90	Uncertainties in Carbon Dioxide Radiative Forcing in Atmospheric General Circulation Models. Science, 1993, 262, 1252-1255.	6.0	81

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91	An Analysis of Cloud Liquid Water Feedback and Global Climate Sensitivity in a General Circulation Model. Journal of Climate, 1992, 5, 907-919.	1.2	46
92	Intercomparison and interpretation of surface energy fluxes in atmospheric general circulation models. Journal of Geophysical Research, 1992, 97, 3711-3724.	3.3	81
93	Upper limit for sea ice albedo feedback contribution to global warming. Journal of Geophysical Research, 1991, 96, 9169-9174.	3.3	17
94	Interpretation of Snow-Climate Feedback as Produced by 17 General Circulation Models. Science, 1991, 253, 888-892.	6.0	171
95	Planktonic dimethylsulfide and cloud albedo: An estimate of the feedback response. Climatic Change, 1991, 18, 1-15.	1.7	29
96	Model test of CCNâ€cloud albedo climate forcing. Geophysical Research Letters, 1990, 17, 607-610.	1.5	25
97	Interpretation of Cloud-Climate Feedback as Produced by 14 Atmospheric General Circulation Models. Science, 1989, 245, 513-516.	6.0	460
98	Sulphate aerosols and climate. Nature, 1989, 340, 438-438.	13.7	11
99	An Analysis of the Biases in Traditional Cyclone Frequency Maps. Monthly Weather Review, 1986, 114, 1481-1490.	0.5	23
100	The response of the high-latitude thermosphere to geomagnetic substorms. Advances in Space Research, 1985, 5, 289-292.	1.2	6
101	A Vertical Finite-Difference Scheme for Hydrostatic and Nonhydrostatic Equations. Monthly Weather Review, 1984, 112, 1398-1402.	0.5	11
102	The Roles of Mean Meridional Motions and Large-Scale Eddies in Zonally Averaged Circulations. Journals of the Atmospheric Sciences, 1980, 37, 1-19.	0.6	26
103	Formulas for calculating available potential energy over uneven topography. Tellus, 1979, 31, 236-245.	0.4	6
104	Formulas for calculating available potential energy over uneven topography. Tellus, 1979, 31, 236-245.	0.4	16
105	The Influence of Subsurface Energy Storage on Seasonal Temperature Variations. Journal of Applied Meteorology, 1976, 15, 1129-1138.	1.1	24
106	Projected Effects of Increasing Concentrations of Carbon Dioxide and Trace Gases on Climate. ASA Special Publication, 0, , 1-17.	0.8	10