

Mark J Webb

List of Publications by Year in descending order

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Version: 2024-02-01

60
papers

10,288
citations

76196

40
h-index

133063

59
g-index

63
all docs

63
docs citations

63
times ranked

8571
citing authors

#	ARTICLE	IF	CITATIONS
1	Quantification of modelling uncertainties in a large ensemble of climate change simulations. <i>Nature</i> , 2004, 430, 768-772.	13.7	1,423
2	How Well Do We Understand and Evaluate Climate Change Feedback Processes?. <i>Journal of Climate</i> , 2006, 19, 3445-3482.	1.2	849
3	Clouds, circulation and climate sensitivity. <i>Nature Geoscience</i> , 2015, 8, 261-268.	5.4	647
4	Projected increase in continental runoff due to plant responses to increasing carbon dioxide. <i>Nature</i> , 2007, 448, 1037-1041.	13.7	570
5	Forcing, feedbacks and climate sensitivity in CMIP5 coupled atmosphere-ocean climate models. <i>Geophysical Research Letters</i> , 2012, 39, .	1.5	570
6	An Assessment of Earth's Climate Sensitivity Using Multiple Lines of Evidence. <i>Reviews of Geophysics</i> , 2020, 58, e2019RG000678.	9.0	498
7	COSP: Satellite simulation software for model assessment. <i>Bulletin of the American Meteorological Society</i> , 2011, 92, 1023-1043.	1.7	483
8	On the contribution of local feedback mechanisms to the range of climate sensitivity in two GCM ensembles. <i>Climate Dynamics</i> , 2006, 27, 17-38.	1.7	334
9	Towards quantifying uncertainty in transient climate change. <i>Climate Dynamics</i> , 2006, 27, 127-147.	1.7	317
10	Tropospheric Adjustment Induces a Cloud Component in CO2 Forcing. <i>Journal of Climate</i> , 2008, 21, 58-71.	1.2	272
11	The Dependence of Radiative Forcing and Feedback on Evolving Patterns of Surface Temperature Change in Climate Models. <i>Journal of Climate</i> , 2015, 28, 1630-1648.	1.2	272
12	Mechanisms for the land/sea warming contrast exhibited by simulations of climate change. <i>Climate Dynamics</i> , 2008, 30, 455-465.	1.7	268
13	A methodology for probabilistic predictions of regional climate change from perturbed physics ensembles. <i>Philosophical Transactions Series A, Mathematical, Physical, and Engineering Sciences</i> , 2007, 365, 1993-2028.	1.6	262
14	Comparing clouds and their seasonal variations in 10 atmospheric general circulation models with satellite measurements. <i>Journal of Geophysical Research</i> , 2005, 110, .	3.3	250
15	Contributions of Different Cloud Types to Feedbacks and Rapid Adjustments in CMIP5*. <i>Journal of Climate</i> , 2013, 26, 5007-5027.	1.2	235
16	Climate model errors, feedbacks and forcings: a comparison of perturbed physics and multi-model ensembles. <i>Climate Dynamics</i> , 2011, 36, 1737-1766.	1.7	233
17	The Cloud Feedback Model Intercomparison Project (CFMIP) contribution to CMIP6. <i>Geoscientific Model Development</i> , 2017, 10, 359-384.	1.3	186
18	A quantitative performance assessment of cloud regimes in climate models. <i>Climate Dynamics</i> , 2009, 33, 141-157.	1.7	160

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19	Origins of differences in climate sensitivity, forcing and feedback in climate models. <i>Climate Dynamics</i> , 2013, 40, 677-707.	1.7	159
20	Estimating Shortwave Radiative Forcing and Response in Climate Models. <i>Journal of Climate</i> , 2007, 20, 2530-2543.	1.2	157
21	Importance of the mixed-phase cloud distribution in the control climate for assessing the response of clouds to carbon dioxide increase: a multi-model study. <i>Climate Dynamics</i> , 2006, 27, 113-126.	1.7	156
22	CGILS: Results from the first phase of an international project to understand the physical mechanisms of low cloud feedbacks in single column models. <i>Journal of Advances in Modeling Earth Systems</i> , 2013, 5, 826-842.	1.3	140
23	Multivariate probabilistic projections using imperfect climate models part I: outline of methodology. <i>Climate Dynamics</i> , 2012, 38, 2513-2542.	1.7	126
24	Prospects for narrowing bounds on Earth's equilibrium climate sensitivity. <i>Earth's Future</i> , 2016, 4, 512-522.	2.4	123
25	Accounting for Changing Temperature Patterns Increases Historical Estimates of Climate Sensitivity. <i>Geophysical Research Letters</i> , 2018, 45, 8490-8499.	1.5	116
26	The Dependence of Global Cloud and Lapse Rate Feedbacks on the Spatial Structure of Tropical Pacific Warming. <i>Journal of Climate</i> , 2018, 31, 641-654.	1.2	109
27	Evaluating cloud systems in the Met Office global forecast model using simulated CloudSat radar reflectivities. <i>Journal of Geophysical Research</i> , 2008, 113, .	3.3	105
28	Quantifying uncertainty in changes in extreme event frequency in response to doubled CO ₂ using a large ensemble of GCM simulations. <i>Climate Dynamics</i> , 2006, 26, 489-511.	1.7	93
29	Dependency of global mean precipitation on surface temperature. <i>Geophysical Research Letters</i> , 2008, 35, .	1.5	93
30	Carbon dioxide induced stomatal closure increases radiative forcing via a rapid reduction in low cloud. <i>Geophysical Research Letters</i> , 2009, 36, .	1.5	84
31	Global-mean radiative feedbacks and forcing in atmosphere-only and coupled atmosphere-ocean climate change experiments. <i>Geophysical Research Letters</i> , 2014, 41, 4035-4042.	1.5	76
32	The impact of parametrized convection on cloud feedback. <i>Philosophical Transactions Series A, Mathematical, Physical, and Engineering Sciences</i> , 2015, 373, 20140414.	1.6	63
33	How accurately can the climate sensitivity to CO_2 be estimated from historical climate change?. <i>Climate Dynamics</i> , 2020, 54, 129-157.	1.7	63
34	Structural Similarities and Differences in Climate Responses to CO ₂ Increase between Two Perturbed Physics Ensembles. <i>Journal of Climate</i> , 2010, 23, 1392-1410.	1.2	62
35	The Relationship between Land-Ocean Surface Temperature Contrast and Radiative Forcing. <i>Journal of Climate</i> , 2011, 24, 3239-3256.	1.2	60
36	Global mean cloud feedbacks in idealized climate change experiments. <i>Geophysical Research Letters</i> , 2006, 33, .	1.5	58

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37	Frequency distributions of transient regional climate change from perturbed physics ensembles of general circulation model simulations. <i>Climate Dynamics</i> , 2006, 27, 357-375.	1.7	55
38	Cloud Adjustment and its Role in CO ₂ Radiative Forcing and Climate Sensitivity: A Review. <i>Surveys in Geophysics</i> , 2012, 33, 619-635.	2.1	53
39	Reliability of multi-model and structurally different single-model ensembles. <i>Climate Dynamics</i> , 2012, 39, 599-616.	1.7	49
40	Evaluation of a component of the cloud response to climate change in an intercomparison of climate models. <i>Climate Dynamics</i> , 2006, 26, 145-165.	1.7	47
41	Coupling between subtropical cloud feedback and the local hydrological cycle in a climate model. <i>Climate Dynamics</i> , 2013, 41, 1923-1939.	1.7	40
42	Quantitative evaluation of the seasonal variations in climate model cloud regimes. <i>Climate Dynamics</i> , 2013, 41, 2679-2696.	1.7	39
43	High cloud increase in a perturbed SST experiment with a global nonhydrostatic model including explicit convective processes. <i>Journal of Advances in Modeling Earth Systems</i> , 2014, 6, 571-585.	1.3	35
44	Interpretation of Factors Controlling Low Cloud Cover and Low Cloud Feedback Using a Unified Predictive Index. <i>Journal of Climate</i> , 2017, 30, 9119-9131.	1.2	35
45	Robustness, uncertainties, and emergent constraints in the radiative responses of stratocumulus cloud regimes to future warming. <i>Climate Dynamics</i> , 2016, 46, 3025-3039.	1.7	31
46	Regional Intensification of the Tropical Hydrological Cycle During ENSO. <i>Geophysical Research Letters</i> , 2018, 45, 4361-4370.	1.5	30
47	Tropical vertical temperature trends: A real discrepancy?. <i>Geophysical Research Letters</i> , 2007, 34, .	1.5	27
48	Sensitivity of an Earth system climate model to idealized radiative forcing. <i>Geophysical Research Letters</i> , 2012, 39, .	1.5	26
49	The Impact of Parameterized Convection on Climatological Precipitation in Atmospheric Global Climate Models. <i>Geophysical Research Letters</i> , 2018, 45, 3728-3736.	1.5	26
50	Stratospheric water vapour and high climate sensitivity in a version of the HadSM3 climate model. <i>Atmospheric Chemistry and Physics</i> , 2010, 10, 7161-7167.	1.9	23
51	Reliability and importance of structural diversity of climate model ensembles. <i>Climate Dynamics</i> , 2013, 41, 2745-2763.	1.7	23
52	The diurnal cycle of marine cloud feedback in climate models. <i>Climate Dynamics</i> , 2015, 44, 1419-1436.	1.7	18
53	Fixed Anvil Temperature Feedback: Positive, Zero, or Negative?. <i>Journal of Climate</i> , 2020, 33, 2719-2739.	1.2	11
54	Importance of instantaneous radiative forcing for rapid tropospheric adjustment. <i>Climate Dynamics</i> , 2014, 43, 1409-1421.	1.7	9

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55	The cloud radiative effect on the atmospheric energy budget and global mean precipitation. <i>Climate Dynamics</i> , 2015, 44, 2301-2325.	1.7	7
56	Interactions between Hydrological Sensitivity, Radiative Cooling, Stability, and Low-Level Cloud Amount Feedback. <i>Journal of Climate</i> , 2018, 31, 1833-1850.	1.2	6
57	Comparison of Cloud Response to CO2 Doubling in Two GCMs. <i>Scientific Online Letters on the Atmosphere</i> , 2008, 4, 29-32.	0.6	5
58	Testing a Physical Hypothesis for the Relationship Between Climate Sensitivity and Double-ITCZ Bias in Climate Models. <i>Journal of Advances in Modeling Earth Systems</i> , 2020, 12, e2019MS001999.	1.3	4
59	Continuous Structural Parameterization: A Proposed Method for Representing Different Model Parameterizations Within One Structure Demonstrated for Atmospheric Convection. <i>Journal of Advances in Modeling Earth Systems</i> , 2020, 12, e2020MS002085.	1.3	3
60	Cloud Adjustment and its Role in CO2 Radiative Forcing and Climate Sensitivity: A Review. <i>Space Sciences Series of ISSI</i> , 2011, , 287-303.	0.0	0