Mark J Webb

List of Publications by Year
in descending order

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Version: 2024-02-01

60 papers	10,288 citations	76326 40 h-index	133252 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. Nature, 2004, 430, 768-772.	27.8	1,423
2	How Well Do We Understand and Evaluate Climate Change Feedback Processes?. Journal of Climate, 2006, 19, 3445-3482.	3.2	849
3	Clouds, circulation and climate sensitivity. Nature Geoscience, 2015, 8, 261-268.	12.9	647
4	Projected increase in continental runoff due to plant responses to increasing carbon dioxide. Nature, 2007, 448, 1037-1041.	27.8	570
5	Forcing, feedbacks and climate sensitivity in CMIP5 coupled atmosphereâ€ocean climate models. Geophysical Research Letters, 2012, 39, .	4.0	570
6	An Assessment of Earth's Climate Sensitivity Using Multiple Lines of Evidence. Reviews of Geophysics, 2020, 58, e2019RG000678.	23.0	498
7	COSP: Satellite simulation software for model assessment. Bulletin of the American Meteorological Society, 2011, 92, 1023-1043.	3.3	483
8	On the contribution of local feedback mechanisms to the range of climate sensitivity in two GCM ensembles. Climate Dynamics, 2006, 27, 17-38.	3.8	334
9	Towards quantifying uncertainty in transient climate change. Climate Dynamics, 2006, 27, 127-147.	3.8	317
10	Tropospheric Adjustment Induces a Cloud Component in CO2 Forcing. Journal of Climate, 2008, 21, 58-71.	3.2	272
11	The Dependence of Radiative Forcing and Feedback on Evolving Patterns of Surface Temperature Change in Climate Models. Journal of Climate, 2015, 28, 1630-1648.	3.2	272
12	Mechanisms for the land/sea warming contrast exhibited by simulations of climate change. Climate Dynamics, 2008, 30, 455-465.	3.8	268
13	A methodology for probabilistic predictions of regional climate change from perturbed physics ensembles. Philosophical Transactions Series A, Mathematical, Physical, and Engineering Sciences, 2007, 365, 1993-2028.	3.4	262
14	Comparing clouds and their seasonal variations in 10 atmospheric general circulation models with satellite measurements. Journal of Geophysical Research, 2005, 110, .	3.3	250
15	Contributions of Different Cloud Types to Feedbacks and Rapid Adjustments in CMIP5*. Journal of Climate, 2013, 26, 5007-5027.	3.2	235
16	Climate model errors, feedbacks and forcings: a comparison of perturbed physics and multi-model ensembles. Climate Dynamics, 2011, 36, 1737-1766.	3.8	233
17	The Cloud Feedback Model Intercomparison Project (CFMIP) contribution to CMIP6. Geoscientific Model Development, 2017, 10, 359-384.	3.6	186
18	A quantitative performance assessment of cloud regimes in climate models. Climate Dynamics, 2009, 33, 141-157.	3.8	160

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19	Origins of differences in climate sensitivity, forcing and feedback in climate models. Climate Dynamics, 2013, 40, 677-707.	3.8	159
20	Estimating Shortwave Radiative Forcing and Response in Climate Models. Journal of Climate, 2007, 20, 2530-2543.	3.2	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. Climate Dynamics, 2006, 27, 113-126.	3.8	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. Journal of Advances in Modeling Earth Systems, 2013, 5, 826-842.	3.8	140
23	Multivariate probabilistic projections using imperfect climate models part I: outline of methodology. Climate Dynamics, 2012, 38, 2513-2542.	3.8	126
24	Prospects for narrowing bounds on Earth's equilibrium climate sensitivity. Earth's Future, 2016, 4, 512-522.	6.3	123
25	Accounting for Changing Temperature Patterns Increases Historical Estimates of Climate Sensitivity. Geophysical Research Letters, 2018, 45, 8490-8499.	4.0	116
26	The Dependence of Global Cloud and Lapse Rate Feedbacks on the Spatial Structure of Tropical Pacific Warming. Journal of Climate, 2018, 31, 641-654.	3.2	109
27	Evaluating cloud systems in the Met Office global forecast model using simulated CloudSat radar reflectivities. Journal of Geophysical Research, 2008, 113, .	3.3	105
28	Quantifying uncertainty in changes in extreme event frequency in response to doubled CO2 using a large ensemble of GCM simulations. Climate Dynamics, 2006, 26, 489-511.	3.8	93
29	Dependency of global mean precipitation on surface temperature. Geophysical Research Letters, 2008, 35, .	4.0	93
30	Carbon dioxide induced stomatal closure increases radiative forcing via a rapid reduction in low cloud. Geophysical Research Letters, 2009, 36, .	4.0	84
31	Global-mean radiative feedbacks and forcing in atmosphere-only and coupled atmosphere-ocean climate change experiments. Geophysical Research Letters, 2014, 41, 4035-4042.	4.0	76
32	The impact of parametrized convection on cloud feedback. Philosophical Transactions Series A, Mathematical, Physical, and Engineering Sciences, 2015, 373, 20140414.	3.4	63
33	How accurately can the climate sensitivity to $$hbox {CO}_{2}$$ be estimated from historical climate change?. Climate Dynamics, 2020, 54, 129-157.	3.8	63
34	Structural Similarities and Differences in Climate Responses to CO2 Increase between Two Perturbed Physics Ensembles. Journal of Climate, 2010, 23, 1392-1410.	3.2	62
35	The Relationship between Landâ€"Ocean Surface Temperature Contrast and Radiative Forcing. Journal of Climate, 2011, 24, 3239-3256.	3.2	60
36	Global mean cloud feedbacks in idealized climate change experiments. Geophysical Research Letters, 2006, 33, .	4.0	58

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37	Frequency distributions of transient regional climate change from perturbed physics ensembles of general circulation model simulations. Climate Dynamics, 2006, 27, 357-375.	3.8	55
38	Cloud Adjustment and its Role in CO2 Radiative Forcing and Climate Sensitivity: A Review. Surveys in Geophysics, 2012, 33, 619-635.	4.6	53
39	Reliability of multi-model and structurally different single-model ensembles. Climate Dynamics, 2012, 39, 599-616.	3.8	49
40	Evaluation of a component of the cloud response to climate change in an intercomparison of climate models. Climate Dynamics, 2006, 26, 145-165.	3.8	47
41	Coupling between subtropical cloud feedback and the local hydrological cycle in a climate model. Climate Dynamics, 2013, 41, 1923-1939.	3.8	40
42	Quantitative evaluation of the seasonal variations in climate model cloud regimes. Climate Dynamics, 2013, 41, 2679-2696.	3.8	39
43	High cloud increase in a perturbed SST experiment with a global nonhydrostatic model including explicit convective processes. Journal of Advances in Modeling Earth Systems, 2014, 6, 571-585.	3.8	35
44	Interpretation of Factors Controlling Low Cloud Cover and Low Cloud Feedback Using a Unified Predictive Index. Journal of Climate, 2017, 30, 9119-9131.	3.2	35
45	Robustness, uncertainties, and emergent constraints in the radiative responses of stratocumulus cloud regimes to future warming. Climate Dynamics, 2016, 46, 3025-3039.	3.8	31
46	Regional Intensification of the Tropical Hydrological Cycle During ENSO. Geophysical Research Letters, 2018, 45, 4361-4370.	4.0	30
47	Tropical vertical temperature trends: A real discrepancy?. Geophysical Research Letters, 2007, 34, .	4.0	27
48	Sensitivity of an Earth system climate model to idealized radiative forcing. Geophysical Research Letters, 2012, 39, .	4.0	26
49	The Impact of Parameterized Convection on Climatological Precipitation in Atmospheric Global Climate Models. Geophysical Research Letters, 2018, 45, 3728-3736.	4.0	26
50	Stratospheric water vapour and high climate sensitivity in a version of the HadSM3 climate model. Atmospheric Chemistry and Physics, 2010, 10, 7161-7167.	4.9	23
51	Reliability and importance of structural diversity of climate model ensembles. Climate Dynamics, 2013, 41, 2745-2763.	3.8	23
52	The diurnal cycle of marine cloud feedback in climate models. Climate Dynamics, 2015, 44, 1419-1436.	3.8	18
53	Fixed Anvil Temperature Feedback: Positive, Zero, or Negative?. Journal of Climate, 2020, 33, 2719-2739.	3.2	11
54	Importance of instantaneous radiative forcing for rapid tropospheric adjustment. Climate Dynamics, 2014, 43, 1409-1421.	3.8	9

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55	The cloud radiative effect on the atmospheric energy budget and global mean precipitation. Climate Dynamics, 2015, 44, 2301-2325.	3.8	7
56	Interactions between Hydrological Sensitivity, Radiative Cooling, Stability, and Low-Level Cloud Amount Feedback. Journal of Climate, 2018, 31, 1833-1850.	3.2	6
57	Comparison of Cloud Response to CO2 Doubling in Two GCMs. Scientific Online Letters on the Atmosphere, 2008, 4, 29-32.	1.4	5
58	Testing a Physical Hypothesis for the Relationship Between Climate Sensitivity and Doubleâ€ITCZ Bias in Climate Models. Journal of Advances in Modeling Earth Systems, 2020, 12, e2019MS001999.	3.8	4
59	Continuous Structural Parameterization: A Proposed Method for Representing Different Model Parameterizations Within One Structure Demonstrated for Atmospheric Convection. Journal of Advances in Modeling Earth Systems, 2020, 12, e2020MS002085.	3.8	3
60	Cloud Adjustment and its Role in CO2 Radiative Forcing and Climate Sensitivity: A Review. Space Sciences Series of ISSI, 2011, , 287-303.	0.0	0