Steven C Hardiman

List of Publications by Year
in descending order

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62 papers	7,284 citations	81900 39 h-index	114465 63 g-index
80 all docs	80 docs citations	80 times ranked	7675 citing authors

#	Article	IF	Citations
1	The HadGEM2-ES implementation of CMIP5 centennial simulations. Geoscientific Model Development, 2011, 4, 543-570.	3.6	803
2	The HadGEM2 family of Met Office Unified Model climate configurations. Geoscientific Model Development, 2011, 4, 723-757.	3.6	765
3	Stratospheric influence on tropospheric jet streams, storm tracks and surface weather. Nature Geoscience, 2015, 8, 433-440.	12.9	515
4	The Met Office Unified Model Global Atmosphere 6.0/6.1 and JULES Global Land 6.0/6.1 configurations. Geoscientific Model Development, 2017, 10, 1487-1520.	3.6	401
5	The Met Office Unified Model Global Atmosphere 7.0/7.1 and JULES Global Land 7.0 configurations. Geoscientific Model Development, 2019, 12, 1909-1963.	3.6	372
6	Defining Sudden Stratospheric Warmings. Bulletin of the American Meteorological Society, 2015, 96, 1913-1928.	3.3	327
7	Review of the global models used within phase 1 of the Chemistryâ€“Climate Model Initiative (CCMI). Geoscientific Model Development, 2017, 10, 639-671.	3.6	277
8	On the lack of stratospheric dynamical variability in lowâ€top versions of the CMIP5 models. Journal of Geophysical Research D: Atmospheres, 2013, 118, 2494-2505.	3.3	268
9	Multi-model assessment of stratospheric ozone return dates and ozone recovery in CCMVal-2 models. Atmospheric Chemistry and Physics, 2010, 10, 9451-9472.	4.9	215
10	Multimodel assessment of the upper troposphere and lower stratosphere: Tropics and global trends. Journal of Geophysical Research, 2010, 115, .	3.3	171
11	A lagged response to the 11 year solar cycle in observed winter Atlantic/European weather patterns. Journal of Geophysical Research D: Atmospheres, 2013, 118, 13,405.	3.3	154
12	The Met Office Unified Model Global Atmosphere 4.0 and JULES Global Land 4.0 configurations. Geoscientific Model Development, 2014, 7, 361-386.	3.6	154
13	Review of the formulation of presentâ€generation stratospheric chemistryâ€climate models and associated external forcings. Journal of Geophysical Research, 2010, 115, .	3.3	150
14	Multimodel climate and variability of the stratosphere. Journal of Geophysical Research, 2011, 116, .	3.3	139
15	Climate change projections and stratosphereâ€“troposphere interaction. Climate Dynamics, 2012, 38, 2089-2097.	3.8	137
16	Northern winter climate change: Assessment of uncertainty in CMIP5 projections related to stratosphere-troposphere coupling. Journal of Geophysical Research D: Atmospheres, 2014, 119, 7979-7998.	3.3	131
17	Estimates of ozone return dates from Chemistry-Climate Model Initiative simulations. Atmospheric Chemistry and Physics, 2018, 18, 8409-8438.	4.9	128
18	The Dynamical Response to Snow Cover Perturbations in a Large Ensemble of Atmospheric GCM Integrations. Journal of Climate, 2009, 22, 1208-1222.	3.2	113

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19	Atmospheric Response to Arctic and Antarctic Sea Ice: The Importance of Oceanâ€“Atmosphere Coupling and the Background State. Journal of Climate, 2017, 30, 4547-4565.	3.2	110
20	Critical Southern Ocean climate model biases traced to atmospheric model cloud errors. Nature Communications, 2018, 9, 3625.	12.8	109
21	Stratosphereâ€troposphere coupling and annular mode variability in chemistryâ€climate models. Journal of Geophysical Research, 2010, 115, .	3.3	107
22	The Brewerâ€“Dobson circulation inferred from ERAâ€Interim. Quarterly Journal of the Royal Meteorological Society, 2012, 138, 878-888.	2.7	98
23	Historical Simulations With HadGEM3â€GC3.1 for CMIP6. Journal of Advances in Modeling Earth Systems, 2020, 12, e2019MS001995.	3.8	84
24	Implementation of U.K. Earth System Models for CMIP6. Journal of Advances in Modeling Earth Systems, 2020, 12, e2019MS001946.	3.8	83
25	Investigating the ability of general circulation models to capture the effects of Eurasian snow cover on winter climate. Journal of Geophysical Research, 2008, 113, .	3.3	80
26	Decline and recovery of total column ozone using a multimodel time series analysis. Journal of Geophysical Research, 2010, 115, .	3.3	74
27	Improved predictability of the troposphere using stratospheric final warmings. Journal of Geophysical Research, 2011, 116, .	3.3	70
28	Earth System Model Evaluation Tool (ESMValTool) v2.0 â€“ an extended set of large-scale diagnostics for quasi-operational and comprehensive evaluation of Earth system models in CMIP. Geoscientific Model Development, 2020, 13, 3383-3438.	3.6	69
29	Robust but weak winter atmospheric circulation response to future Arctic sea ice loss. Nature Communications, 2022, 13, 727.	12.8	67
30	Multimodel assessment of the factors driving stratospheric ozone evolution over the 21st century. Journal of Geophysical Research, 2010, 115, .	3.3	66
31	The morphology of the Brewer-Dobson circulation and its response to climate change in CMIP5 simulations. Quarterly Journal of the Royal Meteorological Society, 2014, 140, 1958-1965.	2.7	57
32	The Impact of Strong El NiÃ±o and La NiÃ±a Events on the North Atlantic. Geophysical Research Letters, 2019, 46, 2874-2883.	4.0	56
33	Impacts of climate change, ozone recovery, and increasing methane on surface ozone and the tropospheric oxidizing capacity. Journal of Geophysical Research D: Atmospheres, 2013, 118, 1028-1041.	3.3	55
34	Stratospheric Variability in Twentieth-Century CMIP5 Simulations of the Met Office Climate Model: High Top versus Low Top. Journal of Climate, 2013, 26, 1595-1606.	3.2	54
35	Skillful Seasonal Prediction of the Southern Annular Mode and Antarctic Ozone. Journal of Climate, 2014, 27, 7462-7474.	3.2	53
36	Chemistryâ€climate model simulations of spring Antarctic ozone. Journal of Geophysical Research, 2010, 115, .	3.3	51

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37	Processes Controlling Tropical Tropopause Temperature and Stratospheric Water Vapor in Climate Models. Journal of Climate, 2015, 28, 6516-6535.	3.2	47
38	The Effect of Climate Change on the Variability of the Northern Hemisphere Stratospheric Polar Vortex. Journals of the Atmospheric Sciences, 2012, 69, 2608-2618.	1.7	43
39	Multimodel estimates of atmospheric lifetimes of longâ€lived ozoneâ€depleting substances: Present and future. Journal of Geophysical Research D: Atmospheres, 2014, 119, 2555-2573.	3.3	42
40	Possible impacts of a future grand solar minimum on climate: Stratospheric and global circulation changes. Journal of Geophysical Research D: Atmospheres, 2015, 120, 9043-9058.	3.3	41
41	No robust evidence of future changes in major stratospheric sudden warmings: a multi-model assessment from CCMI. Atmospheric Chemistry and Physics, 2018, 18, 11277-11287.	4.9	41
42	Predictability of European winter 2019/20: Indian Ocean dipole impacts on the <scp>NAO</scp>. Atmospheric Science Letters, 2020, 21, e1005.	1.9	40
43	Tropospheric jet response to Antarctic ozone depletion: An update with Chemistry-Climate Model Initiative (CCMI) models. Environmental Research Letters, 2018, 13, 054024.	5.2	38
44	The Climatology of the Middle Atmosphere in a Vertically Extended Version of the Met Officeâ€™s Climate Model. Part I: Mean State. Journals of the Atmospheric Sciences, 2010, 67, 1509-1525.	1.7	34
45	The Met Office HadGEM3-ES chemistryâ€“climate model: evaluation of stratospheric dynamics and its impact on ozone. Geoscientific Model Development, 2017, 10, 1209-1232.	3.6	34
46	The asymmetric response of Yangtze river basin summer rainfall to El NiÃ±o/La NiÃ±a. Environmental Research Letters, 2018, 13, 024015.	5.2	27
47	Deriving Global OH Abundance and Atmospheric Lifetimes for Longâ€Lived Gases: A Search for CH₃CCl₃ Alternatives. Journal of Geophysical Research D: Atmospheres, 2017, 122, 11,914.	3.3	26
48	The Brewerâ€“Dobson circulation in CMIP6. Atmospheric Chemistry and Physics, 2021, 21, 13571-13591.	4.9	25
49	Long-range prediction and the stratosphere. Atmospheric Chemistry and Physics, 2022, 22, 2601-2623.	4.9	24
50	Dynamical sensitivity of the stratospheric circulation and downward influence of upper level perturbations. Journal of Geophysical Research, 2008, 113, .	3.3	21
51	The Impact of Prescribed Ozone in Climate Projections Run With HadGEM3â€GC3.1. Journal of Advances in Modeling Earth Systems, 2019, 11, 3443-3453.	3.8	20
52	A note on forced versus internal variability of the stratosphere. Geophysical Research Letters, 2007, 34, .	4.0	19
53	Using Different Formulations of the Transformed Eulerian Mean Equations and Eliassenâ€“Palm Diagnostics in General Circulation Models. Journals of the Atmospheric Sciences, 2010, 67, 1983-1995.	1.7	19
54	What chance of a sudden stratospheric warming in the southern hemisphere?. Environmental Research Letters, 2020, 15, 104038.	5.2	18

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55	Sensitivity of GCM tropical middle atmosphere variability and climate to ozone and parameterized gravity wave changes. Journal of Geophysical Research, 2010, 115, .	3.3	16
56	The influence of dynamical variability on the observed Brewerâ€Dobson circulation trend. Geophysical Research Letters, 2017, 44, 2885-2892.	4.0	16
57	Skilful Realâ€Time Seasonal Forecasts of the Dry Northern European Summer 2018. Geophysical Research Letters, 2019, 46, 12368-12376.	4.0	16
58	The nature of Arctic polar vortices in chemistryâ€“climate models. Quarterly Journal of the Royal Meteorological Society, 2012, 138, 1681-1691.	2.7	14
59	Predictability of European Winters 2017/2018 and 2018/2019: Contrasting influences from the Tropics and stratosphere. Atmospheric Science Letters, 2021, 22, e1009.	1.9	14
60	Predictability of European winter 2016/2017. Atmospheric Science Letters, 2018, 19, e868.	1.9	10
61	Subseasonal Vacillations in the Winter Stratosphere. Geophysical Research Letters, 2020, 47, e2020GL087766.	4.0	8
62	The Life Cycle and Variability of Antarctic Weak Polar Vortex Events. Journal of Climate, 2022, 35, 2075-2092.	3.2	4