Steven J Woolnough

List of Publications by Year
in descending order

65 papers	3,403 citations	172457 29 h-index	144013 57 g-index
75 all docs	75 docs citations	75 times ranked	3183 citing authors

#	Article	IF	Citations
1	Vertical structure and physical processes of the Maddenâ€Julian oscillation: Exploring key model physics in climate simulations. Journal of Geophysical Research D: Atmospheres, 2015, 120, 4718-4748.	3.3	332
2	The Relationship between Convection and Sea Surface Temperature on Intraseasonal Timescales. Journal of Climate, 2000, 13, 2086-2104.	3.2	241
3	Atmosphereâ€ocean coupled processes in the Maddenâ€Julian oscillation. Reviews of Geophysics, 2015, 53, 1099-1154.	23.0	206
4	The role of the ocean in the Maddenâ€“Julian Oscillation: Implications for MJO prediction. Quarterly Journal of the Royal Meteorological Society, 2007, 133, 117-128.	2.7	175
5	Modeling Diurnal and Intraseasonal Variability of the Ocean Mixed Layer. Journal of Climate, 2005, 18, 1190-1202.	3.2	169
6	Organization of tropical convection in a GCM with varying vertical resolution; implications for the simulation of the Madden-Julian Oscillation. Climate Dynamics, 2001, 17, 777-793.	3.8	125
7	Current and Emerging Developments in Subseasonal to Decadal Prediction. Bulletin of the American Meteorological Society, 2020, 101, E869-E896.	3.3	116
8	Impact of resolving the diurnal cycle in an oceanâ€“atmosphere GCM. Part 1: a diurnally forced OGCM. Climate Dynamics, 2007, 29, 575-590.	3.8	104
9	Modelling the diurnal cycle of tropical convection across the â€˜grey zoneâ€™. Quarterly Journal of the Royal Meteorological Society, 2014, 140, 491-499.	2.7	99
10	Impact of resolving the diurnal cycle in an oceanâ€“atmosphere GCM. Part 2: A diurnally coupled CGCM. Climate Dynamics, 2008, 31, 909-925.	3.8	97
11	Complex picture for likelihood of ENSO-driven flood hazard. Nature Communications, 2017, 8, 14796.	12.8	91
12	The Effects of Explicit versus Parameterized Convection on the MJO in a Large-Domain High-Resolution Tropical Case Study. Part I: Characterization of Large-Scale Organization and Propagation*. Journals of the Atmospheric Sciences, 2013, 70, 1342-1369.	1.7	88
13	The sensitivity of convective aggregation to diabatic processes in idealized radiativeâ€convective equilibrium simulations. Journal of Advances in Modeling Earth Systems, 2016, 8, 166-195.	3.8	87
14	Precipitation distributions for explicit versus parametrized convection in a largeâ€domain highâ€resolution tropical case study. Quarterly Journal of the Royal Meteorological Society, 2012, 138, 1692-1708.	2.7	79
15	The organization of tropical convection by intraseasonal sea surface temperature anomalies. Quarterly Journal of the Royal Meteorological Society, 2001, 127, 887-907.	2.7	70
16	The resolution sensitivity of the South Asian monsoon and Indo-Pacific in a global 0.35Â° AGCM. Climate Dynamics, 2016, 46, 807-831.	3.8	68
17	Diagnosing ocean feedbacks to the MJO: SSTâ€modulated surface fluxes and the moist static energy budget. Journal of Geophysical Research D: Atmospheres, 2016, 121, 8350-8373.	3.3	64
18	Vertical structure and physical processes of the Maddenâ€Julian oscillation: Linking hindcast fidelity to simulated diabatic heating and moistening. Journal of Geophysical Research D: Atmospheres, 2015, 120, 4690-4717.	3.3	63

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19	The role of airâ€“sea coupling in the simulation of the Maddenâ€“Julian oscillation in the Hadley Centre model. Quarterly Journal of the Royal Meteorological Society, 2014, 140, 2272-2286.	2.7	62
20	Using a caseâ€study approach to improve the Maddenâ€“Julian oscillation in the Hadley Centre model. Quarterly Journal of the Royal Meteorological Society, 2014, 140, 2491-2505.	2.7	61
21	ENSO Modulation of MJO Teleconnections to the North Atlantic and Europe. Geophysical Research Letters, 2019, 46, 13535-13545.	4.0	60
22	Vertical structure and physical processes of the Maddenâ€Julian oscillation: Synthesis and summary. Journal of Geophysical Research D: Atmospheres, 2015, 120, 4671-4689.	3.3	58
23	The effect of increased convective entrainment on Asian monsoon biases in the MetUM general circulation model. Quarterly Journal of the Royal Meteorological Society, 2015, 141, 311-326.	2.7	56
24	On the drivers of interâ€annual and decadal rainfall variability in Queensland, Australia. International Journal of Climatology, 2013, 33, 2413-2430.	3.5	54
25	The Impact of Finer-Resolution Airâ€“Sea Coupling on the Intraseasonal Oscillation of the Indian Monsoon. Journal of Climate, 2011, 24, 2451-2468.	3.2	53
26	Intercomparison of methods of coupling between convection and largeâ€scale circulation: 1. Comparison over uniform surface conditions. Journal of Advances in Modeling Earth Systems, 2015, 7, 1576-1601.	3.8	46
27	MetUM-GOML1: a near-globally coupled atmosphereâ€“ocean-mixed-layer model. Geoscientific Model Development, 2015, 8, 363-379.	3.6	45
28	Linking extreme precipitation in Southeast Asia to equatorial waves. Quarterly Journal of the Royal Meteorological Society, 2020, 146, 665-684.	2.7	43
29	An assessment of Indian monsoon seasonal forecasts and mechanisms underlying monsoon interannual variability in the Met Office GloSea5-GC2 system. Climate Dynamics, 2017, 48, 1447-1465.	3.8	37
30	Subseasonal Precipitation Prediction for Africa: Forecast Evaluation and Sources of Predictability. Weather and Forecasting, 2021, 36, 265-284.	1.4	35
31	Modelling suppressed and active convection. Comparing a numerical weather prediction, cloudâ€resolving and singleâ€column model. Quarterly Journal of the Royal Meteorological Society, 2007, 133, 1087-1100.	2.7	34
32	The Diurnal Cycle of Convection and Atmospheric Tides in an Aquaplanet GCM. Journals of the Atmospheric Sciences, 2004, 61, 2559-2573.	1.7	33
33	Abrupt Stratospheric Vortex Weakening Associated With North Atlantic Anticyclonic Wave Breaking. Journal of Geophysical Research D: Atmospheres, 2019, 124, 8563-8575.	3.3	29
34	The representation of the West African monsoon vertical cloud structure in the Met Office Unified Model: an evaluation with CloudSat. Quarterly Journal of the Royal Meteorological Society, 2015, 141, 3312-3324.	2.7	28
35	The northern hemisphere circumglobal teleconnection in a seasonal forecast model and its relationship to European summer forecast skill. Climate Dynamics, 2019, 52, 3759-3771.	3.8	28
36	The effect of Arabian Sea optical properties on SST biases and the South Asian summer monsoon in a coupled GCM. Climate Dynamics, 2012, 39, 811-826.	3.8	25

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37	Cloud-Resolving Model Simulations with One- and Two-Way Couplings via the Weak Temperature Gradient Approximation. Journals of the Atmospheric Sciences, 2012, 69, 3683-3699.	1.7	24
38	Indian summer monsoon onset forecast skill in the UK Met Office initialized coupled seasonal forecasting system (GloSea5-GC2). Climate Dynamics, 2019, 52, 6599-6617.	3.8	24
39	The Impact of Airâ€Sea Interactions on the Representation of Tropical Precipitation Extremes. Journal of Advances in Modeling Earth Systems, 2018, 10, 550-559.	3.8	22
40	Identifying causes of Western Pacific ITCZ drift in ECMWF System 4 hindcasts. Climate Dynamics, 2018, 50, 939-954.	3.8	22
41	Modelling convective processes during the suppressed phase of a Maddenâ€“Julian oscillation: Comparing singleâ€column models with cloudâ€resolving models. Quarterly Journal of the Royal Meteorological Society, 2010, 136, 333-353.	2.7	20
42	Intercomparison of methods of coupling between convection and largeâ€scale circulation: 2. Comparison over nonuniform surface conditions. Journal of Advances in Modeling Earth Systems, 2016, 8, 387-405.	3.8	20
43	The Effects of Explicit versus Parameterized Convection on the MJO in a Large-Domain High-Resolution Tropical Case Study. Part II: Processes Leading to Differences in MJO Development. Journals of the Atmospheric Sciences, 2015, 72, 2719-2743.	1.7	19
44	Modelling suppressed and active convection: Comparisons between three global atmospheric models. Quarterly Journal of the Royal Meteorological Society, 2008, 134, 1881-1896.	2.7	18
45	Dynamical mechanisms linking Indian monsoon precipitation and the circumglobal teleconnection. Climate Dynamics, 2021, 57, 2615-2636.	3.8	16
46	The African SWIFT Project: Growing Science Capability to Bring about a Revolution in Weather Prediction. Bulletin of the American Meteorological Society, 2022, 103, E349-E369.	3.3	16
47	The Role of the Cloud Radiative Effect in the Sensitivity of the Intertropical Convergence Zone to Convective Mixing. Journal of Climate, 2018, 31, 6821-6838.	3.2	14
48	Configuration and hindcast quality assessment of a Brazilian global subâ€seasonal prediction system. Quarterly Journal of the Royal Meteorological Society, 2020, 146, 1067-1084.	2.7	13
49	Subseasonal Prediction Performance for Austral Summer South American Rainfall. Weather and Forecasting, 2021, 36, 147-169.	1.4	12
50	The Madden-Julian Oscillation. , 2019, , 93-117.		11
51	Isolating the Effects of Moisture Entrainment on Convectively Coupled Equatorial Waves in an Aquaplanet GCM. Journals of the Atmospheric Sciences, 2018, 75, 3139-3157.	1.7	9
52	Memory Properties in Cloudâ€Resolving Simulations of the Diurnal Cycle of Deep Convection. Journal of Advances in Modeling Earth Systems, 2020, 12, e2019MS001897.	3.8	8
53	The links between the Madden-Julian Oscillation and European weather regimes. Theoretical and Applied Climatology, 2020, 141, 567-586.	2.8	8
54	Beyond El NiÃ±o: Unsung climate modes drive African floods. Weather and Climate Extremes, 2021, 33, 100345.	4.1	8

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55	Using the Weakâ€Temperature Gradient Approximation to Evaluate Parameterizations: An Example of the Transition From Suppressed to Active Convection. Journal of Advances in Modeling Earth Systems, 2017, 9, 2350-2367.	3.8	7
56	Evaluation of the Bulk Mass Flux Formulation Using Large-Eddy Simulations. Journals of the Atmospheric Sciences, 2020, 77, 2115-2137.	1.7	7
57	Representation of the Scandinaviaâ€"Greenland pattern and its relationship with the polar vortex in S2S forecast models. Quarterly Journal of the Royal Meteorological Society, 2020, 146, 4083-4098.	2.7	6
58	Weather patterns in Southeast Asia: Relationship with tropical variability and heavy precipitation. Quarterly Journal of the Royal Meteorological Society, 2022, 148, 747-769.	2.7	6
59	Transition from Suppressed to Active Convection Modulated by a Weak Temperature Gradientâ€"Derived Large-Scale Circulation. Journals of the Atmospheric Sciences, 2015, 72, 834-853.	1.7	5
60	How Do Stratospheric Perturbations Influence North American Weather Regime Predictions?. Journal of Climate, 2022, 35, 5915-5932.	3.2	4
61	A perspective for advancing climate prediction services in Brazil. Climate Resilience and Sustainability, 0, , .	2.3	2
62	The Implications of an Idealized Large-Scale Circulation for Mechanical Work Done by Tropical Convection. Journals of the Atmospheric Sciences, 2018, 75, 2533-2547.	1.7	1
63	A climatology of tropical wind shear produced by clustering wind profiles from the Met Office Unified Model (GA7.0). Geoscientific Model Development, 2021, 14, 4035-4049.	3.6	1
64	The Effect of Atmosphereâ€Ocean Coupling on the Sensitivity of the ITCZ to Convective Mixing. Journal of Advances in Modeling Earth Systems, 2020, 12, e2020MS002322.	3.8	1
65	Vertical Structure and Diabatic Processes of the Madden-Julian Oscillation. World Scientific Series on Asia-Pacific Weather and Climate, 2017, , 161-172.	0.2	0