Michael Winton

List of Publications by Year
in descending order

70 papers	10,497 citations	76326 40 h-index	95266 68 g-index
70 all docs	70 docs citations	70 times ranked	9658 citing authors

#	Article	IF	Citations
1	GFDL's CM2 Global Coupled Climate Models. Part I: Formulation and Simulation Characteristics. Journal of Climate, 2006, 19, 643-674.	3.2	1,431
2	GFDLâ€™s ESM2 Global Coupled Climateâ€“Carbon Earth System Models. Part I: Physical Formulation and Baseline Simulation Characteristics. Journal of Climate, 2012, 25, 6646-6665.	3.2	972
3	The Dynamical Core, Physical Parameterizations, and Basic Simulation Characteristics of the Atmospheric Component AM3 of the GFDL Global Coupled Model CM3. Journal of Climate, 2011, 24, 3484-3519.	3.2	887
4	Dominance of the Southern Ocean in Anthropogenic Carbon and Heat Uptake in CMIP5 Models. Journal of Climate, 2015, 28, 862-886.	3.2	432
5	Probing the Fast and Slow Components of Global Warming by Returning Abruptly to Preindustrial Forcing. Journal of Climate, 2010, 23, 2418-2427.	3.2	383
6	A Reformulated Three-Layer Sea Ice Model. Journal of Atmospheric and Oceanic Technology, 2000, 17, 525-531.	1.3	354
7	Enhanced warming of the <scp>N</scp>orthwest <scp>A</scp>tlantic <scp>O</scp>cean under climate change. Journal of Geophysical Research: Oceans, 2016, 121, 118-132.	2.6	348
8	Formulation of an ocean model for global climate simulations. Ocean Science, 2005, 1, 45-79.	3.4	343
9	Impacts on Ocean Heat from Transient Mesoscale Eddies in a Hierarchy of Climate Models. Journal of Climate, 2015, 28, 952-977.	3.2	292
10	The GFDL CM3 Coupled Climate Model: Characteristics of the Ocean and Sea Ice Simulations. Journal of Climate, 2011, 24, 3520-3544.	3.2	288
11	The GFDL Earth System Model Version 4.1 (GFDLâ€ESM 4.1): Overall Coupled Model Description and Simulation Characteristics. Journal of Advances in Modeling Earth Systems, 2020, 12, e2019MS002015.	3.8	277
12	GFDL's CM2 Global Coupled Climate Models. Part II: The Baseline Ocean Simulation. Journal of Climate, 2006, 19, 675-697.	3.2	269
13	Amplified Arctic climate change: What does surface albedo feedback have to do with it?. Geophysical Research Letters, 2006, 33, .	4.0	255
14	Structure and Performance of GFDL's CM4.0 Climate Model. Journal of Advances in Modeling Earth Systems, 2019, 11, 3691-3727.	3.8	242
15	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.	3.6	223
16	Importance of Ocean Heat Uptake Efficacy to Transient Climate Change. Journal of Climate, 2010, 23, 2333-2344.	3.2	221
17	The GFDL Global Ocean and Sea Ice Model OM4.0: Model Description and Simulation Features. Journal of Advances in Modeling Earth Systems, 2019, 11, 3167-3211.	3.8	195
18	Change in future climate due to Antarctic meltwater. Nature, 2018, 564, 53-58.	27.8	189

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19	The GFDL Global Atmosphere and Land Model AM4.0/LM4.0: 2. Model Description, Sensitivity Studies, and Tuning Strategies. Journal of Advances in Modeling Earth Systems, 2018, 10, 735-769.	3.8	185
20	Thermohaline Oscillations Induced by Strong Steady Salinity Forcing of Ocean General Circulation Models. Journal of Physical Oceanography, 1993, 23, 1389-1410.	1.7	160
21	The GFDL Global Atmosphere and Land Model AM4.0/LM4.0: 1. Simulation Characteristics With Prescribed SSTs. Journal of Advances in Modeling Earth Systems, 2018, 10, 691-734.	3.8	155
22	Connecting Changing Ocean Circulation with Changing Climate. Journal of Climate, 2013, 26, 2268-2278.	3.2	152
23	Comparison of results from several AOGCMs for global and regional sea-level change 1900-2100. Climate Dynamics, 2001, 18, 225-240.	3.8	139
24	The Flux-Anomaly-Forced Model Intercomparison Project (FAFMIP) contribution to CMIP6: investigation of sea-level and ocean climate change in response to CO₂ forcing. Geoscientific Model Development, 2016, 9, 3993-4017.	3.6	133
25	Simulation of Density-Driven Frictional Downslope Flow inZ-Coordinate Ocean Models. Journal of Physical Oceanography, 1998, 28, 2163-2174.	1.7	127
26	Continued global warming after CO2 emissions stoppage. Nature Climate Change, 2014, 4, 40-44.	18.8	115
27	GFDL's CM2 Global Coupled Climate Models. Part IV: Idealized Climate Response. Journal of Climate, 2006, 19, 723-740.	3.2	110
28	An assessment of global and regional sea level for years 1993â€"2007 in a suite of interannual CORE-II simulations. Ocean Modelling, 2014, 78, 35-89.	2.4	106
29	Surface Albedo Feedback Estimates for the AR4 Climate Models. Journal of Climate, 2006, 19, 359-365.	3.2	104
30	Skillful regional prediction of Arctic sea ice on seasonal timescales. Geophysical Research Letters, 2017, 44, 4953-4964.	4.0	102
31	Do Climate Models Underestimate the Sensitivity of Northern Hemisphere Sea Ice Cover?. Journal of Climate, 2011, 24, 3924-3934.	3.2	97
32	Has coarse ocean resolution biased simulations of transient climate sensitivity?. Geophysical Research Letters, 2014, 41, 8522-8529.	4.0	88
33	Does the Arctic sea ice have a tipping point?. Geophysical Research Letters, 2006, 33, .	4.0	83
34	Importance of initial conditions in seasonal predictions of Arctic sea ice extent. Geophysical Research Letters, 2014, 41, 5208-5215.	4.0	83
35	On the Climatic Impact of Ocean Circulation. Journal of Climate, 2003, 16, 2875-2889.	3.2	80
36	Northern High-Latitude Heat Budget Decomposition and Transient Warming. Journal of Climate, 2013, 26, 609-621.	3.2	66

#	ARTICLE	IF	CITATIONS
37	The Role of Horizontal Boundaries in Parameter Sensitivity and Decadal-Scale Variability of Coarse-Resolution Ocean General Circulation Models. Journal of Physical Oceanography, 1996, 26, 289-304.	1.7	63
38	Preconditioning of the Weddell Sea Polynya by the Ocean Mesoscale and Dense Water Overflows. Journal of Climate, 2017, 30, 7719-7737.	3.2	62
39	Mechanisms of Southern Ocean Heat Uptake and Transport in a Global Eddying Climate Model. Journal of Climate, 2016, 29, 2059-2075.	3.2	56
40	The Effect of Cold Climate upon North Atlantic Deep Water Formation in a Simple Oceanâ€“Atmosphere Model. Journal of Climate, 1997, 10, 37-51.	3.2	55
41	Regional Arctic seaâ€“ice prediction: potential versus operational seasonal forecast skill. Climate Dynamics, 2019, 52, 2721-2743.	3.8	42
42	Importance of wind and meltwater for observed chemical and physical changes in the Southern Ocean. Nature Geoscience, 2020, 13, 35-42.	12.9	42
43	The Damping Effect of Bottom Topography on Internal Decadal-Scale Oscillations of the Thermohaline Circulation. Journal of Physical Oceanography, 1997, 27, 203-208.	1.7	37
44	Transient Climate Sensitivity Depends on Base Climate Ocean Circulation. Journal of Climate, 2017, 30, 1493-1504.	3.2	36
45	Sea Ice-Albedo Feedback and Nonlinear Arctic Climate Change. Geophysical Monograph Series, 0, , 111-131.	0.1	32
46	Influence of Ocean and Atmosphere Components on Simulated Climate Sensitivities. Journal of Climate, 2013, 26, 231-245.	3.2	30
47	CO₂â€Induced Ocean Warming of the Antarctic Continental Shelf in an Eddying Global Climate Model. Journal of Geophysical Research: Oceans, 2017, 122, 8079-8101.	2.6	29
48	A Spring Barrier for Regional Predictions of Summer Arctic Sea Ice. Geophysical Research Letters, 2019, 46, 5937-5947.	4.0	29
49	A Mechanism for the Arctic Sea Ice Spring Predictability Barrier. Geophysical Research Letters, 2020, 47, e2020GL088335.	4.0	29
50	Agreement of CMIP5 Simulated and Observed Ocean Anthropogenic CO₂ Uptake. Geophysical Research Letters, 2017, 44, 12,298.	4.0	27
51	Simple Global Ocean Biogeochemistry With Light, Iron, Nutrients and Gas Version 2 (BLINGv2): Model Description and Simulation Characteristics in GFDL's CM4.0. Journal of Advances in Modeling Earth Systems, 2020, 12, e2019MS002008.	3.8	24
52	Simple Optical Models for Diagnosing Surfaceâ€“Atmosphere Shortwave Interactions. Journal of Climate, 2005, 18, 3796-3805.	3.2	21
53	Summer Enhancement of Arctic Sea Ice Volume Anomalies in the September-Ice Zone. Journal of Climate, 2017, 30, 2341-2362.	3.2	18
54	Climate Sensitivity of GFDL's CM4.0. Journal of Advances in Modeling Earth Systems, 2020, 12, e2019MS001838.	3.8	17

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55	Why Is the Deep Sinking Narrow?. Journal of Physical Oceanography, 1995, 25, 997-1005.	1.7	16
56	Comparison of Equilibrium Climate Sensitivity Estimates From Slab Ocean, 150â€Year, and Longer Simulations. Geophysical Research Letters, 2020, 47, e2020GL088852.	4.0	16
57	Response of Storm-Related Extreme Sea Level along the U.S. Atlantic Coast to Combined Weather and Climate Forcing. Journal of Climate, 2020, 33, 3745-3769.	3.2	16
58	The Value of Sustained Ocean Observations for Sea Ice Predictions in the Barents Sea. Journal of Climate, 2019, 32, 7017-7035.	3.2	14
59	Importance of the Antarctic Slope Current in the Southern Ocean Response to Ice Sheet Melt and Wind Stress Change. Journal of Geophysical Research: Oceans, 2022, 127, .	2.6	14
60	Formation of sea ice bridges in narrow straits in response to wind and water stresses. Journal of Geophysical Research: Oceans, 2017, 122, 5588-5610.	2.6	13
61	On the Role of the Antarctic Slope Front on the Occurrence of the Weddell Sea Polynya under Climate Change. Journal of Climate, 2021, 34, 2529-2548.	3.2	13
62	Energetics of Deep-Decoupling Oscillations. Journal of Physical Oceanography, 1995, 25, 420-427.	1.7	12
63	Revisiting the Impact of Sea Salt on Climate Sensitivity. Geophysical Research Letters, 2020, 47, e2019GL085601.	4.0	12
64	Assimilation of Satellite-Retrieved Sea Ice Concentration and Prospects for September Predictions of Arctic Sea Ice. Journal of Climate, 2021, 34, 2107-2126.	3.2	11
65	Impact of Ocean Eddy Resolution on the Sensitivity of Precipitation to CO 2 Increase. Geophysical Research Letters, 2018, 45, 7194-7203.	4.0	8
66	Impact of Enthalpy-Based Ensemble Filtering Sea Ice Data Assimilation on Decadal Predictions: Simulation with a Conceptual Pycnocline Prediction Model. Journal of Climate, 2013, 26, 2368-2378.	3.2	6
67	Mechanisms of Regional Arctic Sea Ice Predictability in Two Dynamical Seasonal Forecast Systems. Journal of Climate, 2022, 35, 4207-4231.	3.2	6
68	Wind-Driven Formation of Ice Bridges in Straits. Physical Review Letters, 2017, 118, 128701.	7.8	3
69	Polar Water Column Stability. Journal of Physical Oceanography, 1999, 29, 1368-1371.	1.7	2
70	Prospects for Seasonal Prediction of Summertime Trans-Arctic Sea Ice Path. Journal of Climate, 2022, 35, 4253-4263.	3.2	0