Michael Sigmond

List of Publications by Year
in descending order

62 papers	4,886 citations	147566 31 h-index	128067 60 g-index
68 all docs	68 docs citations	68 times ranked	4625 citing authors

#	Article	IF	Citations
1	Uncertainty in the Winter Tropospheric Response to Arctic Sea Ice Loss: The Role of Stratospheric Polar Vortex Internal Variability. Journal of Climate, 2022, 35, 3109-3130.	1.2	12
2	Robust but weak winter atmospheric circulation response to future Arctic sea ice loss. Nature Communications, 2022, 13, 727.	5.8	67
3	Long-range prediction and the stratosphere. Atmospheric Chemistry and Physics, 2022, 22, 2601-2623.	1.9	24
4	Evolving Sahel Rainfall Response to Anthropogenic Aerosols Driven by Shifting Regional Oceanic and Emission Influences. Journal of Climate, 2022, , 1-27.	1.2	7
5	Stratospheric Nudging And Predictable Surface Impacts (SNAPSI): a protocol for investigating the role of stratospheric polar vortex disturbances in subseasonal to seasonal forecasts. Geoscientific Model Development, 2022, 15, 5073-5092.	1.3	6
6	Development and Calibration of Seasonal Probabilistic Forecasts of Ice-Free Dates and Freeze-Up Dates. Weather and Forecasting, 2021, 36, 301-324.	0.5	3
7	Quantifying the influence of short-term emission reductions on climate. Science Advances, 2021, 7, .	4.7	24
8	Opposite Responses of the Dry and Moist Eddy Heat Transport Into the Arctic in the PAMIP Experiments. Geophysical Research Letters, 2021, 48, e2020GL089990.	1.5	11
9	A Minimal Model to Diagnose the Contribution of the Stratosphere to Tropospheric Forecast Skill. Journal of Geophysical Research D: Atmospheres, 2021, 126, .	1.2	3
10	North Pacific zonal wind response to sea ice loss in the Polar Amplification Model Intercomparison Project and its downstream implications. Climate Dynamics, 2020, 55, 1779-1792.	1.7	7
11	Ongoing AMOC and related sea-level and temperature changes after achieving the Paris targets. Nature Climate Change, 2020, 10, 672-677.	8.1	15
12	Uncertainty in the Response of Sudden Stratospheric Warmings and Stratosphereâ€Troposphere Coupling to Quadrupled CO₂ Concentrations in CMIP6 Models. Journal of Geophysical Research D: Atmospheres, 2020, 125, e2019JD032345.	1.2	50
13	Anthropogenic Aerosols Dominate Forced Multidecadal Sahel Precipitation Change through Distinct Atmospheric and Oceanic Drivers. Journal of Climate, 2020, 33, 10187-10204.	1.2	16
14	The Polar Amplification Model Intercomparison Project (PAMIP) contribution to CMIP6: investigating the causes and consequences of polar amplification. Geoscientific Model Development, 2019, 12, 1139-1164.	1.3	168
15	The Canadian Earth System Model version 5 (CanESM5.0.3). Geoscientific Model Development, 2019, 12, 4823-4873.	1.3	581
16	Sub-seasonal Predictability and the Stratosphere. , 2019, , 223-241.		41
17	Ice-free Arctic projections under the Paris Agreement. Nature Climate Change, 2018, 8, 404-408.	8.1	77
18	No Impact of Anthropogenic Aerosols on Early 21st Century Global Temperature Trends in a Large Initialâ€Condition Ensemble. Geophysical Research Letters, 2018, 45, 9245-9252.	1.5	25

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19	Canadian snow and sea ice: assessment of snow, sea ice, and related climate processes in Canada's Earth system model and climate-prediction system. Cryosphere, 2018, 12, 1137-1156.	1.5	27
20	The Climate-System Historical Forecast Project: Providing Open Access to Seasonal Forecast Ensembles from Centers around the Globe. Bulletin of the American Meteorological Society, 2017, 98, 2293-2301.	1.7	41
21	Remarkable separability of circulation response to Arctic sea ice loss and greenhouse gas forcing. Geophysical Research Letters, 2017, 44, 7955-7964.	1.5	63
22	The Arctic Predictability and Prediction on Seasonal-to-Interannual TimEscales (APPOSITE) data set versionÂ1. Geoscientific Model Development, 2016, 9, 2255-2270.	1.3	26
23	Examining the Predictability of the Stratospheric Sudden Warming of January 2013 Using Multiple NWP Systems. Monthly Weather Review, 2016, 144, 1935-1960.	0.5	62
24	Twenty-five winters of unexpected Eurasian cooling unlikely due to Arctic sea-ice loss. Nature Geoscience, 2016, 9, 838-842.	5.4	247
25	Skillful seasonal forecasts of Arctic sea ice retreat and advance dates in a dynamical forecast system. Geophysical Research Letters, 2016, 43, 12,457.	1.5	46
26	Tropical Pacific impacts on cooling NorthÂAmerican winters. Nature Climate Change, 2016, 6, 970-974.	8.1	65
27	The Climateâ€system Historical Forecast Project: do stratosphereâ€resolving models make better seasonal climate predictions in boreal winter?. Quarterly Journal of the Royal Meteorological Society, 2016, 142, 1413-1427.	1.0	91
28	The predictability of the extratropical stratosphere on monthly timeâ€scales and its impact on the skill of tropospheric forecasts. Quarterly Journal of the Royal Meteorological Society, 2015, 141, 987-1003.	1.0	162
29	Enhanced long-range forecast skill in boreal winter following stratospheric strong vortex conditions. Environmental Research Letters, 2015, 10, 104007.	2.2	61
30	An objective determination of optimal site locations for detecting expected trends in upper-air temperature and total column ozone. Atmospheric Chemistry and Physics, 2015, 15, 7653-7665.	1.9	3
31	The Antarctic Sea Ice Response to the Ozone Hole in Climate Models. Journal of Climate, 2014, 27, 1336-1342.	1.2	57
32	Compensation between Resolved Wave Driving and Parameterized Orographic Gravity Wave Driving of the Brewerâ€"Dobson Circulation and Its Response to Climate Change. Journal of Climate, 2014, 27, 5601-5610.	1.2	35
33	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.	1.2	268
34	Modeling evidence that ozone depletion has impacted extreme precipitation in the austral summer. Geophysical Research Letters, 2013, 40, 4054-4059.	1.5	20
35	Enhanced seasonal forecast skill following stratospheric sudden warmings. Nature Geoscience, 2013, 6, 98-102.	5.4	288
36	Seasonal forecast skill of Arctic sea ice area in a dynamical forecast system. Geophysical Research Letters, 2013, 40, 529-534.	1.5	118

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37	Multimodel climate and variability of the stratosphere. Journal of Geophysical Research, 2011, 116, .	3.3	139
38	Evaluation of radiation scheme performance within chemistry climate models. Journal of Geophysical Research, 2011, 116, .	3.3	77
39	Drivers of past and future Southern Ocean change: Stratospheric ozone versus greenhouse gas impacts. Geophysical Research Letters, 2011, 38, n/a-n/a.	1.5	45
40	Impact of Polar Ozone Depletion on Subtropical Precipitation. Science, 2011, 332, 951-954.	6.0	220
41	Separating the Dynamical Effects of Climate Change and Ozone Depletion. Part II: Southern Hemisphere Troposphere. Journal of Climate, 2011, 24, 1850-1868.	1.2	187
42	Dynamics of the Lower Stratospheric Circulation Response to ENSO. Journals of the Atmospheric Sciences, 2011, 68, 2537-2556.	0.6	29
43	Recent developments in gravityâ€wave effects in climate models and the global distribution of gravityâ€wave momentum flux from observations and models. Quarterly Journal of the Royal Meteorological Society, 2010, 136, 1103-1124.	1.0	403
44	The Influence of the Basic State on the Northern Hemisphere Circulation Response to Climate Change. Journal of Climate, 2010, 23, 1434-1446.	1.2	88
45	Temperature, Relative Humidity, and Divergence Response to High Rainfall Events in the Tropics: Observations and Models. Journal of Climate, 2010, 23, 3613-3625.	1.2	23
46	Anthropogenic forcing of the Northern Annular Mode in CCMValâ€2 models. Journal of Geophysical Research, 2010, 115, .	3.3	32
47	Does the ocean impact the atmospheric response to stratospheric ozone depletion?. Geophysical Research Letters, 2010, 37, .	1.5	20
48	Has the ozone hole contributed to increased Antarctic sea ice extent?. Geophysical Research Letters, 2010, 37, .	1.5	115
49	Impact of sudden Arctic seaâ€ice loss on stratospheric polar ozone recovery. Geophysical Research Letters, 2009, 36, .	1.5	35
50	Sensitivity of Simulated Climate to Conservation of Momentum in Gravity Wave Drag Parameterization. Journal of Climate, 2009, 22, 2726-2742.	1.2	31
51	Solar modulation of the Northern Hemisphere winter trends and its implications with increasing CO₂. Geophysical Research Letters, 2008, 35, .	1.5	17
52	How does the northernâ€winter wave driving of the Brewerâ€Dobson circulation increase in an enhancedâ€CO₂ climate simulation?. Geophysical Research Letters, 2008, 35, .	1.5	10
53	Impact of the stratosphere on tropospheric climate change. Geophysical Research Letters, 2008, 35, .	1.5	80
54	Discriminating robust and nonâ€robust atmospheric circulation responses to global warming. Journal of Geophysical Research, 2007, 112, .	3.3	11

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55	Simulations of anthropogenic change in the strength of the Brewerâ€“Dobson circulation. Climate Dynamics, 2006, 27, 727-741.	1.7	371
56	A Simulation of the Separate Climate Effects of Middle-Atmospheric and Tropospheric CO2Doubling. Journal of Climate, 2004, 17, 2352-2367.	1.2	85
57	The stratosphere as a puppeteer of European winter climate. Europhysics News, 2004, 35, 73-75.	0.1	0
58	Analysis of the coupling between the stratospheric meridional wind and the surface level zonal wind during 1979?93 Northern Hemisphere extratropical winters. Climate Dynamics, 2003, 21, 211-219.	1.7	6
59	Inertial instability flow in the troposphere over Suriname during the South American Monsoon. Geophysical Research Letters, 2003, 30, .	1.5	6
60	A Lagrangian computation of stratosphere-troposphere exchange in a tropopause-folding event in the subtropical Southern Hemisphere. Tellus, Series A: Dynamic Meteorology and Oceanography, 2001, 53, 368-379.	0.8	5
61	A Lagrangian computation of stratosphereâ€“troposphere exchange in a tropopause-folding event in the subtropical Southern Hemisphere. Tellus, Series A: Dynamic Meteorology and Oceanography, 2001, 53, 368-379.	0.8	8
62	Stratosphere-troposphere exchange in an extratropical cyclone, calculated with a Lagrangian method. Annales Geophysicae, 2000, 18, 573-582.	0.6	16