Michael Sigmond

List of Publications by Year
in descending order

Source: https://exaly.com/author-pdf/8230470/publications.pdf

Version: 2024-02-01

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	The Canadian Earth System Model version 5 (CanESM5.0.3). Geoscientific Model Development, 2019, 12, 4823-4873.	1.3	581
2	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
3	Simulations of anthropogenic change in the strength of the Breweâ€“Dobson circulation. Climate Dynamics, 2006, 27, 727-741.	1.7	371
4	Enhanced seasonal forecast skill following stratospheric sudden warmings. Nature Geoscience, 2013, 6, 98-102.	5.4	288
5	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
6	Twenty-five winters of unexpected Eurasian cooling unlikely due to Arctic sea-ice loss. Nature Geoscience, 2016, 9, 838-842.	5.4	247
7	Impact of Polar Ozone Depletion on Subtropical Precipitation. Science, 2011, 332, 951-954.	6.0	220
8	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
9	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
10	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
11	Multimodel climate and variability of the stratosphere. Journal of Geophysical Research, 2011, 116, .	3.3	139
12	Seasonal forecast skill of Arctic sea ice area in a dynamical forecast system. Geophysical Research Letters, 2013, 40, 529-534.	1.5	118
13	Has the ozone hole contributed to increased Antarctic sea ice extent?. Geophysical Research Letters, 2010, 37, .	1.5	115
14	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
15	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
16	A Simulation of the Separate Climate Effects of Middle-Atmospheric and Tropospheric CO2Doubling. Journal of Climate, 2004, 17, 2352-2367.	1.2	85
17	Impact of the stratosphere on tropospheric climate change. Geophysical Research Letters, 2008, 35, .	1.5	80
18	Evaluation of radiation scheme performance within chemistry climate models. Journal of Geophysical Research, 2011, 116, .	3.3	77

#	Article	IF	Citations
19	Ice-free Arctic projections under the Paris Agreement. Nature Climate Change, 2018, 8, 404-408.	8.1	77
20	Robust but weak winter atmospheric circulation response to future Arctic sea ice loss. Nature Communications, 2022, 13, 727.	5.8	67
21	Tropical Pacific impacts on cooling NorthÂAmerican winters. Nature Climate Change, 2016, 6, 970-974.	8.1	65
22	Remarkable separability of circulation response to Arctic sea ice loss and greenhouse gas forcing. Geophysical Research Letters, 2017, 44, 7955-7964.	1.5	63
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	Enhanced long-range forecast skill in boreal winter following stratospheric strong vortex conditions. Environmental Research Letters, 2015, 10, 104007.	2.2	61
25	The Antarctic Sea Ice Response to the Ozone Hole in Climate Models. Journal of Climate, 2014, 27, 1336-1342.	1.2	57
26	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
27	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
28	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
29	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
30	Sub-seasonal Predictability and the Stratosphere. , 2019, , 223-241.		41
31	Impact of sudden Arctic seaâ€ice loss on stratospheric polar ozone recovery. Geophysical Research Letters, 2009, 36, .	1.5	35
32	Compensation between Resolved Wave Driving and Parameterized Orographic Gravity Wave Driving of the Breweâ€“Dobson Circulation and Its Response to Climate Change. Journal of Climate, 2014, 27, 5601-5610.	1.2	35
33	Anthropogenic forcing of the Northern Annular Mode in CCMValâ€2 models. Journal of Geophysical Research, 2010, 115, .	3.3	32
34	Sensitivity of Simulated Climate to Conservation of Momentum in Gravity Wave Drag Parameterization. Journal of Climate, 2009, 22, 2726-2742.	1.2	31
35	Dynamics of the Lower Stratospheric Circulation Response to ENSO. Journals of the Atmospheric Sciences, 2011, 68, 2537-2556.	0.6	29
36	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

#	Article	IF	Citations
37	The Arctic Predictability and Prediction on Seasonal-to-Interannual TimEscales (APPOSITE) data set versionÂ1. Geoscientific Model Development, 2016, 9, 2255-2270.	1.3	26
38	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
39	Quantifying the influence of short-term emission reductions on climate. Science Advances, 2021, 7, .	4.7	24
40	Long-range prediction and the stratosphere. Atmospheric Chemistry and Physics, 2022, 22, 2601-2623.	1.9	24
41	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
42	Does the ocean impact the atmospheric response to stratospheric ozone depletion?. Geophysical Research Letters, 2010, 37, .	1.5	20
43	Modeling evidence that ozone depletion has impacted extreme precipitation in the austral summer. Geophysical Research Letters, 2013, 40, 4054-4059.	1.5	20
44	Solar modulation of the Northern Hemisphere winter trends and its implications with increasing CO₂. Geophysical Research Letters, 2008, 35, .	1.5	17
45	Stratosphere-troposphere exchange in an extratropical cyclone, calculated with a Lagrangian method. Annales Geophysicae, 2000, 18, 573-582.	0.6	16
46	Anthropogenic Aerosols Dominate Forced Multidecadal Sahel Precipitation Change through Distinct Atmospheric and Oceanic Drivers. Journal of Climate, 2020, 33, 10187-10204.	1.2	16
47	Ongoing AMOC and related sea-level and temperature changes after achieving the Paris targets. Nature Climate Change, 2020, 10, 672-677.	8.1	15
48	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
49	Discriminating robust and nonâ€robust atmospheric circulation responses to global warming. Journal of Geophysical Research, 2007, 112, .	3.3	11
50	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
51	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
52	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
53	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
54	Evolving Sahel Rainfall Response to Anthropogenic Aerosols Driven by Shifting Regional Oceanic and Emission Influences. Journal of Climate, 2022, , 1-27.	1.2	7

#	Article	IF	Citations
55	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
56	Inertial instability flow in the troposphere over Suriname during the South American Monsoon. Geophysical Research Letters, 2003, 30, .	1.5	6
57	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
58	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
59	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
60	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
61	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
62	The stratosphere as a puppeteer of European winter climate. Europhysics News, 2004, 35, 73-75.	0.1	0