

Michael Sigmund

List of Publications by Year in descending order

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Version: 2024-02-01

62
papers

4,886
citations

147801

31
h-index

128289

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. <i>Journal of Climate</i> , 2022, 35, 3109-3130.	3.2	12
2	Robust but weak winter atmospheric circulation response to future Arctic sea ice loss. <i>Nature Communications</i> , 2022, 13, 727.	12.8	67
3	Long-range prediction and the stratosphere. <i>Atmospheric Chemistry and Physics</i> , 2022, 22, 2601-2623.	4.9	24
4	Evolving Sahel Rainfall Response to Anthropogenic Aerosols Driven by Shifting Regional Oceanic and Emission Influences. <i>Journal of Climate</i> , 2022, , 1-27.	3.2	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. <i>Geoscientific Model Development</i> , 2022, 15, 5073-5092.	3.6	6
6	Development and Calibration of Seasonal Probabilistic Forecasts of Ice-Free Dates and Freeze-Up Dates. <i>Weather and Forecasting</i> , 2021, 36, 301-324.	1.4	3
7	Quantifying the influence of short-term emission reductions on climate. <i>Science Advances</i> , 2021, 7, .	10.3	24
8	Opposite Responses of the Dry and Moist Eddy Heat Transport Into the Arctic in the PAMIP Experiments. <i>Geophysical Research Letters</i> , 2021, 48, e2020GL089990.	4.0	11
9	A Minimal Model to Diagnose the Contribution of the Stratosphere to Tropospheric Forecast Skill. <i>Journal of Geophysical Research D: Atmospheres</i> , 2021, 126, .	3.3	3
10	North Pacific zonal wind response to sea ice loss in the Polar Amplification Model Intercomparison Project and its downstream implications. <i>Climate Dynamics</i> , 2020, 55, 1779-1792.	3.8	7
11	Ongoing AMOC and related sea-level and temperature changes after achieving the Paris targets. <i>Nature Climate Change</i> , 2020, 10, 672-677.	18.8	15
12	Uncertainty in the Response of Sudden Stratospheric Warmings and Stratosphere-Troposphere Coupling to Quadrupled CO ₂ Concentrations in CMIP6 Models. <i>Journal of Geophysical Research D: Atmospheres</i> , 2020, 125, e2019JD032345.	3.3	50
13	Anthropogenic Aerosols Dominate Forced Multidecadal Sahel Precipitation Change through Distinct Atmospheric and Oceanic Drivers. <i>Journal of Climate</i> , 2020, 33, 10187-10204.	3.2	16
14	The Polar Amplification Model Intercomparison Project (PAMIP) contribution to CMIP6: investigating the causes and consequences of polar amplification. <i>Geoscientific Model Development</i> , 2019, 12, 1139-1164.	3.6	168
15	The Canadian Earth System Model version 5 (CanESM5.0.3). <i>Geoscientific Model Development</i> , 2019, 12, 4823-4873.	3.6	581
16	Sub-seasonal Predictability and the Stratosphere. , 2019, , 223-241.		41
17	Ice-free Arctic projections under the Paris Agreement. <i>Nature Climate Change</i> , 2018, 8, 404-408.	18.8	77
18	No Impact of Anthropogenic Aerosols on Early 21st Century Global Temperature Trends in a Large Initial-Condition Ensemble. <i>Geophysical Research Letters</i> , 2018, 45, 9245-9252.	4.0	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. <i>Cryosphere</i> , 2018, 12, 1137-1156.	3.9	27
20	The Climate-System Historical Forecast Project: Providing Open Access to Seasonal Forecast Ensembles from Centers around the Globe. <i>Bulletin of the American Meteorological Society</i> , 2017, 98, 2293-2301.	3.3	41
21	Remarkable separability of circulation response to Arctic sea ice loss and greenhouse gas forcing. <i>Geophysical Research Letters</i> , 2017, 44, 7955-7964.	4.0	63
22	The Arctic Predictability and Prediction on Seasonal-to-Interannual Timescales (APPOSITE) data set version 1. <i>Geoscientific Model Development</i> , 2016, 9, 2255-2270.	3.6	26
23	Examining the Predictability of the Stratospheric Sudden Warming of January 2013 Using Multiple NWP Systems. <i>Monthly Weather Review</i> , 2016, 144, 1935-1960.	1.4	62
24	Twenty-five winters of unexpected Eurasian cooling unlikely due to Arctic sea-ice loss. <i>Nature Geoscience</i> , 2016, 9, 838-842.	12.9	247
25	Skillful seasonal forecasts of Arctic sea ice retreat and advance dates in a dynamical forecast system. <i>Geophysical Research Letters</i> , 2016, 43, 12,457.	4.0	46
26	Tropical Pacific impacts on cooling North American winters. <i>Nature Climate Change</i> , 2016, 6, 970-974.	18.8	65
27	The Climate-system Historical Forecast Project: do stratosphere-resolving models make better seasonal climate predictions in boreal winter?. <i>Quarterly Journal of the Royal Meteorological Society</i> , 2016, 142, 1413-1427.	2.7	91
28	The predictability of the extratropical stratosphere on monthly timescales and its impact on the skill of tropospheric forecasts. <i>Quarterly Journal of the Royal Meteorological Society</i> , 2015, 141, 987-1003.	2.7	162
29	Enhanced long-range forecast skill in boreal winter following stratospheric strong vortex conditions. <i>Environmental Research Letters</i> , 2015, 10, 104007.	5.2	61
30	An objective determination of optimal site locations for detecting expected trends in upper-air temperature and total column ozone. <i>Atmospheric Chemistry and Physics</i> , 2015, 15, 7653-7665.	4.9	3
31	The Antarctic Sea Ice Response to the Ozone Hole in Climate Models. <i>Journal of Climate</i> , 2014, 27, 1336-1342.	3.2	57
32	Compensation between Resolved Wave Driving and Parameterized Orographic Gravity Wave Driving of the Brewer-Dobson Circulation and Its Response to Climate Change. <i>Journal of Climate</i> , 2014, 27, 5601-5610.	3.2	35
33	On the lack of stratospheric dynamical variability in low-top versions of the CMIP5 models. <i>Journal of Geophysical Research D: Atmospheres</i> , 2013, 118, 2494-2505.	3.3	268
34	Modeling evidence that ozone depletion has impacted extreme precipitation in the austral summer. <i>Geophysical Research Letters</i> , 2013, 40, 4054-4059.	4.0	20
35	Enhanced seasonal forecast skill following stratospheric sudden warmings. <i>Nature Geoscience</i> , 2013, 6, 98-102.	12.9	288
36	Seasonal forecast skill of Arctic sea ice area in a dynamical forecast system. <i>Geophysical Research Letters</i> , 2013, 40, 529-534.	4.0	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.	4.0	45
40	Impact of Polar Ozone Depletion on Subtropical Precipitation. Science, 2011, 332, 951-954.	12.6	220
41	Separating the Dynamical Effects of Climate Change and Ozone Depletion. Part II: Southern Hemisphere Troposphere. Journal of Climate, 2011, 24, 1850-1868.	3.2	187
42	Dynamics of the Lower Stratospheric Circulation Response to ENSO. Journals of the Atmospheric Sciences, 2011, 68, 2537-2556.	1.7	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.	2.7	403
44	The Influence of the Basic State on the Northern Hemisphere Circulation Response to Climate Change. Journal of Climate, 2010, 23, 1434-1446.	3.2	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.	3.2	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, .	4.0	20
48	Has the ozone hole contributed to increased Antarctic sea ice extent?. Geophysical Research Letters, 2010, 37, .	4.0	115
49	Impact of sudden Arctic seaâ€ice loss on stratospheric polar ozone recovery. Geophysical Research Letters, 2009, 36, .	4.0	35
50	Sensitivity of Simulated Climate to Conservation of Momentum in Gravity Wave Drag Parameterization. Journal of Climate, 2009, 22, 2726-2742.	3.2	31
51	Solar modulation of the Northern Hemisphere winter trends and its implications with increasing CO ₂ . Geophysical Research Letters, 2008, 35, .	4.0	17
52	How does the northernâ€winter wave driving of the Brewerâ€Dobson circulation increase in an enhancedâ€CO ₂ climate simulation?. Geophysical Research Letters, 2008, 35, .	4.0	10
53	Impact of the stratosphere on tropospheric climate change. Geophysical Research Letters, 2008, 35, .	4.0	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 Brewer–Dobson circulation. <i>Climate Dynamics</i> , 2006, 27, 727-741.	3.8	371
56	A Simulation of the Separate Climate Effects of Middle-Atmospheric and Tropospheric CO ₂ Doubling. <i>Journal of Climate</i> , 2004, 17, 2352-2367.	3.2	85
57	The stratosphere as a puppeteer of European winter climate. <i>Europhysics News</i> , 2004, 35, 73-75.	0.3	0
58	Analysis of the coupling between the stratospheric meridional wind and the surface level zonal wind during 1979-93 Northern Hemisphere extratropical winters. <i>Climate Dynamics</i> , 2003, 21, 211-219.	3.8	6
59	Inertial instability flow in the troposphere over Suriname during the South American Monsoon. <i>Geophysical Research Letters</i> , 2003, 30, .	4.0	6
60	A Lagrangian computation of stratosphere-troposphere exchange in a tropopause-folding event in the subtropical Southern Hemisphere. <i>Tellus, Series A: Dynamic Meteorology and Oceanography</i> , 2001, 53, 368-379.	1.7	5
61	A Lagrangian computation of stratosphere–troposphere exchange in a tropopause-folding event in the subtropical Southern Hemisphere. <i>Tellus, Series A: Dynamic Meteorology and Oceanography</i> , 2001, 53, 368-379.	1.7	8
62	Stratosphere-troposphere exchange in an extratropical cyclone, calculated with a Lagrangian method. <i>Annales Geophysicae</i> , 2000, 18, 573-582.	1.6	16