

# Klaus Dethloff

## List of Publications by Year in descending order

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Version: 2024-02-01

47  
papers

3,939  
citations

186265

28  
h-index

214800

47  
g-index

49  
all docs

49  
docs citations

49  
times ranked

4859  
citing authors

| #  | ARTICLE  | IF   | CITATIONS |
|----|--|------|-----------|
| 1  | Recent Arctic amplification and extreme mid-latitude weather. <i>Nature Geoscience</i> , 2014, 7, 627-637.   | 12.9 | 1,729     |
| 2  | Nonlinear response of mid-latitude weather to the changing Arctic. <i>Nature Climate Change</i> , 2016, 6, 992-999.  | 18.8 | 268       |
| 3  | The Arctic Cloud Puzzle: Using ALOUD/PASCAL Multiplatform Observations to Unravel the Role of Clouds and Aerosol Particles in Arctic Amplification. <i>Bulletin of the American Meteorological Society</i> , 2019, 100, 841-871. | 3.3  | 145       |
| 4  | Modelling the Arctic Boundary Layer: An Evaluation of Six Arctic Regional-Scale Models using Data from the Sheba Project. <i>Boundary-Layer Meteorology</i> , 2005, 117, 337-381.  | 2.3  | 131       |
| 5  | Overview of the MOSAiC expedition: Atmosphere. <i>Elementa</i> , 2022, 10, .   | 3.2  | 121       |
| 6  | Stratospheric response to Arctic sea ice retreat and associated planetary wave propagation changes. <i>Tellus, Series A: Dynamic Meteorology and Oceanography</i> , 2022, 65, 19375.   | 1.7  | 94        |
| 7  | Analysis of a link between fall Arctic sea ice concentration and atmospheric patterns in the following winter. <i>Tellus, Series A: Dynamic Meteorology and Oceanography</i> , 2022, 64, 18624.                                  | 1.7  | 89        |
| 8  | Understanding Causes and Effects of Rapid Warming in the Arctic. <i>Eos</i> , 2017, , .  | 0.1  | 76        |
| 9  | Winter Weather Patterns over Northern Eurasia and Arctic Sea Ice Loss. <i>Monthly Weather Review</i> , 2013, 141, 3786-3800.   | 1.4  | 69        |
| 10 | amatos: Parallel adaptive mesh generator for atmospheric and oceanic simulation. <i>Ocean Modelling</i> , 2005, 10, 171-183.   | 2.4  | 64        |
| 11 | Impacts of Arctic sea ice and continental snow cover changes on atmospheric winter teleconnections. <i>Geophysical Research Letters</i> , 2015, 42, 2367-2377.   | 4.0  | 59        |
| 12 | The MOSAiC ice floe: sediment-laden survivor from the Siberian shelf. <i>Cryosphere</i> , 2020, 14, 2173-2187.   | 3.9  | 59        |
| 13 | Additional Arctic observations improve weather and sea-ice forecasts for the Northern Sea Route. <i>Scientific Reports</i> , 2015, 5, 16868.   | 3.3  | 58        |
| 14 | Overview of the MOSAiC expedition: Physical oceanography. <i>Elementa</i> , 2022, 10, .  | 3.2  | 54        |
| 15 | Can preferred atmospheric circulation patterns over the North-Atlantic-Eurasian region be associated with arctic sea ice loss?. <i>Polar Science</i> , 2017, 14, 9-20.   | 1.2  | 53        |
| 16 | Impact of radiosonde observations on forecasting summertime Arctic cyclone formation. <i>Journal of Geophysical Research D: Atmospheres</i> , 2015, 120, 3249-3273.  | 3.3  | 51        |
| 17 | Importance of a soil organic layer for Arctic climate: A sensitivity study with an Arctic RCM. <i>Geophysical Research Letters</i> , 2008, 35, .   | 4.0  | 50        |
| 18 | Simulated circum-Arctic climate changes by the end of the 21st century. <i>Global and Planetary Change</i> , 2008, 62, 173-186.  | 3.5  | 47        |

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|----|--|-----|-----------|
| 19 | A discontinuous Galerkin method for the shallow water equations in spherical triangular coordinates. <i>Journal of Computational Physics</i> , 2008, 227, 10226-10242.   | 3.8 | 46        |
| 20 | Cyclone Activity in the Arctic From an Ensemble of Regional Climate Models (Arctic CORDEX). <i>Journal of Geophysical Research D: Atmospheres</i> , 2018, 123, 2537-2554.                                      | 3.3 | 46        |
| 21 | MOSAiC drift expedition from October 2019 to July 2020: sea ice conditions from space and comparison with previous years. <i>Cryosphere</i> , 2021, 15, 3897-3920.   | 3.9 | 45        |
| 22 | Unsteady analytical solutions of the spherical shallow water equations. <i>Journal of Computational Physics</i> , 2005, 210, 535-553.  | 3.8 | 44        |
| 23 | Effects of the tropospheric large-scale circulation on European winter temperatures during the period of amplified Arctic warming. <i>International Journal of Climatology</i> , 2020, 40, 509-529.            | 3.5 | 43        |
| 24 | Improved forecasts of winter weather extremes over midlatitudes with extra Arctic observations. <i>Journal of Geophysical Research: Oceans</i> , 2017, 122, 775-787.   | 2.6 | 42        |
| 25 | Effect of horizontal resolution on ECHAM6-AMIP performance. <i>Climate Dynamics</i> , 2015, 45, 185-211.   | 3.8 | 39        |
| 26 | Atmospheric winter response to Arctic sea ice changes in reanalysis data and model simulations. <i>Journal of Geophysical Research D: Atmospheres</i> , 2016, 121, 7564-7577.                                  | 3.3 | 38        |
| 27 | Cyclones and their possible changes in the Arctic by the end of the twenty first century from regional climate model simulations. <i>Theoretical and Applied Climatology</i> , 2015, 122, 85-96.               | 2.8 | 36        |
| 28 | Future projections of cyclone activity in the Arctic for the 21st century from regional climate models (Arctic-CORDEX). <i>Global and Planetary Change</i> , 2019, 182, 103005.                                | 3.5 | 32        |
| 29 | Poleward eddy heat flux anomalies associated with recent Arctic sea ice loss. <i>Geophysical Research Letters</i> , 2017, 44, 446-454.   | 4.0 | 29        |
| 30 | Recent changes in Arctic temperature extremes: warm and cold spells during winter and summer. <i>Environmental Research Letters</i> , 2015, 10, 114020.  | 5.2 | 28        |
| 31 | The role of stratospheric ozone for Arctic-midlatitude linkages. <i>Scientific Reports</i> , 2019, 9, 7962.  | 3.3 | 28        |
| 32 | Toward Understanding the Dynamical Origin of Atmospheric Regime Behavior in a Baroclinic Model. <i>Journals of the Atmospheric Sciences</i> , 2007, 64, 887-904.   | 1.7 | 24        |
| 33 | A parallel adaptive barotropic model of the atmosphere. <i>Journal of Computational Physics</i> , 2007, 223, 609-628.  | 3.8 | 23        |
| 34 | Validation of the HIRHAM-Simulated Indian Summer Monsoon Circulation. <i>Advances in Meteorology</i> , 2010, 2010, 1-14.   | 1.6 | 21        |
| 35 | The impact of radiosonde data on forecasting sea-ice distribution along the Northern Sea Route during an extremely developed cyclone. <i>Journal of Advances in Modeling Earth Systems</i> , 2016, 8, 292-303. | 3.8 | 20        |
| 36 | Circulation Regimes due to Attractor Merging in Atmospheric Models. <i>Journals of the Atmospheric Sciences</i> , 2007, 64, 2029-2044.   | 1.7 | 19        |

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|----|--|-----|-----------|
| 37 | Impact of prescribed Arctic sea ice thickness in simulations of the present and future climate. <i>Climate Dynamics</i> , 2010, 35, 619-633.   | 3.8 | 18        |
| 38 | Impact on predictability of tropical and mid-latitude cyclones by extra Arctic observations. <i>Scientific Reports</i> , 2018, 8, 12104.   | 3.3 | 17        |
| 39 | Sensitivity of high-resolution Arctic regional climate model projections to different implementations of land surface processes. <i>Climatic Change</i> , 2012, 111, 197-214.                      | 3.6 | 16        |
| 40 | Arctic Intense Summer Storms and Their Impacts on Sea Ice – A Regional Climate Modeling Study. <i>Atmosphere</i> , 2019, 10, 218.  | 2.3 | 16        |
| 41 | Arctic budget study of intermember variability using HIRHAM5 ensemble simulations. <i>Journal of Geophysical Research D: Atmospheres</i> , 2015, 120, 9390-9407.                                   | 3.3 | 12        |
| 42 | Variability of observed temperature-derived climate indices in the Arctic. <i>Global and Planetary Change</i> , 2009, 69, 214-224.   | 3.5 | 9         |
| 43 | Evaluation of the Sea-Ice Simulation in the Upgraded Version of the Coupled Regional Atmosphere-Ocean- Sea Ice Model HIRHAM – NAOSIM 2.0. <i>Atmosphere</i> , 2019, 10, 431.                       | 2.3 | 9         |
| 44 | High resolution climate simulations over the Arctic. <i>Polar Research</i> , 1999, 18, 143-150.  | 1.6 | 7         |
| 45 | Uncertainties in coupled regional Arctic climate simulations associated with the used land surface model. <i>Journal of Geophysical Research D: Atmospheres</i> , 2017, 122, 7755-7771.            | 3.3 | 6         |
| 46 | South Asian summer monsoon breaks: Process-based diagnostics in HIRHAM5. <i>Journal of Geophysical Research D: Atmospheres</i> , 2017, 122, 4880-4902.   | 3.3 | 5         |
| 47 | Improved Circulation in the Northern Hemisphere by Adjusting Gravity Wave Drag Parameterizations in Seasonal Experiments With ICON – NWP. <i>Earth and Space Science</i> , 2021, 8, e2021EA001676. | 2.6 | 4         |