

Katharina Klehmet PhD

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Positions held & Work history

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|-------------------|--|
| Since 09/2017 | Swedish Meteorological and Hydrological Institute (SMHI), Sweden Hydrology Research and Development Department |
| 03/2020 – | Hydrology, Permafrost and resilience in Eastern Russian Arctic and Subarctic <ul style="list-style-type: none">▪ Task leader: Climate data - basis for understanding climate change▪ Datamanager▪ Contribution to proposal (Belmont Forum) |
| 01/2020 – | Managing vulnerabilities to multiple water hazards in Sweden <ul style="list-style-type: none">▪ Project lead: Hydrometeorological compound events |
| 09/2019 – | Enhancing the climate science basis of Green Climate Fund funded activities <ul style="list-style-type: none">▪ Task leader: Production of climate extreme indices▪ Ensemble based analysis using CORDEX regional climate model data▪ Contribution to GCF workshops |
| 06/2019 – | Snow Climate Change Initiative (CCI) <ul style="list-style-type: none">▪ Contribution: Evaluation of Snow CCI over the pan-arctic drainage basin |
| 03/2019 – 08/2019 | Aquacrew: Advancing the Quality of Climate services for European Water <ul style="list-style-type: none">▪ Contribution to discrete split sample test of bias corrected data |
| 09/2017 – 02/2019 | Copernicus Climate Change Service (C3S) - Global Impacts <ul style="list-style-type: none">▪ Postdoc & task leader: Production of global climate impact indicators▪ Tailoring CMIP5 and CORDEX climate projections for impact studies▪ Contribution to Climate Data Store toolbox |
| 02/2010 – 12/2016 | Institute of Coastal Research, Helmholtz-Zentrum Geesthacht, Germany Group: Regional Atmospheric Modeling by Dr. B. Rockel |
| 07/2015 – 12/2016 | Postdoc in the European Project EUCLEIA - „European CLimate and weather Events: Interpretation and Attribution“ <ul style="list-style-type: none">▪ Lead scientist and coordinator of test case: Storm surges in the Baltic Sea▪ Contribution to research proposal of EU call: The ERA-NET Consortium▪ Contribution to conference organization▪ Contributing author of www.klimanavigator.de▪ Science outreach along the Baltic Sea Coast during an open-ship tour |
| 02/2014 – 06/2015 | Postdoc in the Helmholtz Climate Initiative REKLIM: Arctic Changes <ul style="list-style-type: none">▪ Reviewer of peer-reviewed journal articles▪ Contribution to EU research proposal: ERA.NET RUS Plus |
| 02/2010 – 01/2014 | Doctoral Researcher, Dissertation in Meteorology Supervisors: Prof. Dr. Hans von Storch and Dr. Burkhardt Rockel |

Education

- 2014 **PhD in Meteorology**, University of Hamburg, Germany
Supervisors: Prof. Dr. Hans von Storch and Dr. Burkhardt Rockel
Thesis: A model-based reconstruction of Siberian climate - focusing on snow cover
- 2009 **Diplom in Geography**
Rheinische Friedrich-Wilhelms Universität, Bonn, Germany
Minors: Meteorology und Geophysics
- 06/2008 – 03/2009 **Diploma Thesis**
Max Planck Institute for Meteorology, Hamburg, Germany
Department: The Atmosphere in the Earth System
Title: Climate in East Africa – model validation and investigation of regional characteristics (written in german)
- 2005 **Vordiplom in Geography**
Bayerische Julius-Maximilians Universität, Würzburg, Germany
Minors: Physics and Political Science

Internships

- 08/2009 – 12/2009 **Luxembourg Institute of Science and Technology (LIST), Luxembourg**
Climatology Group
 - Processing of meteorological data using IDL
 - Preparation of data in NetCDF-format
- 05/2007 – 06/2007 **Alfred Wegener Institute, Helmholtz Centre for polar and marine research Bremerhaven, Germany**
Department: Geosciences, Section: Glaciology
 - Creation of flight track maps
 - Collaboration in the ice-laboratory: Abstraction of ice and firn
- 03/2007 – 05/2007 **Max Planck Institute for Meteorology, Hamburg, Germany**
Department: The Atmosphere in the Earth System
Group: Regional Climate Modelling
 - Validation of regional climate model output (REMO) with observations
 - Calculation and visualization of extreme value-indices
- 02/2006 – 04/2006 **German Aerospace Center (DLR), Oberpfaffenhofen, Germany**
German Remote Sensing Data Center (DFD)
Department: Climate and Atmospheric Products
 - Calculation of statistical values of the CO₂-concentration
 - Visualization of observation data
- 07/2002 – 09/2002 **Campaign for Nuclear Phaseout, Ottawa, Canada**
 - Cooperation in public relation
 - Investigation of topics related to nuclear phaseout

Skills

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| Languages | German (native) English (fluent) French (basic), Swedish (basic) |
| Operating Systems | Linux, Windows, Solaris |
| Programming | Unix-Shell scripting, R, Python, FORTRAN (basics), IDL |
| Software | MS Office, Climate Data Operators (CDO), GrADS, LaTeX, Citavi, JabRef |
| Scientific | Research and writing, statistical data analysis and visualization |
| Modelling | Configuration and running of the regional climate model COSMO-CLM & the regional ocean model TRIM-NP |

Service to scientific community

Reviewer for Journal of Climate, Climate Research, Climate Dynamics, Polarforschung, The Cryosphere
 Contribution to conference organization: ICRC-CORDEX 2019, 14.-18.10.2019, Beijing, China
 Contribution to conference organization: 11th CLM-Community Assembly Lüneburg, Germany, 2016

Projects involved & Network

EUCLEIA, REKLIM, NEESPI, ESA DUE Permafrost, ESA DUE GlobSnow, COSMO-CLM Community

Training

How to Write a Competitive Proposal for Horizon 2020
 Project management, Business for Non-businessmen, Rhetoric for women
 3rd International Lund Regional-Scale Climate Modelling Workshop
 Earth Science Women's Network: Networking and Communication Skills and Career Building
 Optimizing Writing Strategies to Get Research Published in English
 COSMO-CLM Spring School

Publications

Berg, P., Christensen, O.B., **Klehmet, K.**, Lenderink, G., Olsson, J., Teichmann, C., and W. Yang (2019):
 Summertime precipitation extremes in a EURO-CORDEX 0.11° ensemble at an hourly resolution, Nat.
 Hazards Earth Syst. Sci., 19, 957–971

Robert Vautard, Nikolaos Christidis, Andrew Ciavarella, Carmen Alvarez-Castro, Omar Bellprat, Bo
 Christiansen, Ioana Colfescu, Tim Cowan, Francisco Doblas-Reyes, Jonatan Eden, Matthias Hauser,
 Gabriele Hegerl, Nils Hempelmann, **Katharina Klehmet**, Fraser Lott, Cathy Nangini, René Orth, Sabine
 Radanovics, Sonia Seneviratne, Geert Jan van Oldenborgh, Peter Stott, Simon Tett, Laura Wilcox, Pascal
 Yiou (2018): Evaluation of the HadGEM3-A simulations in view of climate and weather event human
 influence attribution in Europe, Climate Dynamics, Springer, doi.org/10.1007/s00382-018-4183-6

Bo Christiansen, Carmen Alvarez-Castro, Nikolaos Christidis, Andrew Ciavarella, Ioana Colfescu, Tim
 Cowan, Jonathan Ede, Mathias Hauser, Nils Hempelmann, **Katharina Klehmet**, Fraser Lott, Cathy
 Nangini, Geert Jan van Oldenborgh, René Orth, Peter Stott, Simon Tett, Robert Vautard, Laura Wilcox,
 and Pascal Yiou (2018): Was the Cold European Winter of 2009/10 Modified by Anthropogenic Climate
 Change? An Attribution Study, Journal of Climate, Volume 31, Pages 3387- 3410, doi: 10.1175/JCLI-D-
 17-0589.1

Hans von Storch, Frauke Feser, Beate Geyer, **Katharina Klehmet**, Delei Li, Burkhardt Rockel, Martina
 Schubert-Frisius, Nele Tim, Eduardo Zorita (2017): Regional re-analysis without local data -exploiting the
 downscaling paradigm, Journal of Geophysical Research – Atmospheres, Volume 122, Issue 16, Pages
 8631–8649, doi: 10.1002/2016JD026332

K. Klehmet, Rockel B. (2015): Regional climate model hindcasts for Siberia over the last decades based on the COSMO-CLM model driven by NCEP1 and ERA-40, run by Helmholtz-Zentrum Geesthacht, *WDCC at DKRZ*, doi:10.1594/WDCC/COSMO-CLM_siberia

Xu Zhou, Heidrun Matthes, Annette Rinke, **Katharina Klehmet**, Birgit Heim, Wolfgang Dorn, Daniel Klaus, Klaus Dethloff, and Burkhardt Rockel (2014): Evaluation of Arctic land snow cover characteristics, surface albedo and temperature during the transition seasons from regional climate model simulations and satellite data. *Advances in Meteorology*, vol. 2014, Article ID 604157, 2014, doi:10.1155/2014/604157.

K. Klehmet (2013): A model-based reconstruction of recent Siberian climate – focusing on snow cover, Dissertation, University of Hamburg, <http://ediss.sub.uni-hamburg.de/volltexte/2014/6847/>

K. Klehmet, B. Geyer, and B. Rockel (2013): A regional climate model hindcast for Siberia: analysis of snow water equivalent. *The Cryosphere*, 7, 1017-1034, doi:10.5194/tc-7-1017-2013.

Conference contributions

Klehmet,K., Breviere,E., Gyllensvärd,F., Little,L., Photiadou,C., B. Arheimer, 2019: Global users in the Copernicus Climate Change Service, EGU 2019 General Assembly, 07.-12.04. 2019, Vienna, Austria (talk)

Klehmet,K., Rockel,B., H. von Storch, 2016: Attribution of the 1995 and 2006 storm surge events in the southern Baltic Sea, AGU 2016 General Assembly, 12.-16.12.2016, San Francisco, USA (poster)

Klehmet,K., Rockel,B. 2016: Attribution of single storm surge events in the Baltic Sea. EGU 2016 General Assembly, 27.-02.05. 2016, Vienna, Austria (poster)

Klehmet,K., Rockel,B. 2016: Attribution of storm surge events in the southern Baltic Sea to anthropogenic influences. 1st Baltic Earth Conference, Nida, Lithuania (talk)

Klehmet,K., Geyer B., Rockel,B. 2015: Temporal discrepancies of reanalyses over Siberia and their effect on dynamical downscaling. EGU 2015 General Assembly, 27.-02.05. 2015, Vienna, Austria (poster)

Klehmet,K., Geyer B., Rockel,B. 2014: Regional characteristics of Siberian snow cover changes. International Conference “Our climate – Our future, 06.-09.10.2014, Berlin, Germany (talk)

Klehmet,K., Geyer B., Rockel,B. 2014: Recent changes of seasonal snow cover in Siberia derived by a regional climate model. EGU 2014 General Assembly, 27.-02.05. 2014, Vienna, Austria (talk)

Birgit Heim, Annett Bartsch; Kirsten K Elger, T. Sachs, Annette Rinke, Heidrun Matthes; Xu Zhou, **Katharina Klehmet**, Marcel Buchhorn, Aiman S Soliman, Claude R Duguay. DUE PERMAFROST: A Circumpolar Remote Sensing Service for Permafrost – Evaluation Case Studies and Intercomparison with Regional Climate Model Simulations. EGU 2014 General Assembly, 27.-02.05. 2014, Vienna, Austria (poster)

Klehmet,K., Rockel,B. 2012: Dynamical Downscaling over Siberia: Assessment of the added value, International Conference and Early Career Scientists School on Environmental Observations, Modeling and Information Systems – Enviromis, 24.06-03.07.2012, Irkutsk, Russia (invited talk)

Klehmet,K., Rockel,B. 2012: Dynamical Downscaling over Siberia: Is there an added value in representing recent climate conditions? EGU 2012 General Assembly, 27.-02.05. 2012, Vienna, Austria (talk)