Dr. Christine C.W. Nam

Senior Climate Data Scientist

Hamburg, Germany

christine.nam@hereon.de

Summary

Climate Data Scientist with over 15 years of experience in climate modelling, remote sensing, statistical analysis, data visualization, publishing articles, presenting research, project management, interdisciplinary communication, and customer service.

Professional Experience

2018 - Present	Senior Scientist, Climate Service Center Germany (GERICS), Hamburg, Germany
2013 - 2018	Atmospheric Scientist, Leipziger Institut für Meteorologie, Leipzig, Germany
2011 - 2013	Atmospheric Scientist, Laboratoire de Météorologie Dynamique/IPSL, Paris, France
2011	Atmospheric Scientist, Max-Planck-Institut für Meteorologie, Hamburg, Germany

Education

2008 - 2011	Dr. rerum naturalium Max-Planck-Institut für Meteorologie & Universität Hamburg, Hamburg, Germany
2006 - 2007	M.Sc. Space Studies, International Space University, Strasbourg, France
2002 - 2005	M.Sc. Atmospheric Sciences, University of Alberta, Edmonton, Canada
1997 - 2002	B.Sc. Mathematics & Atmospheric Sciences, University of Alberta, Edmonton, Canada

Contributions to Projects & Institutes

- Over 15 peer-reviewed publications: **ORCID: https://orcid.org/0000-0001-9404-3412**
- Expertise in developing and running climate models, and performing evaluations with satellite data.
- Expertise in developing and executing software programs for the statistical analysis and visualization of big data sets (e.g. deriving climate indices and their changes from petabytes of regional and global climate model ensembles on supercomputers).
- Expertise in trans-disciplinary communication of climate change, climate extremes, and the science behind it (including climate models and observations).
- Expertise in the identification of user needs and customizing relevant climate information, as well as synthesizing the results.
- Ability to contribute with the design, writing, and editing of reports, presentations, and publications.

Languages

English:	Fluent
French:	Fluent
German:	Advanced, Completed Level B2

Computer Skills

Programming:	Python (Dask, xarray), FORTRAN (90, 95), Bash
Scientific:	matlab, bokeh, seaborn
Operating Systems:	Unix, Mac OS, Windows
Office:	LATEX, OpenOffice, MS Office

Selected Awards

2014	EUMETSAT & European Commision, Germany
2014	ECMWF & European Meteorological Society, United Kingdom
2014	GEWEX & World Meteorological Organization (WMO), Netherlands
2011 & 2013	Gordon Research Conferences, USA
2009 & 2010	Keck Institute for Space Studies, USA
2008 - 2011	International Max Planck Research School, Germany
2005 - 2007	European Space Agency Scholarship, France

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Speciality

- Designing and developing digital workflows facilitating the customization and extraction of local climate information to advance actionable climate knowledge.

Peer Reviewed Publications
Published

19. **Nam, C.**, et al., Changes in Universal Thermal Climate Index from Regional Climate Model Projections over European Beaches, Climate Services, 34, 100447, doi.org/10.1016/j.cliser.2024.100447, 2024.
18. **Nam, C.**, et al., Valuation of Climate Services for Viticulturists: Tackling fungal diseases, Climate Services, https://doi.org/10.1016/j.cliser.2024.100456, 2024.
17. Valencia Cotera, R., et al., Resilient Agriculture: Water Management for Climate Change Adaptation in Lower Saxony, Journal of Water and Climate Change, https://doi.org/10.2166/wcc.2024.455, 2024.
16. Valencia Cotera, R., et al., An assessment of water management measures for climate change adaptation of agriculture in Seewinkel, Sci. Total Environment, doi.org/10.1016/j.scitotenv.2023.163906, 2023.
15. Marien, L., et al., Machine learning models to predict myocardial infarctions from past climatic and environmental conditions, Nat. Hazards Earth Syst. Sci., 22, 3015–3039, doi.org/10.5194/nhess-22-3015-2022, 2022.
14. Mülmenstädt, J., et al., An underestimated negative cloud feedback from cloud lifetime changes, Nature Climate Change, doi.org/10.1038/s41558-021-01038-1, 2021.
13. Sieck, K., et al., Weather extremes over Europe under 1.5 and 2.0°C global warming from HAPPI regional climate ensemble simulations, Earth Syst. Dynam., doi.org/10.5194/esd-12-457-2021, 2021.
12. Stevens, B., et al., Large-eddy and Storm Resolving Models for Climate Prediction the Added Value for Clouds and Precipitation, J. Met. Soc. Japan, doi.org/10.2151/jmsj.2020-021, 2020.
11. Mülmenstädt, J., et al., Reducing the aerosol forcing uncertainty using observational constraints on warm rain processes, Science Advances, doi.org/10.1126/sciadv.aaz6433, 2020.
10. Remedio, A. et al., Evaluation of New CORDEX Simulations Using an Updated Köppen–Trewartha Climate Classification, Atmosphere, doi.org/10.3390/atmos10110726, 2019.
9. Mauritsen, T., et al., Developments in the MPI-M Earth System Model version 1.2 (MPI-ESM1.2) and Its Response to Increasing CO_2, J. Adv. Model. Earth Syst., doi.org/10.1029/2018MS001400, 2019.
8. **Nam, C.**, et al., A prospectus for constraining rapid adjustments in general circulation models, J. Adv. Model. Earth Syst., doi:10.1029/2017MS001153, 2018.
7. Giorgetta, M. A., et al., ICON-A, the atmosphere component of the ICON Earth system model: I. Model description. J. Adv. Model. Earth Syst., doi.org/10.1029/2017MS001242, 2018.
6. Crueger, T. , et al., ICON-A, the atmosphere component of the ICON Earth system model: II. Model evaluation. J. Adv. Model. Earth Syst., doi.org/10.1029/2017MS001233, 2018.
5. Tsushima, Y., et al., The Cloud Feedback Model Intercomparison Project (CFMIP) Diagnostic Codes Catalogue – metrics, diagnostics and methodologies to evaluate, understand and improve the representation of clouds and cloud feedbacks in climate models, Geosci. Model Dev., 10, 4285-4305, 2017.
4. **Nam, C.**, et al., Evaluation of boundary layer cloud parameterizations in the ECHAM5 general circulation model using CALIPSO and CloudSat satellite data, J. Adv. Model. Earth Syst., doi:10.1002/2013MS000277, 2014.
3. **Nam, C.**, and J. Quaas, Geographical versus dynamically defined boundary layer cloud regimes and their use to evaluate general circulation model cloud parameterizations, Geophys. Res. Lett., 40, 4951-4956, doi:10.1002/grl.50945, 2013.
2. **Nam, C.**, et al., The “too few, too bright” tropical low-cloud problem in CMIP5 models, Geophys. Res. Lett., 39,doi:10.1029/2012GL053421, 2012.
1. **Nam, C.**, and J. Quaas, Evaluation of clouds and precipitation in the ECHAM5 general circulation model using CALIPSO and CloudSat , J. Clim., 25,4975-4992, doi:10.1175/JCLI-D-11-00347.1, 2012.

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Submitted / In Revision

In preparation

1. **Nam, C.**, et al., Safeguarding European Space Sovereignty - A need for operational climate services, European Security, *in prep.*
2. Manimaran, S., et al., Universal Thermal Comfort Index over South East Asia, *in prep.*
3. Pietikäinen, J., et al., REMO2020: a modernized modular regional climate model, *in prep.*