Norman J. Steinert

Postdoctoral researcher

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Profile

Dedicated Postdoctoral researcher at NORCE – Norwegian Research Center in Bergen, Norway. Bringing motivation, drive, and multiple years of experience in climate dynamics and interactions at renowned international research institutions. Record of versatility and fast learning skills in working collaboratively on complex projects. Substantial experience in analyzing problems in climate modeling, climate subsystem interaction, climate dynamics, and big data analysis. Specialization in land-atmosphere/land-climate interactions in Earth System Models and high-latitude ecosystem response to climate change.

Links

ORCID Website GoogleScholar Research Gate Publons

Education

PhD in Physics, Complutense University of Madrid, *Madrid, Spain* — Oct 2017 – Dec 2021

Master of Science in Meteorology, Free University of Berlin, *Berlin, Germany* — Oct 2013 – Jul 2017

Bachelor of Science in Meteorology, Free University of Berlin, *Berlin, Germany* — Oct 2010 - Sept 2013

Employment

Postdoc, NORCE - Norwegian Research Center, *Bergen, Norway* — Jan 2022 – present

Research assistant, Global forecasters - CIEMAT, *Madrid, Spain* — Jun 2017 – Sept 2017

Intern, Reuniwatt, *Saint-Pierre, La Reunion, France* — Oct 2016 – Apr 2017

Student assistant, Max Planck Institute for Meteorology, *Hamburg, Germany* — Mar 2015 – Sept 2016

Intern, Alfred-Wegener-Institute, *Bremerhaven, Germany* — Feb 2014 – Apr 2014

Student assistant, FUB - Institute for Meteorology, *Berlin, Germany* — Nov 2013 – Jan 2015

Intern, ETH - Institute for Atmospheric and Climate Science, *Zurich, Switzerland* — Jul 2012 – Sept 2012

Student assistant, German Research Center for Geosciences, *Potsdam, Germany* — Jun 2012 – Nov 2013

Skills

Analytical Thinking

Climate Modeling

Coding and Scripting

Creative Mindset

Organization

Quick Learner

Languages

German

English

Spanish

Norwegian

Complementary education and outreach activities (selected)

Workshop – Mathematics for the Climate Crisis: Extremes and Tipping Points - Poster: Steinert, N. J., von der Heydt, A. S., González-Rouco, J. F., de Vrese, P., and Bastiaansen, R.: Sensitivity of Earth System Models in estimating Arctic and subarctic climate feedbacks. International Centre for Mathematical Sciences, *Edinburgh, Scotland*, 1-5 November 2021

Invited talk – Steinert, N. J., González-Rouco, J. F., De-Vrese, P., Hagemann, S., García-Bustamante, E., Jungclaus, J. H., Lorenz, S., Melo-Aguilar, C., and García-Pereira, F.: Impact of improved land surface model physics on climate change projections and permafrost response. Utrecht University, Institute for Marine and Atmospheric research Utrecht*, Utrecht, Netherlands, 17 September 2021*

Research stay – Utrecht University, Institute for Marine and Atmospheric Research Utrecht, *Utrecht, Netherlands, 12 September 2021- 11 October 2021*

Invited talk – Steinert, N. J., González-Rouco, J. F., De-Vrese, P., Hagemann, S., García-Bustamante, E., Jungclaus, J. H., Lorenz, S., Melo-Aguilar, C., and García-Pereira, F.: Impact of improved land surface model physics on climate change projections and permafrost response. Max Planck Institute for Meteorology, *Hamburg, Germany, Feb. 2021*

Research stay – Max Planck Institute for Meteorology, *Hamburg, Germany, Nov. 2020 – Jan. 2021*

EGU General Assembly 2020 – Virtual: Steinert, N., González-Rouco, J. F., Hagemann, S., De-Vrese, García-Bustamante, E., P., Jungclaus, J. H., Melo-Aguilar, C., Lorenz, S., and Navarro, J.: Impact of improved land model depth and hydrology on climate change projections., *Vienna, Austria, Apr. 2020*

EGU General Assembly 2018 – Oral: Steinert, N., González-Rouco, J. F., García-Bustamante, E., Hagemann, S., De-Vrese, P., Jungclaus, J. H., Melo-Aguilar, C., and Lorenz, S.: Increasing the depth of a Land Surface Model: implications for the subsurface thermal and hydrological regimes., *Vienna, Austria, Apr. 2018*

International Conference on Terrestrial System Research – Oral: Steinert, N., González-Rouco, J. F., García-Bustamante, E., Hagemann, S., De-Vrese, P., Jungclaus, J. H., Melo-Aguilar, C., and Lorenz, S.: Increasing the depth of a Land Surface Model: implications for the subsurface thermal and hydrological regimes., *Bonn, Germany, Apr. 2018*

1st PMIP4 Conference – Oral + Poster: Steinert, N., González-Rouco, J. F., García-Bustamante, E., Hagemann, S., De-Vrese, P., Jungclaus, J. H., Melo-Aguilar, C., Lorenz, S., and Navarro, J.: Impact of land model depth on long-term climate variability and change., *Stockholm, Sweden, Sept. 2017*

4th International Conference on Climate Modelling – Oral: González-Rouco, J. F., Steinert, N., García-Bustamante, E., Hagemann, S., De-Vrese, P., Jungclaus, J. H., Melo-Aguilar, C., Lorenz, S., and Navarro, J.: Impact of land model depth on long-term climate variability and change., *Hamburg, Germany, Aug. 2017*

CLIVAR Open Science Conference – Poster: Steinert, N., Jungclaus, J. H., Haak, H., and Rust, H.: Application of a flow field correction method to the SST biases in the Atlantic Ocean in the MPI-ESM., *Qingdao, China, Sept. 2016*

Earth System Modelling School – Max Planck Institute for Meteorology, *Hamburg, Germany, September 2015*

🗎 Publications

Melo-Aguilar, C. A., J. F., González-Rouco, **N. J., Steinert**, H., Beltrami, F., Cuesta-Valero, A., García-García, F., García-Pereira, E., García-Bustamante, P. Roldán-Gómez, T. Schmid and J. Navarro: *Near-surface soil thermal regime and land–air temperature coupling: a case study over Spain*, Int. J. Climatol., 2022, *In Press*.

González-Rouco, J. F., **Steinert, N. J.**, García-Bustamante, E., Hagemann, S., De-Vrese, P., Jungclaus, J. H., Lorenz, S. J, Melo-Aguilar, C., and: *Increasing the depth of a Land Surface Model: Part I: Impacts on the Subsurface Thermal Regime and Energy Storage.*, J. Hydrometeorol., 22(12), 3211-3230, 2021.

Steinert, N. J., González-Rouco, J. F., De-Vrese, P., García-Bustamante, E., Hagemann, S., Melo-Aguilar, C., Jungclaus, J. H., and Lorenz, S. J.: *Increasing the depth of a Land Surface Model: Part II: Temperature Sensitivity to Improved Subsurface Thermodynamics and Associated Permafrost Response.*, J. Hydrometeorol., 22(12), 3231-3254, 2021.

Steinert, N. J., González-Rouco, J. F., García-Bustamante, E., Melo-Aguilar, C., García-Pereira, F., and Alexeev, V.: *An adapted framework for a more accurate estimate of the required bottom boundary condition placement in Land Surface Models*., Geophys. Res. Lett., 48(20), e2021GRL094273, 2021.

Melo-Aguilar, C., González-Rouco, J. F., García-Bustamante, E., **Steinert, N.**, Jungclaus, J. H., Navarro, J., and Roldán-Gómez, P. J.: *Methodological and physical biases in global to subcontinental borehole temperature reconstructions: an assessment from a pseudo-proxy perspective*, Clim. Past, 16, 453–474, https://doi.org/10.5194/cp-16-453-2020, 2020.

Melo-Aguilar, C., González-Rouco, J. F., García-Bustamante, E., Navarro-Montesinos, J., and **Steinert, N.**: *Influence of radiative forcing factors on ground–air temperature coupling during the last millennium: implications for borehole climatology*, Clim. Past, 14, 1583–1606, https://doi.org/10.5194/cp-14-1583-2018, 2018.

🎗 Awards

Utrecht Network Young Researchers Grant - *Utrecht Network, April 2021*

Top 3 presentations at PhDay Physics Complutense 2019 - *Complutense University Madrid, Madrid, Spain, November 2019*

Ernst-Reuter-Gesellschaft Conference Travel Grant 2016 - *Free University of Berlin, Berlin, Germany, August 2016*