

Curriculum vitae for Heiner Körnich (24/12/1971)

Professional preparation

Diploma: University of Rostock, Germany, physics, diploma in physics with subsidiary subjects mathematics and atmospheric physics, 1998.

PhD: 2004, University of Rostock, Germany, atmospheric physics, Title of PhD thesis: Variabilitätsmuster der atmosphärischen Zirkulation in Abhängigkeit von der Orographie und der Land-Meer-Verteilung (Variability patterns of the atmospheric circulation in dependence on the orography and land-sea heating contrasts). Supervisor: Prof. Dr. Gerhard Schmitz.

Postdoc: Leibniz-Institute of Atmospheric Physics, Kühlungsborn, Germany, atmospheric physics, 11/2004-05/2005.

Postdoc: University of Stockholm, Sweden, Meteorology, 06/2005-05/2007.

Postdoc: University of Toronto/Environment Canada, Canada, 06-09/2007

Docent: Stockholm University, Meteorology, 2013.

Appointments

Since **07/2016:** Adjunct professor in meteorology at Stockholm University (20%)

Since **05/2012:** Unlimited employment as Head of the meteorological research unit at SMHI (50% administration, 50% research).

04/2009-04/2012: "Forskarassistent" (Assistant professor) in Atmospheric Physics at the Meteorological Institute Stockholm University (MISU).

10/2007-03/2009: Researcher on projects funded by the Swedish National Space Board (SNSB) and the European Space Agency (ESA).

Tutoring experience

Main supervisor for 1 graduated PhD student at Stockholm University: Faisal Saeed Syed (2011)

Co-supervisor for 2 graduated PhD students at Stockholm University: Anna Lewinschal (2013), Anders Engström (2011).

Tutor for 1 postdoc: Linda Megner (2012)

In total, I have supervised 12 bachelor and master students at the Universities of Rostock, Stockholm and Lund. Currently, I am the main-supervisor for one PhD student that is situated at Uppsala University.

Parental leave, service in the Armed Forces, etc.

15 months of Community service in Germany (1991-1992) instead of Army service.

Parental leave: 50% in August to October 2009, 25% from January to December 2010.

Publication indices

h-index 11, 346 citations, 30 journal papers, 1 book chapter.

Current grants

2013 The European Union, FP7: Direct Normal Irradiance Nowcasting methods for optimized operation of concentrating solar technologies. 3.500.000 SEK in 4 years.

2013 The European Union, FP7: UERRA - Uncertainties in Ensembles of Regional Re-Analyses. 15.000.000 SEK in 4 years.

2013 The Swedish Energy Agency: Vindkraft i kallt klimat (Wind power in cold climate). 1.300.000 SEK in 3 years.

2015 FORMAS: Multi-scale modelling of urban weather on the example of Stockholm. 3.000.000 SEK in 3 years.

Networks in academia and industry

Member of the scientific advisory group for ESA Earth explorer Atmospheric Dynamics mission (Aeolus) since December 2009.

Member of HIRLAM Advisory Committee since 2012. The international research programme HIRLAM (High Resolution Limited Area Model) is a research cooperation of European meteorological institutes.

Member of the MetCoOp steering committee for the joined operational weather forecast by SMHI and MET Norway since 2012.

Public outreach

I have actively contributed to several public outreach efforts both in Germany and Sweden:

- Numerous posters, presentations and computer demonstrations in 2002 and 2003 for public presentations at the Leibniz-Institute of Atmospheric Physics, Kühlungsborn, Germany
- Lecture “Schwankungen der atmosphärischen Zirkulation” (Vacillations of the atmospheric circulation), 2004 on the public day at the Physics Department at the University of Rostock, Germany
- Interactive station “Climate simulations” with physical and computer experiments on the 2008 Day of Physics in Kungsträdgården, Stockholm, SE.
- Two lectures on climate change at a school (level gymnasium) in Stockholm in 2009. These lectures were part of the Swedish Transfer program which provides insight for the pupils in industry and academia.
- Presentation of profession “Scientist” for one class of level 2 (age 7-8) at the Deutsche Grundschule Stockholm, 2009.
- Presentation on state-of-the-art meteorological models to water management customers at SMHI, 2013.
- Preparation of the presentation “Meteorological Forecasting of DNI, clouds and aerosols” hold by Marion Schroedter-Homscheidt (DLR) on user workshop for thermal solar energy, Madrid, 2014.
- Presentation on future developments for meteorological models on open seminar-day of the Swedish Meteorological Society, Stockholm, 2014.
- 2 presentations on weather forecasting and reanalysis on the European Space Expo 2015 in Kungsträdgården, Stockholm, organized by the European Commission.