

The Institute for Atmospheric and Environmental Sciences at Goethe University Frankfurt invites applications for a



Postdoctoral Scientist (m/f/d)

funded within the Transregional Collaborative Research Centre 301

TPChange – The Tropopause Region in a Changing Atmosphere

by the German Research Foundation (DFG, Deutsche Forschungsgemeinschaft).

Within TPChange we aim to improve the understanding of relevant multiscale processes in the tropopause region and to specify their impact on composition, dynamics and ultimately on future climate and climate variability. The PostDoc candidate will work in project B03

Deep exchange with the UTLS: the Tibetan pipe

on "*Multi-scale water vapor/passive tracer transport over the Himalayas-Tibetan Plateau with an ICON-based modeling chain*" supervised by Prof. Bodo Ahrens (Goethe University Frankfurt, www.climtropy.de) and in close collaboration with a PhD student supervised by Prof. Juerg Schmidli (Goethe University Frankfurt) in B03 and other sub-projects.

The project aims to improve the understanding of and quantify the role of the highest mountain ranges and plateaus in the transport of water vapor, other trace gases, and aerosols between the atmospheric boundary layer (ABL) and the upper troposphere/lower stratosphere (UTLS). Reaching this goal will improve the understanding of the climate system and enhance the ICON-based climate modelling system that will be used and adopted in this project. The project focusses on the ABL to UTLS exchange over the geographical area of the Tibetan plateau (TiP) and the Himalayas with its foothills. Two transport mechanisms will be investigated: (a) dry deep mixing with tropopause folds and very deep ABLs (up to 5 km above the plateau level) in boreal winter and spring, and (b) deep convection over the TiP, the Himalayas, and Himalayan foothills in the monsoon season.

Requirements

Applicants should have a very good PhD in meteorology, physics, applied mathematics, fluid dynamics, or a related field. Expected is a strong background in atmospheric modeling and/or theory.

Employment conditions

The position is offered for 4 years and the place of employment will be the Goethe University Frankfurt. The targeted starting date is 1st October 2021.

Applications and deadline

Please send applications with reference to the code **B03-PD-GUF** as one single pdf file to tpc_jobs@uni-mainz.de, including including (i) a letter of motivation, (ii) a CV, (iii) copies of all relevant certificates, and at least three contacts for reference letters. Review of all applications will start on **1 July 2021** and will continue until the position is filled. For further information, please contact Bodo.Ahrens@iau.uni-frankfurt.de.

The Goethe University Frankfurt is an equal opportunity employer and places particular emphasis on fostering career opportunities for women. Qualified women are therefore strongly encouraged to apply. If equally qualified, severely handicapped persons are given preference.

TPChange offers a comprehensive and structured training for early career researchers. In addition to self-organised activities such as workshops, trainings and a guest program, the successful candidate will have the opportunity, if desired, to pursue international research visits. The consortium conducts an ambitious program to gradually enhance gender equality on all career levels.

We look forward to your application!

Notes on Data Protection

<https://www.verwaltung.personal.uni-mainz.de/files/2020/09/Datenschutz-BewerberInnen.pdf>