

The research group **Theory of Atmospheric Dynamics and Climate** at the Institute of Atmospheric and Environmental Sciences of the Goethe University in the city of Frankfurt (<https://frankfurt.de/english/about-frankfurt>) invites applications for a

**Research Assistant (m/f/d)
Postdoctoral Scientist
(E 13 TV-G-U)**

for the next possible date, limited for three years. The position is funded within the Transregional Collaborative Research Centre 301 "TPChange – The Tropopause Region in a Changing Atmosphere" by the German Research Foundation (DFG, Deutsche Forschungsgemeinschaft). The position includes a moderate participation in teaching. The salary grade is based on the job characteristics of the collective agreement (TV-G-U) applicable to the Goethe University. In case of successful performance an extension by up to another three years is possible.

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 postdoctoral scientist will work in project B06 on the **unresolved-dynamics impact on transport and mixing in the tropopause region**.

The position to be filled will address the dynamics of gravity waves and their impact on tracers. This shall be done within the weather and climate code ICON. For this purpose, the new multi-scale and Lagrangian gravity-wave model MS-GWaM, already implemented and running in ICON, shall be developed further, using theoretical considerations and numerical methods. Once adapted, ICON/MS-GWaM is to be used for studying the gravity-wave impact on residual circulation and mixing. Further inputs on the development of the theory and numerics of MS-GWaM would be most welcome, e.g. with regard to gravity-wave sources.

Information on the research group where the position will be located can be found at <http://www.goethe-university-frankfurt.de/45681958/Theory-of-Atmospheric-Dynamics-and-Climate>. Its focus is on scale interactions in atmospheric dynamics, applied e.g. to large-scale low-frequency variability or gravity-wave dynamics. Middle-atmosphere dynamics is another field of work. Methods employed are e.g. multi-scale asymptotics, stochastics, and numerical simulations. Inquiries should be addressed to Prof. Dr. Ulrich Achatz (achatz@iau.uni-frankfurt.de).

TPChange offers a comprehensive and structured training for early career researchers. In addition to self-organized 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.

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 theory and/or modeling, a genuine interest in atmospheric dynamics as a field of research and the readiness to work (or learn working) with atmospheric weather and climate models.

The Goethe University is committed to a policy of providing equal employment opportunities for both men and women alike, and therefore encourages particularly women to apply for the position/s offered. Individuals with severe disability will be prioritized in case of equal aptitude and ability.

Applications and deadline

Please send applications with reference to the code B06_PD_GUF as one single pdf file to achatz@iau.uni-frankfurt.de, including (i) a letter of motivation, (ii) a CV, (iii) copies of all relevant certificates, and at least two contacts for reference letters **by December 10th 2023**. Applications will be considered beyond this date until the position has been filled. For further information, please contact achatz@iau.uni-frankfurt.de.