25.09.2017

Position announcement Nr. 2017-08 *SFB/TRR 181-T1, Gassmann*

LEIBNIZ-INSTITUT FÜR ATMOSPHÄREN PHYSIK IAP

PhD student or Postdoc: Meso-scale energy cascades in the lower and middle atmosphere

The Leibniz Institute of Atmospheric Physics (IAP) is member of the Leibniz Association with research focus on the middle atmosphere. It cooperates with the University of Rostock and participates in the teaching program at the Physics Institute. The IAP is funded by the federal and the central government. It has an annual budget of about 7 Mio Euro and has about 85 employees.

The Leibniz Institute of Atmospheric Physics (IAP) offers a 2-year position

PhD student or Postdoc (m/f)

in the department for theory and modeling. The position is available from now up until the end of 2019, with the possibility of extension. The salary is according to class EG 13 TV-L, Tarifgebiet Ost (PhD student: 66 %, max. 75 % after the first publication, Postdoc: 100 %). Only candidates can be considered who fulfill the requirements for temporal contracts according to § 2 WissZeitVG.

A new Collaborative Research Centre has been established to improve the understanding and modeling of the energy transfers in the atmosphere and the ocean. The IAP is engaged in three major projects. The candidate will work on the following topic:

A turbulent diffusion scheme that is based on the Dynamical Smagorinsky Model (DSM) and is suitable for numerical truncation in the regime of the mesoscale (gravity waves) shall be developed for the global non-hydrostatic ICON-IAP circulation model. Because of the hexagonal mesh, this is a challenging task regarding the numerical implementation. The project shall focus on the generation, propagation, and breakdown of gravity waves in the lower and middle atmosphere. A primary question is whether the scaling laws of stratified turbulence apply to the energy cascade induced by the breakdown of gravity waves. For this purpose, kinetic energy and available potential energy spectra have to be analyzed. Comparison of the simulated gravity wave spectra with observational results from Lidars and Radars are used to validate the model results.

Applicants must have a degree in theoretical atmospheric physics or in a related field. A Master/Diploma degree is required when applying for the PhD position. A PhD degree is required when applying for the Postdoc position. Experiences in numerical mathematics and simulation are advantageous.

The IAP is located near the Baltic Sea and offers an attractive working environment, with modern equipment and engagement in international research. Participation in

the professional pension system (VBL) and working conditions according to the wage agreement on public services (TV-L) are provided as well. The IAP supports a family-friendly human resource policy and aims to increase the number of female scientists. It also aims to employ more handicapped persons.

Applicants are invited to submit their complete files (cover letter, curriculum vitae, copy of certificates, possibly testimonies and references) referring to the code number **2017-08 SFB/TRR 181-T1 Gassmann** via email or postal mail to

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For further information please refer to www.iap-kborn.de.

Member of Leibniz Association

Zertifikat seit 2014 audit berufundfamilie