

28.09.2016

**Position announcement Nr. 2016-07 SFB/TRR 181-  
T1, Gassmann**



**PhD student: 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 closely cooperates with the University of Rostock and is part of their teaching program. The IAP is funded in equal parts from federal and state sources, has an annual budget of about 7 Mio Euro and employs about 85 people.

The Leibniz Institute of Atmospheric Physics (IAP) offers a 3-year position

**PhD student (m/f)**

available from now on until the end of 2019 in the department for theory and modeling with the possibility for an extension. The salary is according to class EG 13 TV-L, Tarifgebiet Ost (66 %, max. 75 % when publishing an article in a peer reviewed journal). 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. We offer a PhD student position with the following task:

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 non-hydrostatic ICON-IAP circulation model. The ICON-IAP will be used with regional geometry and idealized parameterizations otherwise. The project shall focus of the generation, propagation, and break-down and gravity waves generation in the lower and middle atmosphere. The primary research questions are 1) What are the scales of the primary gravity waves at middle latitudes and 2) do the scaling laws of stratified turbulence apply to the energy cascade induced by the break-down of primary gravity waves? Comparison of the simulated gravity wave spectra with observational results from Lidars and Radars are used to validate the model results.

Applicants have to possess a Diploma/Master in theoretical atmospheric physics or a neighboring field of science. Experiences in the field of numerical simulation and mathematical statistics are of essential advantage.

The IAP offers an attractive working place near the Baltic Sea, with modern equipment, engagement in international research, participation in the professional pension system (VBL), and working conditions according to the tariff agreement on public services (TV-L).

The IAP supports a family-friendly human resource policy. It aims to increase participation of women where they are under-represented. Women are explicitly invited to apply. The IAP 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 **2016-07 SFB/TRR 181-T1 Gassmann** until a suitable candidate is found, preferably in a single PDF document, to the

Leibniz-Institute of Atmospheric Physics  
Personalabteilung/Frau Kurreck  
Schlossstr. 6  
18225 Kühlungsborn  
email: Angelika Kurreck ( [kurreck@iap-kborn.de](mailto:kurreck@iap-kborn.de) )

For the sake of costs, only those applications including back-porto will be sent back. Application and travel costs cannot be covered.

For further information, please contact  
Dr. Almut Gassmann

Email: [gassmann@iap-kborn.de](mailto:gassmann@iap-kborn.de)  
or inform yourself under [www.iap-kborn.de](http://www.iap-kborn.de).

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