

The University of Bremen, **Faculty 1 (Physics/Electrical Engineering), Institute for Environmental Physics (IUP), AG Kanakidou** - under the condition of job release – at the earliest possible date – offers the position of a

Research Assistant (PhD) (f/m/d)
German Pay Scale EG 13 TV-L
with a working time of 19,6 hrs./week, limited for 3.5 years

The time limitation is subject to the scientific qualification according to the Act of Academic Fixed-Term Contract, §2 (1) (WissZeitVG – Wissenschaftszeitvertragsgesetz). Therefore, candidates may only be considered if they dispose of the respective scope of qualification periods, according to §2 (1) WissZeitVG.

The Institute of Environmental Physics (IUP) is seeking to hire one (1) qualified and motivated PhD student to enhance our understanding on the sources and sinks of nutrients.

The PhD student will reinforce the research team of the Excellence Chair Prof. Maria Kanakidou. The ultimate scientific goal of the Excellence Chair programme is the evaluation of the impacts of anthropogenic emissions on climate and ecosystems within the Earth System in a carbon and nitrogen driven economy. In this respect, a unique modelling framework will be built that combines traditional and modern modelling tools with Earth observation data products, including satellite and ground-based remote sensing observations. It will be used to optimize estimates of the surface fluxes i.e., emission or deposition of greenhouse gases and other climate-relevant pollutants that are needed for the evaluation of their impacts on climate and ecosystems, respectively, using Earth System Models.

The research team is hosted in the Laboratory for Modeling and Observation of the Earth System (headed by Prof. Mihalis Vrekoussis). LAMOS is the most recent branch of the internationally renowned Institute of Environmental Physics (IUP) (<http://www.iup.uni-bremen.de/lamos>, <http://www.iup.uni-bremen.de/eng>) of the University of Bremen (UB).

Field of activity:

The successful PhD student will work on modeling nitrogen deposition fluxes: This PhD project concerns data assimilation of nitrogen dioxide and ammonia in the TM5 global chemistry transport model using satellite data products to optimize emissions and nitrogen deposition fluxes to ecosystems having increased accuracy compared to those currently available. The focus, with respect to the trend studies, will be on the last two decades, where satellite data are available. This will include the recent new generation of ESA Sentinel data products. The project will provide input to Earth System and Ocean modeling.

Prerequisites:

- Master degree in natural or computational sciences such as physics, chemistry, mathematics, computer science, or any other relevant field with a grade at least 2.0 or better of the German system
- Good knowledge of programming in Python or Fortran
- Familiar with Linux/Unix environment.
- Fluency in oral and written English

Additional (desired) skills

- Experience in working with large datasets (analysis and visualization)
- Experience in working with satellite data
- Hands-on experience with atmospheric modeling.
- Knowledge of atmospheric chemistry

The University of Bremen strives to increase the number of females in science; therefore women are explicitly encouraged to apply. Applicants with a migratory background are highly welcome. Disabled candidates will receive preferred consideration over mainly equally qualified contenders.

Contact

Questions concerning scientific issues:

Prof. Dr. Maria Kanakidou, mariak@uni-bremen.de

Please send your application (cover letter, cv, and copy of your degree certificates) until the **6 April 2021** by indicating the **job id A27/21** to:

University of Bremen / FB1
Secretary of Prof. Vrekoussis
Mrs P. Renken (NW1- S 3130)
Otto-Hahn-Allee 1
D-28359 Bremen
Germany

or by e-mail: prenken@uni-bremen.de

Paper-based applications are only required as a copy (no folders); they will be destroyed after the closure of the application procedure.

Veröffentlichung:

-Uni HP 11.03.2021

Bewerbungsschluss:

06.04.2021

Kopie an:

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- Zentrale Frauenbeauftragte

- Vertrauensfrau d. Schwerbehinderten