



Universität Hamburg

DER FORSCHUNG | DER LEHRE | DER BILDUNG

As a University of Excellence, Universität Hamburg is one of the strongest research universities in Germany. As a flagship university in the greater Hamburg region, it nurtures innovative, cooperative contacts to partners within and outside academia. It also provides and promotes sustainable education, knowledge, and knowledge exchange locally, nationally, and internationally.

Pending approval of external funding the **Faculty of Mathematics, Informatics and Natural Sciences, Department of Earth System Sciences, Institute of Oceanography** invites applications for a

## **RESEARCH ASSOCIATE FOR THE PROJECT “TRR 181 ENERGY TRANSFERS IN ATMOSPHERE AND OCEAN”, SUBPROJECT M2: SYSTEMATIC MULTI-SCALE MODELLING AND ANALYSIS FOR GEOPHYSICAL FLOWS**

**- SALARY LEVEL 13 TV-L -**

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The position in accordance with Section 28 subsection 3 of the Hamburg higher education act (Hamburgisches Hochschulgesetz, HmbHG) commences on 01.01.2021 at the earliest.

This is a fixed-term contract in accordance with Section 2 of the academic fixed-term labor contract act (Wissenschaftszeitvertragsgesetz, WissZeitVG). The term is fixed until 30.06.2024. The position calls for 75 % of standard work hours per week\*\*.

### **RESPONSIBILITIES:**

Duties include academic services in the TRR 181 project, which is funded by the German Research Foundation. TRR 181 investigates how exactly the energy transfer between waves, eddies and local turbulences in the ocean and the atmosphere works. In the interdisciplinary research project oceanographers, meteorologists and mathematicians from Hamburg, Bremen and Rostock work closely together to develop energetically consistent mathematical models and thus enhance climate analyses and forecast accuracy.

This research associate position in subproject M2 is available for the development and application of multi-scale finite element methods for sub-grid scale representation of small-scale processes in ocean and atmosphere circulation. Research associates may pursue independent research and further academic qualifications. Project results may be used in the context of a doctoral dissertation.

\* Full-time positions currently comprise 39 hours per week.

## SPECIFIC DUTIES:

Development of mathematical and numerical schemes based on ideas of variational multi-scale methods for sub-grid representation of processes in ocean and atmosphere circulation, implementation of algorithms and process studies.

## REQUIREMENTS:

- A university degree (master's level) in a relevant field.
- Strong mathematical background with experience in numerical modeling or simulation of geophysical wave/fluid dynamics.
- Background in finite volume or finite element methods.
- Programming skills are required, high performance computing and parallel algorithms are desirable.
- Very good command of English language as well as German is required.
- Some experience in project management as well as working in a diverse interdisciplinary environment would be desirable.

Qualified disabled candidates or applicants with equivalent status receive preference in the application process.

For further information, please contact Prof. Jörn Behrens ([joern.behrens@uni-hamburg.de](mailto:joern.behrens@uni-hamburg.de)) or consult our website at <https://www.trr-energytransfers.de/jobs>.

Applications should include a cover letter, a tabular curriculum vitae, and copies of degree certificate(s). Please send applications by 15.11.2020 to: [jobs.trr181.cen@uni-hamburg.de](mailto:jobs.trr181.cen@uni-hamburg.de).

Please do not submit original documents as we are **not** able to return them. Any documents submitted will be destroyed after the application process has concluded.