

The Leibniz Centre for Tropical Marine Research (ZMT) GmbH (www.leibniz-zmt.de) is an independent research and teaching institute that provides scientific knowledge for the protection and sustainable use of tropical coastal ecosystems. To this end, we work in an inter- and transdisciplinary manner with our partners in the tropics. The ZMT is a member of the Leibniz Association.

Within the Research Group DynaDeep, our subproject estimates global fluxes of groundwater through beaches. Biogeochemical processes in these 'subterranean estuaries' (STEs) change composition of the water and control solute flux to the coastal ocean. We develop empirical surrogate models for numerical groundwater models to estimate and extrapolate global groundwater fluxes through STEs. This provides essential base-data to other DynaDeep subprojects.

The ZMT is seeking to fill an opening for a doctoral candidate (subject to release of funds).

Doctoral candidate (gn)

(Reference: 16-DynaDeep)

Your tasks:

- Develop complex databases of global beach attributes
- Formulate conceptual models of subterranean estuaries (STEs) in beaches
- Use AI-based image recognition techniques to automatically classify results from numerical groundwater models
- Calibrate empirical models of submarine groundwater discharge and STE geometries and extrapolate them to the global scale
- Present and publish results in scientific journals

Requirements:

- MSc in a relevant discipline of Geosciences or Geography, e.g., hydrogeology, hydrology, geoinformatics or environmental modeling
- Knowledge of coastal hydrogeology
- Advanced data processing and -interpretation skills
- GIS skills
- Programming skills
- Strong abstraction capabilities and intrinsic motivation
- Independent working style and excellent written and oral English skills

Further information:

For questions, please contact Prof. Nils Moosdorf, email: nils.moosdorf@leibniz-zmt.de

Details of position:

Salary will be paid according to the German TV-L (EG 13). The position is available for part-time (75 % of a full-time position) employment starting November 1st 2025 for 42 months. ZMT is an equal opportunity employer. Applicants with a migration background are welcome. Persons with severe disabilities are given special consideration if they have the same professional and personal qualifications. The ZMT values its diverse workforce and pursues the goal of providing equal opportunity, which incorporates gender neutrality (gn). We will be happy to accept your documents without a photo.

We offer:

- A challenging and varied job in an international, dynamic and interdisciplinary research environment
- A motivated and committed team from different countries and cultures
- An open and cooperative working atmosphere
- Opportunities for personal and professional development
- Interesting, varied and challenging tasks and family-friendly working conditions
- Company pension plan (VBL)
- Company health promotion and the opportunity to participate in company fitness with EGYM Wellpass

Submission of application:

Please submit your complete application documents (cover letter, resume, references, job references, certificates and attestations) and a letter of motivation **by 15.08.2025 as a single pdf file** with the reference number **"16-DynaDeep"** to Ms. Lena de Carné-Oehlmann, email: bewerbung@leibniz-zmt.de.

Leibniz Centre for Tropical Marine Research, Fahrenheitstraße 6, D-28359 Bremen.

