

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.

The strategic extension of ZMT entitled 'Modelling socio-economic dimensions across Tropical Coastal Ecosystems and the Earth System – TropEcS aims to link the existing research capacities of ZMT in the fields of socioeconomics, marine ecology, physical oceanography and biogeochemistry with Earth system modeling. The overarching goal is to better understand and predict the impacts of global change on tropical coasts and to assess consequences of changes along tropical coasts for the Earth system. The strategic extension is integrated into the interdisciplinary ZMT Programme Areas. It will enhance ZMT's modelling capabilities, contributing to its overall research programme and strategy.

In this context ZMT is looking (subject to release of funds) for a

Postdoctoral scientist (gn)

(Reference: 26-STB-PB3-PD)

This position will be located in and contributing to the ZMT Programme Area 3 <u>Land-Ocean Fluxes and Transformation</u>. Offering a synthesis of biophysical, biogeochemical and social sciences, the focus of this Programme Area lies on analysing land-ocean material fluxes, their management and their consequences for tropical coasts as zones of complex transformation processes.

We expect the candidate to have interest and experience in any of the following research areas:

- Effects of land use, hydrology regulation, coastal development and other socioeconomic drivers on sediment, carbon, nutrient and other element fluxes in the land-ocean continuum;
- Reactive transport modelling of surface water and groundwater systems to quantify landocean fluxes and biogeochemical transformations;
- Impacts of land-derived fluxes on the health and performance of coastal ecosystems (e.g., mangrove forests, seagrass beds);
- Quantification of land-derived contributions to sediment, carbon and nutrient burial in coastal ecosystems (Blue Carbon).

Your tasks:

- Design and conduct research in the above thematic clusters in TropEcS-relevant regions (e.g., Colombia, Indonesia, Peru, India/Kerala) including sampling, analytical lab work and data analysis;
- Develop and apply reactive transport models to quantify fluxes and transformations at the land-ocean interface:
- Collaborate with natural and social scientists;
- Publish results in peer-reviewed international journals;
- Contribute to supervising students;

Requirements:

- A doctoral degree in hydrology, hydrogeology, biogeosciences, marine/environmental science, environmental engineering or related fields;
- Expertise and experience in measuring and modelling of land-ocean element fluxes;
- Experience with (reactive transport) modelling software;
- Experience in field and laboratory work;
- Experience working on (tropical) coastal ecosystems;
- Ability to build and maintain effective collaborations with multidisciplinary teams;
- Analytical and problem-solving skills;
- Strong communication skills;
- Ability to work independently and results-oriented; willingness to take on unexpected tasks,
- Intercultural competence and adaptability.

Further information:

For questions, please contact PD Dr. Tim Jennerjahn (email: <u>tim.jennerjahn@leibniz-zmt.de</u>) or Dr. Murugan Ramasamy (e-mail: <u>murugan.ramasamy@leibniz-zmt.de</u>)

Details of position:

Salary will be paid according to the German TV-L (EG 13). The position is available for full-time employment starting as soon as possible for 36 months. The fixed term is for academic qualification according to § 2 (1) WissZeitVG (Wissenschaftszeitvertragsgesetz). Accordingly, only applicants who still have the relevant qualification periods according to § 2 (1) WissZeitVG can be considered.

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 23.11.2025 as a single pdf file with the reference number "26-STB-PB3-PD" to Ms. Lena de Carné-Oehlmann, email: bewerbung@leibniz-zmt.de.

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