

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.

West African artisanal fisheries are vital for regional food security and employment. Several million people are employed in fish-related activities (fishing or fish processing) across the coast from Mauritania to Nigeria. However, the sector faces a severe crisis driven by aggressive foreign industrial overfishing, explosive growth in artisanal fleets, proliferation of fishmeal factories, and weak local enforcement. In addition to these problems, climate change is altering the physical and biogeochemical properties of the ocean, increasing the threats to food security in the region. In close collaboration with our local partners (in Senegal and Ghana), we plan to undertake a series of data-driven, mathematical modelling studies aiming at exploring the impacts of environmental change (upwelling conditions), governance (fishing regulations), and human fishing behaviour (rule compliance versus free riding) on the artisanal fisheries of the region. By integrating a variety of data (pertaining to oceanography, fish ecology, governance, and human behaviour) into a mathematical modelling framework, the overall aim of this research is to understand the conditions under which artisanal fisheries can maintain the integrity of fish populations and marine habitats while, at the same time, provide equitable livelihoods.

The working group Systems Ecology is seeking to fill an opening for a postdoctoral researcher (subject to release of funds).

Postdoctoral researcher (gn)

(Reference: 24-SE-PD)

Your tasks:

- Investigate West African artisanal fisheries and climate change
- Investigate human cooperation behaviour in the artisanal fishery
- Investigate conflicts in the West African fisheries
- Run computer simulations and analyse the results on the light of available data
- Produce results publishable in peer-reviewed international journals
- Acquire third-party funding
- Co-supervise MSc and PhD students
- Work closely with our project partners in West Africa (especially Senegal and Ghana)

Requirements:

- Applicants must hold a PhD in mathematical sciences with solid and proven expertise in the development of mathematical and computation models for studying West African artisanal fisheries.
- Advanced programming skills in python and abilities to develop mathematical and computational models from scratch are key requisites.
- We are looking for a highly motivated postdoctoral scientist with excellent communication and scientific writing competences.
- The working language is English. The position requires excellent verbal and written communication skills in English.
- This research activities are part of a long-lasting cooperation with partners in West Africa (Senegal and Ghana). Thus, the candidate is expected to be familiar with the fishery sector of West Africa and to possess research experience in the region.

Further information:

For questions, please contact Prof. Dr. Agostino Merico, email: agostino.merico@leibniz-zmt.de

Details of position:

Remuneration is based on Pay Group 13 of the Collective Agreement for the Public Service of the Federal States (TV-L). The gross monthly salary is determined in accordance with the provisions of the TV-L and currently ranges from 5366.89 EUR to 6764.69 EUR employees gross salary per month, depending on the candidate's recognized relevant professional experience. Further details regarding remuneration are governed by the TV-L and the TV-L Pay Scale Regulations (Entgeltordnung zum TV-L).

The position is available for full-time employment starting October 1st, 2026 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 31.07.2026 as a single pdf file** with the reference number "24-SE-PD" to Ms. Wiebke Harms-Krusemeyer, email: bewerbung@leibniz-zmt.de.

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