

Postdoctoral position (m/f/d) modelling livestock systems

20.04.2023

The Livestock Systems research group at the TUM School of Life Sciences in Freising is recruiting a postdoctoral researcher (m/f/d) to work on modelling future livestock systems. The aim of the group is to improve the understanding of the trade-offs between production, mitigation and conservation in livestock-based systems, and to identify innovative mechanisms to aid landscape-level management of these systems. The core modelling techniques we use are dynamic system simulations, multi-objective optimisation and the application of life cycle assessment. Our modelling work is complemented with the generation of empirical datasets for selected livestock systems in East Africa, and in the subtropics of Latin-America. This research project will study the productivity of livestock, grasslands and key links to biogeochemical cycles. We conduct both empirical and modelling work in the Gran Chaco of Argentina through collaboration with researchers from the National Research Council (CONICET), and in Kenya and Tanzania in collaboration with the International Livestock Research Institute (ILRI), and other African and European research partners.

Your tasks:

will be to develop, test and apply modelling approaches to quantify productivity, environmental and societal outcomes arising from the development of future livestock systems. The work will involve collaborating with other modelling teams and experimentalists to extend existing modelling approaches and building synergies in model capabilities.

What we expect from you:

- University degree (M.Sc.) and Ph.D. in Agricultural Science, Mathematical modelling, Biology, Environmental Science, Physical Geography, or related fields.
- Thorough understanding of the processes determining livestock productivity, and environmental impacts.
- Experience in modelling biological or agricultural systems, with strong programming skills (R, Python, or Matlab).
- Publication record appropriate to stage of career, with recent first author publications.
- Experience analysing large datasets from empirical studies, surveys and GIS.
- Interest and experience conducting research in livestock and grassland systems.
- Interested in interdisciplinary approaches.
- Good language (written and spoken English) and presentation skills.
- Ability to work in a team, with effective interpersonal communication skills.
- Willingness to assist with the supervision of BSc, MSc and PhD work.

Our offer

We offer an interesting and challenging job in a motivating and expanding international team at the Chair of Livestock Systems of TUM. The chair has a broad network of collaborators across Europe (e.g. Lancaster University, The University of Manchester, Wageningen University, University Giessen, Göttingen University, GFZ Potsdam, University of Galway), Africa and the Americas. The Chair of Livestock Systems is newly established at TUM and includes several postdocs, PhD students, and technical staff. The team works on various topics, including multi-scale analyses of productivity, nutrient and water cycling in livestock systems, grassland restoration, GHG emissions from livestock systems, and global changes impacts on crop-livestock systems. Freising is a charming University city in the vicinity to the vibrant city of Munich, very well connected by train (ca. 30 minutes), and a perfect starting point to explore the Bavarian Alps and the rest of Germany.

Working hours are flexible and remuneration is in accordance with TUM regulations (TV-L E13). Severely disabled persons will be given preference in the case of essentially equal suitability and qualifications. The successful candidate is expected to develop their own research profile and to apply for research funding. Teaching requirements are according to the Bavarian University Law and involve livestock and grassland related courses (5 hours/week). The position is initially for three years but can be extended to up to six years. TUM aims to increase the proportion of female candidates; applications from female candidates are therefore particularly encouraged.

Contact

Please send your application with a short letter of motivation conveying your interest and suitability for the position, CV, certificates and the contact details of two references to Technical University of Munich, Chair of Livestock Systems, Liesel-Beckmann Straße 4, 85354 Freising, Tel: +49 (0)816171 5483, Email: office.lsys@ls.tum.de, by **19.05.2023**. If you are applying by email, please send all documents as a single PDF document.

When applying for a position at the Technical University of Munich (TUM), you will be submitting personal data. Please refer to our data protection information in accordance with Art. 13 of the General Data Protection Regulation (DSGVO) <http://go.tum.de/554159> regarding the collection and processing of personal data in the context of your application. By submitting your application, you confirm that you have taken note of the TUM data protection information.

Please direct questions about the position to Prof. Mariana Rufino (mariana.rufino@tum.de).

More information about the Livestock Systems Research Group can be found at www3.lsys.tum.de/lsys/