



iDiv

German Centre for Integrative
Biodiversity Research (iDiv)
Halle-Jena-Leipzig

TreeDi



External Job Announcement Reg.-Nr. 4-11524/23-D

Modern, interconnected, conscious of tradition: Martin Luther University Halle-Wittenberg (MLU) is the oldest and largest university in the State of Saxony-Anhalt with a history dating back more than 500 years. Today more than 20,000 students are enrolled at the university. MLU's core research areas are in the nanosciences and bio-sciences, the Enlightenment, as well as in social and cultural research. The university is also home to a range of small disciplines, some of which can be found nowhere else in Germany. The university has excellent national and international ties, and works closely together with leading research institutes, industry, and more than 250 universities around the world.

The Martin Luther University Halle-Wittenberg, in cooperation with the DFG-funded International Research Training Group GRK 2324 "TreeDi - Tree Diversity Interactions: The role of tree-tree interactions in local neighbourhoods in Chinese subtropical forests" (www.treedidi.de) and the German Centre for Integrative Biodiversity Research (iDiv) Halle-Jena-Leipzig, invites applications for the following position, starting 01 June 2024, limited to 3 years:

Doctoral Researcher (m/f/d) on the project "Spatial aboveground complementarity" (P1G-3) as part-time employment (65%).

The salary will be up to Entgeltgruppe 13 TV-L if the personal requirements and tasks are fulfilled.

The research topic:

Tree species richness and the associated structural complexity of tree groups and forest stands are an important mechanism for increased biomass production in mixed-species forest. Terrestrial and personal laser scanning (TLS and PLS), which are light detection and ranging (LiDAR) systems, make it possible to acquire rapidly 3D tree and stand structural information with a very high resolution. The aim of the project is to analyse (i) the canopy space use of tree neighbours by using detailed crown architectural data based on TLS and PLS, (ii) the light interception and light use efficiency of tree neighbours using PAR measurements, and (iii) how these two processes modulate tree growth. The project is supervised by Prof. Dr. Goddert von Oheimb (Professor of Biodiversity and Nature Conservation, TU Dresden; Goddert.v.Oheimb@tu-dresden.de; https://tu-dresden.de/bu/umwelt/forst/oekologie/landes?set_language=en) and PD Dr. Andreas Fichtner (Associate Professor of Ecology; Vegetation Ecology and Biodiversity Conservation, Leuphana University of Lüneburg; andreas.fichtner@leuphana.de; <https://www.leuphana.de/en/institutes/institute-of-ecology/team/andreas-fichtner.html>). The doctoral researcher will be integrated into the working group of Prof. Goddert von Oheimb.

Tasks:

- Task 1: to analyse canopy space use in local tree neighbourhoods using TLS/PLS
- Task 2: to analyse light interception and light use efficiency in local tree neighbourhoods
- Task 3: to quantify how this modulates tree growth

The doctoral researcher will team up with the fellow on the Chinese side, who will study in parallel spatial belowground complementarity. Supervision and assistance will be provided by a Joint German-Chinese PhD Advisory Committee (PAC), combining empirical and theoretical expertise. All TreeDi fellows will have to submit their PhD thesis as a cumulative thesis, comprising at least three chapters in the form of first author papers in international peer-reviewed journals, of which at least one paper has to be accepted or published at the time

of thesis submission. TreeDi fosters early experience in autonomous research, and thus, encourages to become engaged in synthesis, making use of available data from previous projects. Moreover, the work will also include scientific exchange with other working groups, participation in the TreeDi qualification programme, and presentations at international conferences.

Requirements:

- A completed scientific University degree (Diploma/ M.Sc.) in a project-related field (e.g. ecology, environmental sciences)
- Very good ecological knowledge and great interest with regard to forest biodiversity research
- Good quantitative and statistical skills in R are essential
- Experience in plant ecology, dendrometry and terrestrial laser scanning is advantageous
- Fluency in English (writing and speaking)
- A clear drive to do science
- Motivation to be a proactive team player in an international research consortium
- Flexibility and good organizational skills, hands-on mentality
- Applicants must be prepared to spend substantial time (approx. 2-4 months per year) in China for field-work, lab visits and courses
- Willingness to work under subtropical field conditions; fieldwork experience would be advantageous

The Martin Luther University Halle-Wittenberg gives priority to applications from severely disabled candidates with equivalent qualifications. Women are particularly encouraged to apply. Applicants with a degree that was not obtained at a German higher education institution must submit a Statement of Comparability for Foreign Higher Education Qualifications from the Central Office for Foreign Education (Zentralstelle für ausländisches Bildungswesen) to prove equivalence. This Statement can also be submitted after successful completion of the hiring process.

Queries concerning the application process should be directed to Dr. Stefan Trogisch (stefan.trogisch@botanik.uni-halle.de), for project-related questions, please contact Prof. Dr. Goddert von Oheimb (Goddert.v.Oheimb@tu-dresden.de).

Please submit your full application dossier in English with registration number 4-11524/23-D by 3 January 2024. Applications should be submitted on the website <https://apply.idiv.de>. Application portfolios submitted by post will not be returned, application costs will not be reimbursed. Selected candidates will be invited to a recruitment symposium taking place at iDiv in Leipzig on 4-5 March 2024.

All applications should include:

- Cover letter in English describing motivation for the project, research interests and relevant experience
- Complete curriculum vitae including names and contact details of at least two scientific references
- Digital copy of MA/BA/Diploma certificates

This announcement is subject to possible budgetary restrictions.

iDiv is committed to establishing and maintaining a diverse and inclusive community that collectively supports and implements our mission to do great science. We will welcome, recruit, develop, and advance talented staff from diverse genders and backgrounds.