



iDiv

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



External Job Announcement
Reg.-Nr. 4-15040/20-D

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) invites applications for the following position, starting on 01 June 2021 and limited to 3 years:

Doctoral Researcher (m/f/d) on the project "Spatial aboveground complementarity" (P1G-2)

65 percent of a full-time employment.

The Salary will be up to Entgeltgruppe 13 TV-L, if the personal requirements and tasks are fulfilled. Work place will be located at TU Dresden (Tharandt).

Research topic:

Niche partitioning among tree crowns in canopy space ("crown complementarity") is considered an important mechanism for increased biomass production in diverse tree communities. Terrestrial laser scanning (TLS), which is a light detection and ranging (LiDAR) system, makes it possible to acquire rapidly 3D tree structural information with a very high resolution. The aim of the project is to analyse (i) the effects of local neighbours on crown complementarity of trees by quantifying the detailed crown architecture using TLS, and (ii) how these processes will translate into enhanced 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) and Prof. Dr. Werner Härdtle (Professor of [Ecology \(Landscape Ecology and Nature Conservation\)](#), Leuphana University of Lüneburg; haerdtle@uni-lueneburg.de).

Tasks:

- Analyse crown, branch and leaf traits in relation to tree-tree interactions using TLS
- Analyse trait variability related to canopy filling and light interception
- Quantify how canopy space use complementarity translates into enhanced 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 on international conferences.



Requirements:

- Master or equivalent degree in a project-related field (e.g. ecology, environmental sciences)
- Very good ecological knowledge and great interest in forest biodiversity research
- Good quantitative and statistical skills in R are essential
- Experience in plant ecology, dendrometry and terrestrial laser scanning are advantageous
- Fluent in English communication in writing and speaking. Knowledge of German and/or Chinese is an advantage
- A clear drive to do science
- Motivated to be a proactive team player in an international research consortium
- Flexible and well organized, 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. Field work 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.

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).

Submission deadline is 14 February 2021. Selected candidates will be invited to the online joint recruitment symposium taking place in March 2021 (22-23 March 2021).

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

Kindly send your application, quoting the reference number 4-15040/20-D, via our application portal at <https://apply.idiv.de>. While we prefer applications via this portal, hard-copy applications may also be sent to: German Centre for Integrative Biodiversity Research – iDiv (Halle-Jena-Leipzig), HR Department, Puschstr. 4, 04103 Leipzig.

The position is offered with reservation of possible budgetary restrictions. Application portfolios will not be returned, application costs will not be reimbursed.

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.