POSTDOCTORAL RESEARCHER (F/M/D)
"ADDRESSING MULTIPLE UNCERTAINTIES IN SPATIOTEMPORAL
 STATISTICAL MODELLING OF GLOBAL LAND-USE DYNAMICS"

Fixed term of three years, pending final approval of funding
100% FTE
Planned remuneration: salary group (*Entgeltgruppe*) 13 TV-L

The German Centre for Integrative Biodiversity Research (iDiv) Halle-Jena-Leipzig seeks to fill the above position in Leipzig at the earliest opportunity (preferably in summer 2019).

Background
New gridded information on global land-use dynamics offers exciting avenues for studying issues in biodiversity, climate, food security, and many other research fields. However, these data products inherit tremendous uncertainties that challenge their downstream application. Addressing these uncertainties requires using advanced modelling techniques and powerful computing resources. To model and analyse recent land-use dynamics using cutting-edge methodologies in a highly interdisciplinary and collaborative environment, we offer an exciting three-year postdoctoral researcher position at the German Centre for Integrative Biodiversity Research (iDiv). The project is supervised by Dr Carsten Meyer (head of iDiv's *Macroecology & Society* group) in collaboration with Professor Lars Bernhard (TU Dresden's *Geoinformatics* group), Professor Ralf Seppelt (*Computational Landscape Ecology* department, Helmholtz Centre for Environmental Research), and others at iDiv and beyond. **The German Centre for Integrative Biodiversity Research (iDiv) Halle-Jena-Leipzig** is a National Research Centre funded by the German Research Foundation (DFG). Located in Leipzig, it is a Central Institution of Leipzig University. More information about iDiv: www.iDiv.de.

Tasks
- carrying out research, developing/applying statistical/computational tools for modelling recent land-use dynamics while addressing multiple sources of uncertainty
- implementing these tools to improve newly developed spatiotemporal land-use data products; these products represent annual time series of global high-resolution maps for multiple land-use variables related to cropping, grazing, and forestry systems, derived via a model-based integration of remote sensing, statistical census, and field data; *overarching goal*: address multiple sources of uncertainties throughout the modelling workflow and represent these at pixel level in the final modelled data products
- contributing to the development of standardised vocabularies and best practices for quality assurance in modelled data products
- leading the dissemination of project results via high-quality journal publications and conference presentations
- contributing to the further development of open-science, collaborative IT solutions as part of longer-lasting tools for global land-use analysis
- contributing to the management of the collaborative project (co-organisation of project meetings, etc.).

Requirements
- PhD in a project-related field and interest in developing a career in science
- broad experience in statistical modelling evident, for instance, from a PhD project emphasising statistical modelling or computational analysis, or from formal education in a stats-related field (e.g. (geo)statistics, environmental modelling, computer science, remote sensing)
- experience in command line-based data analysis, open-source programming languages (e.g. Julia, Python, C++, R), and version control (Git)
- prior experience in addressing uncertainties in large/complex modelling workflows (e.g. Bayesian techniques for big data applications), predictive modelling, and/or spatiotemporal modelling would be advantageous
- prior experience in working with gridded environmental information (e.g. land-cover, land-use, climate) would be advantageous, but is not a prerequisite
- excellent English communication skills (spoken and written)
- proactive, results-oriented, and with excellent team skills.

We offer

- a three-year postdoctoral position in a highly dynamic, collaborative and interdisciplinary working environment; note that benefits like health insurance, parental leave, and pension plans are standard parts of university jobs in Germany
- career-building support (e.g. in proposal writing, teaching opportunities, networking at iDiv and beyond) over the course of the project, including regular interaction with an international network of land-use mapping experts
- access to powerful computing resources and support from iDiv's informatics units and collaborators
- The working language at iDiv is English. iDiv is a highly international centre with employees from over 30 countries and various forms of support for foreign-language employees (Welcome Centre, German classes, etc.). Leipzig is an attractive city with a rich cultural scene and beautiful surroundings, and international visitors usually find it easy to settle in.

Please apply, quoting reference number 83/2019, via our application portal at https://apply.idiv.de by 20/05/2019. We envisage a project start in summer 2019. Although we prefer applications via the application portal, hard-copy applications can also be sent to:

German Centre for Integrative Biodiversity Research – iDiv
Dr Carsten Meyer
Deutscher Platz 5e, 04103 Leipzig

Applications should include:

- cover letter describing your motivation, research interests and relevant experience
- CV, including a detailed account of relevant technical skills/prior experience
- digital copy of PhD certificate (or expected date of graduation – before start of this position – with an explanation of the current status of the PhD)
- access to one of your recent statistics/modelling projects relevant for this position (e.g. paper, GitHub repository)
- PDF of what you consider your best/most relevant first-authored journal publication or conference paper
- one letter of recommendation as well as contact details of two scientific referees.

Queries concerning the application process should be directed to our HR Department (hr@idiv.de); for research project questions, please contact Dr Carsten Meyer (carsten.meyer@idiv.de). Severely disabled persons are encouraged to apply and will be given preference in the case of equal suitability. Please note that applying via email is not entirely secure under data protection law. The sender assumes full responsibility.

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