



HELMHOLTZ CENTRE POTSDAM

GFZ GERMAN RESEARCH CENTRE FOR GEOSCIENCES

The Helmholtz Centre Potsdam – GFZ German Research Centre for Geosciences is the national research centre for Earth sciences in Germany. With approx. 1280 employees, the GFZ is conducting interdisciplinary research on the "System Earth" and the influence of humans on the planet. As a member of the Helmholtz Association, it is part of Germany's largest science organization.

For Section 5.4 "Hydrology" in Department 5 "Geoarchives" we invite applications for a

PhD position (m/f)

Job Vacancy No. 72/54/17 D

The doctoral student will work in the BMBF funded research project "RIESGOS - Multi-risk analysis and information system components for the Andes region" within the work-package "floods". Objective for this position is the development of a probabilistic multi-parameter flood damage model for residential buildings on basis of satellite and empirical data. This model needs to be automated and linked to the modeling system of the whole project to enable a comprehensive vulnerability assessment and multi-risk analysis.

Your tasks:

- (further) develop a Bayesian network based probabilistic loss model for residential buildings and adapt it for the Andes region
- utilize satellite data and products as input for the application of the damage model in case study areas
- undertake a survey to collect empirical flood damage data in the Andes region
- automate the loss model and integrate it into the joint vulnerability assessment and multi-risk analysis
- write project reports and scientific publications for international peer-reviewed journals
- present results at scientific meetings

Your qualifications:

- excellent Master's degree in Geoinformatics, Geography, Remote sensing or related discipline
- knowledge in geographic information systems, remote sensing analyses, programming (R, python) and data base applications is an asset
- strong interest in flood risk and vulnerability research
- experience with scientific writing and presentation, capacity for interdisciplinary teamwork
- very good English knowledge is a must
- experiences in South America (e.g. via excursions) and knowledge in Spanish are advantages

Starting date: 1 January 2018

Fixed term: 3 years

Working hours: part-time 75% (currently 29.25 h/week) **Salary:** EG 13 TVöD-Bund (Tarifqebiet Ost)

Location: Potsdam

You can expect a very diverse and challenging job in an international work environment that is characterized by exciting research projects. The compatibility of work and family life is of particular concern to the GFZ. Therefore, it offers the opportunity for flexible working time and workplaces. Moreover, there is a kindergarten located on the research campus.

The GFZ is a partner with Geo.X (www.geo-x.net), and as such it is well connected with other geoscience institutions in Potsdam und Berlin. Geo.X forms the largest regional cluster of geoscientific expertise in Europe and offers excellent opportunities for cooperation and development.

Please submit your application by **24.11.2017** quoting the reference no. **72/54/17 D** via email to **applications@gfz-potsdam.de**. Please combine your application documents (letter of motivation, CV, certificates) into a single PDF file with a size of up to 3 megabytes.

Equal opportunity is an inherent part of our personnel policy. Therefore we are particularly welcoming applications from qualified women. Severely disabled persons will be given preferential treatment in the case of equal qualification.

We will retain your application documents for at least three months, even if the application is not successful. They will not be returned.

If you have any questions regarding this job offer, please feel free to call us at +49 (0) 331-288-28846.

