

Research Associate at the Faculty of Civil Engineering and Environmental Sciences at the Institute of Hydraulic Engineering | Hydromechanics and Hydraulic Engineering in the field of "Hydrogeology, Geomorphology, Alpine Natural Hazards".

(Remuneration according to remuneration group 13 TVöD)

from 01.07.2023 (or 01.10.2023) for 3 years on a full-time or part-time basis with the subsequent possibility of extension up to a maximum of 6 years.

Our institute represents the subject of hydromechanics and hydraulic engineering in its entire range of research and teaching. Within the framework of our third-party funded research, we are involved in the latest developments. Within the research team established at the institute, experimental and numerical state-of-the-art methods are used in equal measure.

The applied field of work and research focuses on investigations of hydrogeological and geomorphological processes in the infiltration of water into frozen soils against the background of climate change in the Alpine region.

Your tasks:

- Scientific processing of the **DFG-Project**
"Thermohydraulic processes during water infiltration into frozen soil with implications for geohazards under the influence of climate change".
- Thereby
 - Set-up of a novel laboratory experiment on the infiltration of precipitation into frozen soils with subsequent execution and evaluation of the measurements.
 - Set-up of a supplementary field experiment on the infiltration of precipitation into frozen soils, followed by execution and evaluation of the measurements.
 - Parameterization of the recorded processes and description of the temperature-dependent infiltration processes as well as the geomorphological consequences (surface runoff, slope failure) against the background of climate change
 - Intensive cooperation and exchange with the project partner (Ruhr University Bochum) for the development of a numerical 2D model for temperature-dependent infiltration.
- The possibility to do a dissertation is given.
- You will present your research results together with the project partners in renowned international journals and at national and international conferences.
- You will support teaching in your area of expertise and accompany students in project, seminar, or final theses as well as on national and international excursions.

Qualification requirements:

- Completed scientific university education (Master) in the field of geophysics, geotechnics, hydrology, civil engineering, environmental engineering, physics, alpine natural hazards, torrent and avalanche control or comparable fields.
- Experience in the field of scientific experimentation (laboratory and field experiments) as well as modern simulation tools in the field are advantageous.
- Experience in programming with MATLAB is also advantageous.

What we expect:

- High motivation and interest in scientific work
- Initiative in researching complex systems and processes
- Enthusiasm for complex tasks in the field of cutting-edge research
- At least good knowledge of the English language

What we offer:

- pleasant working environment in a friendly and committed international team of highly motivated colleagues
- excellent opportunities for further education and attractive sports and leisure activities on campus
- active promotion of your scientific development and the opportunity to do a doctorate
- state-of-the-art IT and laboratory equipment
- flexible working hours
- excellent networking opportunities
- You will be classified in pay group 13, taking into account § 12 of the TVöD, with regard to the actual activities to be performed and the fulfilment of the personal and collective agreement requirements.
- Mobile working / offer of teleworking is possible after consultation with the project management.
- A campus university with a very good infrastructure, in-house crèche and kindergarten (parents' initiative), a family service center with advice and assistance for university members to better reconcile family, care and work as well as excellent sports facilities.

Employment can also be part-time if desired. The University of the Bundeswehr Munich aims to increase the proportion of female academics and employees; applications from women are expressly welcomed. Persons with a handicap will be given special consideration if they are equally qualified.

Have we sparked your interest?

Then send your application documents (cover letter, CV, diplomas and references) in PDF format (max. 10 MB) by e-mail **by 21.04.2023** to:

Dr.-Ing. Ivo Baselt (ivo.baselt@unibw.de)

You can find more information about the institute and the laboratory at <https://www.unibw.de/wasserwesen/hydromechanik-und-wasserbau> and on Prof. Dr.-Ing. Andreas Malcherek's YouTube channel <https://www.youtube.com/HydromechanikundWasserbau>.

With your application, you agree to your personal data being stored, processed, and forwarded to the offices involved in the application process for the purposes of the application. You can find more information on data protection under the following link: <https://www.unibw.de/home/footer/datenschutzerklaerung>

We are very much looking forward to receiving your application!