University of Natural Resources and Life Sciences Vienna – responsibility for Humans and Nature. We work for the sustainable use and protection of natural resources.

The Department of Water-Atmosphere-Environment, Institute of Water Management, Hydrology and Hydraulic Engineering, Christian Doppler Laboratory for Sediment Research and Management at BOKU is currently seeking a

Postgraduate Research Associate
Project employment
(Reference code: 119)

Extent of employment: 40 Hours per Week
Duration of employment: 01st of January 2018, limited to 31st of December 2020

Gross monthly salary and pay grade in terms of collective agreement for university staff (payable 14 times per year): B1, € 2.731,00

Responsibilities

- Conduct small-scale numerical experiments on the turbulent flow field around gravel-sized sediment particles using LES methods
- Investigate the interaction between gravel sediment particles and the flow field (fluid-particle interaction)
- Numerically explore and parameterize the mixing processes during dumping of fine sediment particles
- Establish mathematical relations of incipient motion and particle movement and implement these into the modelling tools developed at the working group
- Publish the findings in international scientific journals and present the results at national/international conferences

Required skills and qualifications

- Completed degree in Civil Engineering, Environmental Engineering, Applied Mathematics, Physics or related university degrees
- Experience in hydrodynamic modelling with 3D numerical simulation tools (e.g. OpenFOAM, FLUENT, CFX)
- Strong background in fluid mechanics and (turbulent) hydrodynamic processes
- Excellent knowledge in (applied) physics and/or mathematics, in particular numerical solution methods for nonlinear PDEs
- Outstanding IT skills including experience with Linux/UNIX systems

Desirable skills and qualifications

- Excellent skills in software programming (knowledge of programming related to High Performance Computing is an asset)
- Knowledge of advanced turbulence modelling in an application context, in particular LES
- Experience with sediment transport modelling
- Knowledge of fluid-structure interaction processes
- Strong ability for logical and analytical thinking
- Excellent English language skills
- Interest and enthusiasm to work in a team

Applications can be submitted until: 13th of November 2017

University of Natural Resources and Life Sciences Vienna seeks to increase the number of its female faculty and staff members. Therefore qualified women are strongly encouraged to apply. In case of equal qualification, female candidates will be given preference unless reasons specific to an individual male candidate tilt the balance in his favour.

Please send your job application to Personnel department, University of Natural Resources and Life Sciences, 1190 Vienna, Peter-Jordan-Straße 70; E-Mail: kerstin.buchmueller@boku.ac.at. **(Reference code: 119)**

We regret that we cannot reimburse applicants travel and lodging expenses incurred as part of the selection and hiring process.

www.boku.ac.at