The Austrian Research Centre for Forests (BFW) is a federal, multidisciplinary research and education centre. It currently employs approximately 300 people and consists of six departments, which cover a broad array of topics. The Department of Natural Hazards in Innsbruck has 30 staff members and is dedicated to the development of practice-oriented methods for the sustainable protection of settlements and infrastructure against Alpine natural hazards. In the Snow and Avalanche Division, we investigate the properties of the snow cover and dynamics of avalanches on different scales. In cooperation with the Austrian Service for Torrent and Avalanche Control (WLV) seek to fill a position as:

## Numerical developer/scientist for avalanche simulations

within the project "AvaFrame - The open avalanche simulation framework". We aim at developing and providing the next generation mass flow simulation tool for avalanches.

As a numerical scientist in the AvaFrame project, you will foster and expedite the use and implementation of existing and novel numerical methods to solve the equations of avalanche motion for scientific and practical applications.

*Job Responsibilities:*
- Contribute to the development of a novel simulation software for gravitational mass flows
- Develop and implement numerical schemes and solvers
- Design, develop, test and debug numerics and applications for operational use
- Publish and present your work in scientific journals and at international conferences

*Job Requirements:*
- University degree in computer science, mathematics or a related field of natural sciences
- High coding skills in Python, C++ or similar
- High proficiency in handling, analysing and communicating / visualising complex data
- Base knowledge about modern code administration / software development
- Experience with mathematical modelling big data and/or application development
- Experience with mathematical solvers in the framework of computational fluid dynamics / continuum mechanics (PDE / EOM / Transport-Equations / Shallow-Water)
- (Optional) Experience in the setup and administration of open source projects
- Strong interpersonal and communication skills, very good language skills in written and spoken English; German language skills beneficial (at least the readiness to acquire them)
- Strong team skills, flexibility and readiness to initiate and work within international collaborations and liaising with other scientists and practitioners

We offer a challenging position in a stimulating environment and the opportunity to develop your research career in the small and fascinating field of snow and avalanche research. Fixed term appointment for 3 years. Salary starting from € 2.917,2, - (minimum depending on prior experience, full-time, labour grading v 1/1), according to the Austrian Contractual Employee Act.

If you any additional information regarding the position or the project, please contact: Dr. Jan-Thomas Fischer or Mag. Felix Oesterle (tel. +43 512 573 933 5102 / +43 512 58 42 00-43, email jt.fischer@bfw.gv.at / felix.oesterle@die-wildbach.at). Submit your application including CV and motivation letter via email (application@avaframe.org) until 31.03.2020.