



Freiburg, 28.05.2021

PhD position in hydrology

at the University of Freiburg, Chair of Environmental Hydrological Systems

(https://www.hydsys.uni-freiburg.de/?set_language=en)

Starting date: summer/fall 2021

You will work in the project 'Drought and flood statistics in regulated catchments (DFStaR)', which is funded by the German Research Foundation (DFG). Hydrological extremes can have particularly severe impacts if droughts and floods happen in areas with high human presence and therefore high damage potential. To reduce the negative impacts of hydrologic extremes, we therefore need estimates of their magnitude and frequency under regulated conditions. These estimates for regulated conditions are expected to differ from those under natural conditions because flow regulations such as reservoir operation, water abstractions, and flow deviations have been shown to both aggravate and alleviate drought and flood severity. This PhD project aims to quantify impacts of flow regulation on multivariate characteristics of hydrologic extremes using statistical modeling and machine learning on large datasets.

Applicants should have an outstanding MSc degree (or equiv.) in hydrology, environmental sciences, or a closely related field. Experience with statistical data analysis and programming are essential and we encourage applications from enthusiastic and dedicated individuals who also have very good oral and written communication skills in English. Knowledge of German, Italian, or French is considered an asset as the project focuses on Central Europe and the applicant will interact with regional authorities.

We offer an interdisciplinary and international working environment in the Faculty of Environment and Natural Resources with a Graduate School program supporting PhD candidates (www.gs.esgc.uni-freiburg.de). The Chair of Environmental Hydrological Systems has strong expertise in water resources and hydrological extremes. The salary is determined according to the state salary scale (TV-L E 13, 3 years). The University of Freiburg is an equal opportunity employer and is committed to increasing diversity.

Please send your application including a cover letter, CV, certificate & transcript of your highest degree earned, an example of your own scientific writing (in English, if available), and the names and contact details of two to three references in one single pdf-file to Manuela Brunner manuela.brunner@hydrology.uni-freiburg.de (Reference: DFStaR PhD position). Formal review of applications will start on June 28 and continue until the position is filled.

Dr. Manuela Brunner
University of Freiburg
Friedrichstr. 39, 79098 Freiburg
manuela.brunner@hydrology.uni-freiburg.de