



**Universität
Zürich^{UZH}**

Vacancy for a PhD student in Hydrology

Starting date: November 2017

We announce a position for one PhD student

HILLSCAPE - hillslope hydrology and erosion

at the University of Zurich, Department of Geography, Unit Hydrology & Climate
(<http://www.geo.uzh.ch/h2k/>).

Human activities and climate change are rapidly changing the earth's surface. However, our understanding of how soils change over time and how this influences ecological, hydrological and geomorphological processes is still elementary. Some soil properties are persistent, but others can change rapidly with significant effects on water quantity and quality. This is particularly true at the hillslope scale, where lateral and vertical transport processes interact over different timescales. The German-Swiss HILLSlope Chronosequence And Process Evolution (HILLSCAPE) project focuses on the vertical and lateral redistribution of water and matter along hillslopes and how this redistribution affects and is affected by soil, vegetation and landscape development. The overall research question of the project is: How does the hillslope feedback cycle evolve in the first 10,000 years and how is this related to the evolution of hillslope structure? The HILLSCAPE project will use a chronosequence of highly instrumented plots and follow an "all measurements on all plots" approach to ensure integration of the different datasets. We will determine the hillslope structure at each of these plots and study the hydrological and geomorphological processes during common events and extreme events by conducting a series of artificial rainfall experiments. Four PhD students (located at the University of Freiburg, the German Research Centre for Geosciences and the University of Zurich) will work on the HILLSCAPE project. At the University of Zurich, we are looking for a PhD student to work at the interface of sediment transport and hillslope hydrology. This part of the HILLSCAPE project will focus on characterizing the changes in soil surface characteristics, surface and shallow subsurface flow, infiltration and soil erosion along the chronosequence.

Applicants should have a MSc degree (or equivalent) in hydrology, earth sciences, environmental sciences or in a closely related field. Strong fieldwork, data management, data processing and numerical skills are a prerequisite. Previous experience in the establishment and maintenance of a hydrological monitoring network are considered a plus. We encourage applications from enthusiastic dedicated individuals with good oral and written communication skills (English) who enjoy working in a team.

We offer an interdisciplinary, international work environment and a formal PhD program (<http://www.geo.uzh.ch/en/graduate-school/>). Salary is according to the salary scale of the Swiss National Science Foundation (SNF).

Please send your application, including cover letter, CV, relevant diploma(s), an example of your own scientific writing (if available) and the names and contact details of at least two potential references in one pdf-file (smaller than 5MB) to ilja.vanmeerveld@geo.uzh.ch with "HILLSCAPE PhD" in the subject line.

Review of applications will continue until the position is filled (please check on <http://www.geo.uzh.ch/en/units/h2k/> under "News" whether the position is still open).

For questions please contact Dr. Ilja van Meerveld (ilja.vanmeerveld@geo.uzh.ch) or Prof. Jan Seibert (jan.seibert@geo.uzh.ch)