

PhD-position Catchment Hydrology

Vacancy number	ESG CWK-0082
Location	Gelderland
Department	Wageningen University and Research centre (Staff)
Function type	Phd positions
Scientific field	Nature
Closing date for applications	30 November 2010

We are looking for

an ambitious PhD candidate in Catchment Hydrology.

Catchments are the natural filters that control how atmospheric variability in both precipitation and drivers of evaporation control streamflow. Traditionally, modeling of catchment processes is done by choosing a model concept, and optimizing its performance by adjusting its parameters. However, neither the number of processes in the model nor the number of state variables can be adjusted to the data. Recently, alternative approaches have been proposed in which the model structure and parameters are derived directly from observations of precipitation, evaporation, and streamflow.

In the project '*Hydrological process identification through time series analysis*' we will extend this approach by focusing on what information can be extracted from precipitation, evaporation, and discharge time series. In addition, a link will be established between the apparent (mass) response and the physical (flow path) response. The project will link theory and observations by combining mathematics, systems analysis, and data mining techniques. The approach will be applied to high-resolution runoff data from various catchments with contrasting hydro-climatological regimes. A possible tool for carrying out (part of this) research is ChiMeRa, a toolbox for R that was recently developed within our group. The research will be carried out at the Hydrology and Quantitative Water Management Group. Extended visits to groups abroad will be encouraged.

We ask

an ambitious colleague with an MSc degree in hydrology or a closely related subject, a strong background in quantitative methods (including computer programming), and excellent oral and written communication skills.

We offer

a temporary position for a period of 18 months with extension of 30 months after successful evaluation. Gross salary per month € 2042 in the first year rising up to € 2612 per month in the fourth year.

Information

can be obtained from dr.ir. A.J. (Ryan) Teuling, t: 0031 317 481212, e: ryan.teuling@wur.nl

Application

Are you interested? Please apply online (including your detailed Curriculum Vitae and a list of publications) before 1 December 2010 at <http://www.wur.nl/UK/work/Vacancies+New/>.

We are

The chair group of Hydrology and Quantitative Water Management co-operates closely with 7 other chair groups focusing on the domain of Water and Climate, both at Wageningen University and the research institute Alterra. The chair is embedded in the Environmental Sciences Group (ESG) of Wageningen UR (www.dow.wur.nl), in which water, climate, ecological, land use, pollution, and geo-information based research is concentrated.

Wageningen UR as a whole is a leading international knowledge institute operating in the fields of nutrition and health, sustainable agricultural systems, environmental quality and processes of social change. For more information on Wageningen UR visit www.wur.nl.

Acquisition regarding this vacancy is not appreciated.