UNIVERSITY OF COLOGNE


Foto: Jörn Henn

Faculty of Mathematics and Natural Sciences

Postdoc in Urban Climate Modelling and Climate Adaptation (f/m/x)

Institute of Geography, Ecosystem Research

We are one of the largest and oldest universities in Europe and one of the most important employers in our region. Our broad range of subjects, the dynamic development of our main research areas and our central location in Cologne make us attractive for students and researchers from around the world. We offer a wide range of career opportunities in science, technology, and administration.

In the collaborative project RAIN-USE, we investigate how cities can both buffer heavy rainfall and reduce heat. We are installing and testing forecast-controlled rainwater storage tanks. During heavy rainfall they retain water, which is then used to cool buildings and for irrigation. The campus serves as a living lab from which the approaches are to be transferred to the city. You will work closely with meteorology, health sciences, governance research, geography education and the University's Sustainability Office, as well as with TH Köln, the Cologne municipal drainage company (Stadtentwässerungsbetriebe Köln) and the start-up FloodWaive.

YOUR TASKS

- Setting up and testing forecast-controlled rainwater storage tanks that buffer heavy rainfall and cool buildings through evaporation
- Analysing the effects on runoff reduction, cooling and infiltration using a dedicated monitoring network and microclimate modelling (ENVI-met/ PALM-4U)
- Transferring results from the campus living lab to urban districts in Cologne
- Processing measurement data for the storage control software and for a climate risk app
- Publishing in international journals and transferring knowledge to the public
- Scientific project coordination in an interdisciplinary team with doctoral researchers and the Sustainability Office

YOUR PROFILE

Required qualifications

- Completed doctorate in physical geography, environmental sciences or a related field
- Experience with environmental field measurements, including data quality assurance
- Experience in urban climate or microclimate modelling (e.g. ENVI-met, PALM-4U)
- Very good skills in R or Python
- Very good written and spoken English (C1 level or equivalent)
- Good German skills (B2 level or equivalent)

Desirable

- Experience with sensor networks, citizen science or participatory formats
- Experience in project coordination and interdisciplinary projects

WE OFFER

- Shaping innovative climate adaptation together with partners from science and practice
- A diverse working environment with equal opportunities
- Support in balancing work and family life
- Flexible working time models
- Extensive advanced training opportunities
- Occupational health management offers

The University of Cologne promotes equal opportunities and diversity. Women will be considered preferentially in accordance with the Equal Opportunities Act of North Rhine-Westphalia (Landesgleichstellungsgesetz – LGG NRW). We also expressly welcome applications from all suitable candidates regardless of their gender, nationality, ethnic and social origin, religion, disability, age, sexual orientation and identity.

The position is available from 1 February 2027 on a full-time basis with 39.83 hours per week. The position is to be filled for a fixed term until 31 January 2030. If the applicant meets the relevant wage requirements and has the appropriate personal qualifications, the salary is based on remuneration group 13 TV-L of the pay scale for the German public sector.

Please apply online with proof of the required qualifications (without a photo) under https://jobportal.uni-koeln.de. The reference number is Wiss2611-11. The application deadline is 17 December 2026.

For further inquiries, please contact Professor Dr Christina Bogner (christina.bogner@uni-koeln.de) and take a look at our FAQs.

HR EXCELLENCE IN RESEARCH