

Postdoctoral Researcher, Large-scale Hydrological  
Changes  
Aalto University

Direct Link: <https://www.AcademicKeys.com/r?job=235173>

Downloaded On: Dec. 6, 2024 12:49pm

Posted Apr. 25, 2024, set to expire Dec. 30, 2024

**Job Title** Postdoctoral Researcher, Large-scale Hydrological  
Changes

**Department** T213 Built Environment

**Institution** Aalto University  
, , Finland

**Date Posted** Apr. 25, 2024

**Application Deadline** Open until filled

**Position Start Date** Available immediately

**Job Categories** Post-Doc

**Academic Field(s)** Civil Engineering

**Job Website** [https://aalto.wd3.myworkdayjobs.com/aalto/job/Otaniemi-Espoo-Finland/Postdoctoral-Researcher--Large-scale-Hydrological-Changes\\_R39522](https://aalto.wd3.myworkdayjobs.com/aalto/job/Otaniemi-Espoo-Finland/Postdoctoral-Researcher--Large-scale-Hydrological-Changes_R39522)

**Apply By Email**

**Job Description**

Aalto University is where science and art meet technology and business. We shape a sustainable future by making research breakthroughs in and across our disciplines, sparking the game changers of tomorrow and creating novel solutions to major global challenges. Our community is made up of 13 000 students, 400 professors and close to 4 500 other faculty and staff working on our dynamic campus in Espoo, Greater Helsinki, Finland. Diversity is part of who we are, and we actively work to ensure our community's diversity and inclusiveness. This is why we warmly encourage qualified candidates from all backgrounds to join our community.

Postdoctoral researcher in large-scale hydrological changes

Aalto University invites applications for one postdoctoral researcher position within the Water and Environmental Engineering Research Group WAT ([url=https://www.aalto.fi/en/department-of-built-](https://www.aalto.fi/en/department-of-built-)

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environment/water-and-environmental-engineering]<https://www.aalto.fi/en/department-of-built-environment/water-and-environmental-engineering>). The position is related to our new Digital Waters (DIWA) Flagship, implemented by a multidisciplinary consortium of several universities and research institutes in Finland (<http://www.digitalwaters.fi>)/[www.digitalwaters.fi](http://www.digitalwaters.fi)). DIWA's goal is to secure water for people and ecosystems through integrated and sustainable practices and novel digital solutions. The postdoc will work on DIWA's Research Theme 5 'Transformative Water Management', and particularly themes related to past and future changes in hydrological conditions using data cube and machine learning algorithms. The position will be filled until the end of year 2027.

This open postdoc position focuses on evaluating the impact of climate change on hydrological conditions by utilizing global historical data from observations and reanalysis products. The aim is to create a comprehensive hydrometeorological data cube that allows us to compare these trends across areas using machine learning algorithms. The derived results will then be used to project future changes in reference areas with similar baseline characteristics to 'source'; areas and are expected to have the same response to climate alterations.

### Requirements

The applicant is expected to have a strong drive towards excellence in science and have an ability for innovative thinking both individually and within a team.

The position requires a doctoral degree from the relevant field, such as hydrology, physical geography, geoinformatics, data science, or water resources management. The doctoral degree should have been awarded within the past 5 years. We accept applications from persons at the final stage of their doctoral studies, but we expect you to have your doctoral degree completed before starting in the position.

The applicant should have: \* Strong analytical skills in analyzing large spatiotemporal datasets \* Good expertise with high-level programming language(s) such as Python, R, or Matlab \* Experience with machine learning algorithms \* Fluent written and oral communication skills in English.

In addition, following are particularly meriting: \* Experience with global hydrological models and reanalysis products. \* Familiarity with trend detection and attribution techniques. \* In-depth understanding of how hydrological variables are likely to respond to future climate change. \* Expertise in hydroclimatology or similar, with a focus on either temperature, precipitation, streamflow, or soil moisture.

### What we offer

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Successful applicants will join a young and dynamic team of world-class researchers at Aalto University's Water and Environmental Engineering Research Group WAT, while also being an active and important member of the DIWA flagship community. \* We offer you an interesting job in an inspiring and multidisciplinary work environment. We will familiarize you with your work tasks, and you will be part of a competent team that will provide you with support for your tasks. \* You will also become an important part of a wide and unique network of doctoral researchers, early career and senior researchers within the DIWA Flagship \* We encourage and offer opportunities for continuous development of your own expertise \* The contract includes Aalto University's extensive occupational health care \* We work in a hybrid way with flexible office hours, and the primary workplace is at our active university campus in Otaniemi, Espoo.

Funding for the postdoctoral researcher position is available until the end of 2027. The expected starting date is as soon as possible.

Aalto University follows the salary system of Finnish universities. The starting salary for postdoctoral researchers at Aalto University is currently around 3900 € per month (gross), which may be gradually increased over time according to performance. The annual total workload of research and teaching staff at Aalto University is 1612 hours.

Ready to apply?

Please submit your application through our eRecruitment system (click the Apply now! link on this page) by Wednesday 22nd of May (midnight Finnish time). Please include the following documents in English as a single pdf-file ('lastname\_firstname\_application.pdf'): \* Letter of Motivation (max 1 page), where you introduce yourself and describe your motivation for the position. Also, clearly indicate your relevant competences and skills related to the positions. \* Curriculum Vitae (max 2 pages), including contact details of two relevant referees. You are also encouraged to include links to your possible LinkedIn page or other similar website. \* List of Publications, including a link to your Doctoral Thesis (if available)

Please note Aalto University's employees and visitors should apply for the position via our internal system Workday -&gt; find jobs (not external aalto.fi webpage on open positions).

Kindly note that we will start to go through the applications and may also invite suitable candidates for interview during the application period. The position will be filled as soon as suitable candidate is identified: this can happen already before the application period closes. You are thus encouraged to submit your application as soon as possible.

Aalto University reserves the right to leave the position open, extend the application period, re-open

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the application process, and to consider candidates who have not submitted applications during the application period.

Our workplace values equality and diversity, and we therefore encourage qualified applicants from all backgrounds to apply for our open position.

#### Further information

Further information about working at Aalto University can be found from these websites:

[url=https://www.aalto.fi/en/node/118186]https://www.aalto.fi/en/careers-at-aalto

[url=https://www.aalto.fi/aalto-university/international-staff-information-

package]https://www.aalto.fi/aalto-university/international-staff-information-package

More information about the position can be asked from Associate Professor Matti Kummu (matti.kummu@aalto.fi). For questions about recruitment, please contact HR Advisor Kirsi Kärkkäinen (kirsi.karkkainen@aalto.fi).

#### Contact Information

Please reference Academickeys in your cover letter when applying for or inquiring about this job announcement.

#### Contact

Finland