

14 Doctoral Researchers for the Doctoral Education Pilot  
for Mathematics of Sensing, Imaging and Modelling  
(DREAM)  
Aalto University

Direct Link: <https://www.AcademicKeys.com/r?job=233520>

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Posted Mar. 26, 2024, set to expire Dec. 30, 2024

**Job Title** 14 Doctoral Researchers for the Doctoral Education  
Pilot for Mathematics of Sensing, Imaging and  
Modelling (DREAM)

**Department**

**Institution** Aalto University  
, , Finland

**Date Posted** Mar. 26, 2024

**Application Deadline** Open until filled

**Position Start Date** Available immediately

**Job Categories** Graduate Student

**Academic Field(s)** Physics - General  
Mathematics/Applied Mathematics

**Job Website** [https://aalto.wd3.myworkdayjobs.com/aalto/job/Otaniemi-Espoo-Finland/XMLNAME-14-Doctoral-Researchers-for-the-Doctoral-Education-Pilot-for-Mathematics-of-Sensing--Imaging-and-Modelling--DREAM-\\_R39173](https://aalto.wd3.myworkdayjobs.com/aalto/job/Otaniemi-Espoo-Finland/XMLNAME-14-Doctoral-Researchers-for-the-Doctoral-Education-Pilot-for-Mathematics-of-Sensing--Imaging-and-Modelling--DREAM-_R39173)

**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.

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Doctoral Education Pilot for Mathematics of Sensing, Imaging and Modelling (DREAM) educates experts in a diverse and multidisciplinary setting, encompassing applied mathematics, physics, engineering, and applied sciences. DREAM brings together experts in the fields of the Flagship of Advanced Mathematics for Sensing, Imaging and Modelling (FAME) and trains the next generation of professionals to answer the needs of industry and society.

The DREAM doctoral pilot is looking for fourteen (14) Doctoral Researchers:

(A) Eight (8) researchers will work at the Department of Mathematics and Systems Analysis ([url=https://math.aalto.fi/en/]https://math.aalto.fi/en/) and the Department of Applied Physics ([url=https://www.aalto.fi/en/department-of-applied-physics]https://www.aalto.fi/en/department-of-applied-physics) in Aalto University School of Science. The positions focus on applied inverse problems, complex systems and materials, computational imaging, modeling, numerical analysis, uncertainty quantification, scientific computing, and/or a closely related field of applied mathematics or physics.

The doctoral researchers will be supervised by \* Professor [url=https://www.aalto.fi/en/people/mikko-alava/]Mikko Alava (Department of Applied Physics), \* Associate Professor [url=https://math.aalto.fi/en/people/antti.hannukainen]Antti Hannukainen (Department of Mathematics and Systems Analysis), \* Professor [url=https://math.aalto.fi/en/people/nuutti.hyvonen]Nuutti Hyvönen (Department of Mathematics and Systems Analysis), \* Associate Professor [url=https://math.aalto.fi/en/people/vanni.noferini]Vanni Noferini (Department of Mathematics and Systems Analysis).

(B) Six (6) researchers will work at the Department of Neuroscience and Biomedical Engineering ([url=https://www.aalto.fi/department-of-neuroscience-and-biomedical-engineering%29]https://www.aalto.fi/department-of-neuroscience-and-biomedical-engineering) in Aalto University School of Science. The positions focus on medical imaging (diffuse optical tomography, magneto- and electroencephalography, ultrasound, multimodal imaging) in projects ranging from experimental research to computational data analysis and modelling.

The doctoral researchers will be supervised by \* Assistant Professor Heikki Nieminen \* Professor Lauri Parkkonen \* Assistant Professor Hanna Renvall

The positions primarily involve research with the goal of a doctoral degree, but all doctoral researchers may also be required to participate in teaching as teaching assistants.

The positions are located at the Aalto University's Otaniemi Campus in Espoo, in the Greater Helsinki

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area. They will be filled between 1 August 2024 and 1 January 2025, the exact start date is negotiable.

### Requirements

An applicant must have completed before the start of the employment: \* a master's degree awarded by a university, or \* a study programme that in the awarding country gives eligibility for doctoral level studies

in Mathematics, Physics, or a closely related field. A good command of English is required, Finnish language is not.

Applicants must fulfill the admission criteria of the Aalto Doctoral Programme in Science and, if chosen for a position, apply for, obtain, and accept the right to pursue doctoral studies at Aalto University. For more information on the general requirements and the application process for doctoral studies, please visit [\[url=https://www.aalto.fi/en/doctoral-education\]](https://www.aalto.fi/en/doctoral-education)<https://www.aalto.fi/en/doctoral-education>.

### Salary and duration

The employment contracts will be made for three years, and they include occupational health care. The starting salary is 2 746 € per month, with scheduled raises. The annual total workload is 1612 hours.

### What we offer

The DREAM doctoral pilot enables completing a doctoral degree in an inspiring multidisciplinary environment, with possibilities to collaborate with stakeholders in industry and society. The doctoral researchers will be affiliated with the FAME flagship that is an internationally leading competence centre of applied mathematicians, physicists, and applied scientists from eight universities and research institutes, aiming to boost the Finnish economy and global wellbeing.

### How to apply

Address your application to Professor Nuutti Hyvönen (positions A) or Assistant Professor Hanna Renvall (positions B) and submit it electronically through the 'Apply now' link below. The review of applications will begin on 26 April 2024 (first deadline), and decisions may be made already before the final deadline on 15 May 2024 at 23:59 EET (UTC+3;2). The application material must be in English and must include the following documents as a single file in the PDF format ('lastname\_firstname\_application.pdf'): \* A cover letter, including motivation for applying as well as clearly indicating the preferred supervisor among those listed above; \* Curriculum Vitae; \* Course transcripts of your BSc and MSc studies with grades. It is not necessary that a MSc degree (or comparable) has already been awarded when applying, but it must be before the employment starts; \* A one-page description of your MSc thesis project (or comparable final project), with a link to the thesis if possible; \* Contact details of two referees, who are willing to write recommendation letters if

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contacted.

Candidates may be invited for online interviews.

Please note: Aalto University's employees and visitors must apply for the position via our internal Workday system by using their existing Workday user accounts.

Aalto University reserves the right for justified reasons to consider candidates who have not submitted applications, to reopen the call after the initial deadline, or to leave the positions open.

Aalto University is an equal opportunity employer dedicated to attracting, retaining, and developing our people regardless of gender identity, ethnicity, disability, and age. We encourage applications from all suitably qualified individuals from all sectors of the community.

**Further information**

For additional information on the positions A, please contact Mikko Alava, Antti Hannukainen, Nuutti Hyvönen, or Vanni Noferini

([\[url=mailto:firstname.lastname&#64;aalto.fi\]](mailto:firstname.lastname&#64;aalto.fi)firstname.lastname&#64;aalto.fi); for positions B, please contact Heikki Nieminen, Lauri Parkkonen, or Hanna Renvall

([\[url=mailto:firstname.lastname&#64;aalto.fi\]](mailto:firstname.lastname&#64;aalto.fi)firstname.lastname&#64;aalto.fi).

For information on the recruitment process, please contact HR Partner Johanna Glader  
([\[url=mailto:firstname.lastname&#64;aalto.fi\]](mailto:firstname.lastname&#64;aalto.fi)firstname.lastname&#64;aalto.fi).

**Contact Information**

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

**Contact**

Finland