

Doctoral Researchers for Finnish Quantum Science and  
Technology Doctoral Education Pilot  
Aalto University

Direct Link: <https://www.AcademicKeys.com/r?job=233418>

Downloaded On: May. 9, 2024 10:18am

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

**Job Title** Doctoral Researchers for Finnish Quantum Science  
and Technology Doctoral Education Pilot

**Department**

**Institution** Aalto University  
, , Finland

**Date Posted** Mar. 25, 2024

**Application Deadline** Open until filled

**Position Start Date** Available immediately

**Job Categories** Graduate Student

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

**Job Website** [https://aalto.wd3.myworkdayjobs.com/aalto/job/Otaniemi-Espoo-Finland/Doctoral-Researchers-for-Finnish-Quantum-Science-and-Technology-Doctoral-Education-Pilot\\_R39135-1](https://aalto.wd3.myworkdayjobs.com/aalto/job/Otaniemi-Espoo-Finland/Doctoral-Researchers-for-Finnish-Quantum-Science-and-Technology-Doctoral-Education-Pilot_R39135-1)

**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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We are now looking for

### Doctoral Researchers

Finnish Quantum Science and Technology doctoral education pilot QDOC

([\[url=https://instituteq.fi/qdoc\]](https://instituteq.fi/qdoc)[instituteq.fi/qdoc](https://instituteq.fi/qdoc)) offers 90 Doctoral Researcher positions at 7 universities in Finland. Of these, 40 positions are hosted at Aalto University. QDOC provides a unique opportunity to gain education in quantum science and technology (QST) and benefit from a multidisciplinary network of experts working in academia and industry around Finland. Versatile opportunities are open in theoretical, experimental, and applied physics, chemistry, photonics, computational science, materials science and technology, nanotechnology, electrical engineering and electronics, and economics. Part of the doctoral projects are implemented with our industrial partners, offering an excellent opportunity to build a seamless career path from academia to industry. Industry collaboration and networking is leveraged throughout the doctoral studies, to maximize the career prospects of the students. All QDOC students will participate in common networking events and annual summer/winter schools.

To see details of the available QDOC projects at Aalto please follow this link:

([\[url=https://www.aalto.fi/en/doctoral-education-pilot/quantum-doctoral-qdoc-projects-at-aalto-university\]](https://www.aalto.fi/en/doctoral-education-pilot/quantum-doctoral-qdoc-projects-at-aalto-university)[Quantum Doctoral \(QDOC\) projects at Aalto University | Aalto University](https://www.aalto.fi/en/doctoral-education-pilot/quantum-doctoral-qdoc-projects-at-aalto-university)

### Scientific environment

The research in quantum science and technology at Aalto University is strong in several selected areas. These include superconducting technologies, quantum materials, integrated quantum photonics, quantum sensing and applications, quantum computers, algorithms and software, quantum information processing, quantum communications engineering, quantum foundations, and market emergence of deep technologies.

Global QST research and industry have grown significantly in the last decade. Aalto University is at the international front line in its QST specialty areas, and QDOC network extends opportunities to collaborate and take studies from the partner universities, bringing a unique selection of opportunities available for all QDOC doctoral researchers. Our academic community is completed with VTT Technical Research Centre of Finland, CSC IT center for science, and 50&#43; collaborating companies, providing a comprehensive QST ecosystem for doctoral training in Finland. QDOC is part of the national education development actions of InstituteQ ([\[url=https://instituteq.fi\]](https://instituteq.fi)[instituteq.fi](https://instituteq.fi)), implemented in line with the new Finnish Quantum flagship FQF ([\[url=https://instituteq.fi/finnish-quantum-flagship\]](https://instituteq.fi/finnish-quantum-flagship)[instituteq.fi/finnish-quantum-flagship](https://instituteq.fi/finnish-quantum-flagship)).

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Our scientific environment is supported by state-of-the-art research facilities. At Aalto, our key assets are the national large scale research infrastructure [[url=http://otanano.fi](http://otanano.fi)]OtaNano that provides advanced nanofabrication, nanomicroscopy, and ultra-low temperature measurement facilities to develop novel materials and structures for QST, and Finnish Quantum Computing Infrastructure ([[url=https://fiqci.fi](https://fiqci.fi)])FiQCI that is under vigorous development for provision of computing time and training to educate new experts in this emerging area of interest.

Aalto University collaborates closely with other universities in the Nordic region, and the university has an extended network of partner organizations in Europe and overseas. Frequent exchange of staff and students between these environments forms a cornerstone of quantum science technology research and education.

### Your role

You will work as a member of a research team at Aalto University, and co-instructed by a collaborator in academia or industry, depending on the selected project. You are expected to pursue your doctoral studies and a research project according to a jointly agreed plan. Project specific research tasks are described with individual QDOC projects.

### Your experience and ambitions

We are looking for master's graduates with project relevant experience and the ability to work as part of a research team in English. You have an MSc degree in the field of physics, mathematics, computational science, nanoscience, nanotechnology, electrical engineering, economics, or a closely related field. You also have a keen interest to work in a multidisciplinary environment and pursue theoretical and/or experimental research.

### Formal requirements

Applicants must fulfill the admission criteria of the Aalto Doctoral Programme 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/how-to-apply-for-doctoral-studies](https://www.aalto.fi/en/doctoral-education/how-to-apply-for-doctoral-studies)].<https://www.aalto.fi/en/doctoral-education/how-to-apply-for-doctoral-studies>. \* Completed master's degree by the day before the start date of the employment. For example, by 31 July 2024 or preferably earlier (to start employment on 1 August 2024). \* Proficiency in English (typically demonstrated during the admission to the doctoral programme with an official certificate, e.g., IELTS/TOEFL)

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What we offer \* Opportunity to work in a dynamic community of world-class researchers and professionals where students are rigorously selected and highly motivated. This leads to an exceptionally interactive and intellectually challenging atmosphere at Aalto. \* An interesting job in an inspiring work environment. You will be able to work in a community where we promote socially significant goals in science and education. We will familiarize you with your tasks and you will be part of a nice and competent team that will provide you with support for your work tasks also in the future. We encourage and offer opportunities for continuous development of your own expertise. \* The positions are fully funded for three years with the funding from the Finnish Ministry of Education and Culture. Contract includes a prerequisite to apply, receive and accept doctoral study right within the probation period of the first 6 months. \* Aalto University follows the salary system of Finnish universities. The starting salary is approximately 2700 €/month (gross), and it increases as the Doctoral Researcher progresses in the research and studies. \* The contract includes Aalto University occupational healthcare. Aalto University provides excellent learning and development opportunities, and a commuter ticket benefit. Unisport offers versatile sports facilities and exercise services with a staff discount. \* We work in a hybrid way, and the primary workplace is Otaniemi, Espoo. The Otaniemi campus is a thriving and connected community of 100 nationalities. Life at the campus is vibrant and filled with amazing architecture, calming nature, and a variety of cafes, restaurants, services and good connections along the metro and city train lines. See how the campus looks like on our virtual tour: [\[url=https://virtualtour.aalto.fi/\]https://virtualtour.aalto.fi/](https://virtualtour.aalto.fi/)

Join us!

Join us now in promoting an efficient yet peaceful second quantum revolution via your unique research input! You can apply to max. 5 research projects. Please list them in the order of preference in the application form. To apply, please submit the following application materials through our [aalto.fi](https://aalto.fi) recruitment site by 24th April 2024 Finnish time. Click “Apply now”.

Please note: Aalto University’s employees should apply for the position via our internal HR system Workday (Internal Jobs) by using their existing Workday user account (not via the external webpage for open positions). Aalto University’s students and visitors should apply as external candidates with personal (not aalto) email.

All material should be submitted in English and in pdf-format, up to five (5) files of a maximum size of 5mb. Application material should include:

1. Letter of motivation (max. one page). Please describe your background, and in particular the reasons for selecting the doctoral researcher path and your preferred project(s).
2. A curriculum vitae and possible list of publications with complete study and employment history,

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contact details of two referees. We will contact your referees, if recommendation letters are required.  
(Please see CV example

[url=https://view.officeapps.live.com/op/view.aspx?src=&https%3A%2F%2Ftenk.fi%2Fsites%2Fdefault%2F06%2FTENK\_CV\_template\_2020.docx&wdOrigin=&BROWSELINK]TENK\_CV\_template\_2020.docx  
(live.com) )

3. A study transcript provided by the applicant's university that lists studies completed and grades achieved.

4. A copy of the M.Sc. degree certificate (officially translated in to Finnish, English or Swedish). In the Finnish university system, a person must have a Master's degree in order to enroll for doctoral studies. If the degree is still pending, then a plan for its completion must be provided.

We will go through applications, and we will invite suitable candidates to interview already during the application period. The expected starting date in the position is between the 1st August 2024 and 1st January 2025 and can be discussed. Presence in Finland for the duration of the contract is compulsory.

Aalto University reserves the right to leave the position open, extend the application period, reopen the application process, and consider candidates who have not submitted applications during the application period.

Any questions?

For additional information of a specific doctoral project, kindly contact the supervisor indicated in the individual QDOC project (firstname.lastname(at)aalto.fi). Please see the supervisors here:

[url=https://www.aalto.fi/en/doctoral-education-pilot/quantum-doctoral-qdoc-projects-at-aalto-university]Quantum Doctoral (QDOC) projects at Aalto University | Aalto University

For questions about QDOC doctoral training pilot, please contact Prof. Adam Foster (firstname.lastname(at)aalto.fi).

For questions about applying, please contact HR Advisor Hanna Multisilta (firstname.lastname(at)aalto.fi).

Want to know more about us and your future colleagues? You can watch these videos:

[url=https://www.youtube.com/watch?v=&5k\_og\_6zUJQ]Aalto University - Towards a better world,

[url=https://www.youtube.com/watch?v=&dUfEGVM-ZP8&feature=&youtu.be]Aalto People, and

[url=https://www.youtube.com/watch?v=&ZK6pDWm1\_CE]Shaping a Sustainable Future.

For more information about living in Finland: [url=https://www.aalto.fi/en/careers-at-aalto/for-

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international-staff]<https://www.aalto.fi/en/careers-at-aalto/for-international-staff> .

Read more about working at Aalto: [url=<https://www.aalto.fi/en/careers-at-aalto>]<https://www.aalto.fi/en/careers-at-aalto>

### About Finland

Finland is a great place for living with or without family - it is a safe, politically stable and well-organized Nordic society. Finland is consistently ranked high in quality of life and was just listed again as the happiest country in the world: [url=<https://worldhappiness.report/news/its-a-three-peat-finland-keeps-top-spot-as-happiest-country-in-world/>]<https://worldhappiness.report/news/its-a-three-peat-finland-keeps-top-spot-as-happiest-country-in-world/> . For more information about living in Finland: [url=<https://www.aalto.fi/en/careers-at-aalto/living-in-finland>]<https://www.aalto.fi/en/careers-at-aalto/living-in-finland>.

### Contact Information

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

### Contact

Finland