

Doctoral Researcher Position to Study Condensation of
Water at Nanoscale
Aalto University

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Job Title	Doctoral Researcher Position to Study Condensation of Water at Nanoscale
Department	T304 Dept. Applied Physics
Institution	Aalto University , , Finland
Date Posted	Nov. 10, 2025
Application Deadline	Open until filled
Position Start Date	Available immediately
Job Categories	Graduate Student
Academic Field(s)	Physics - General
Job Website	https://aalto.wd3.myworkdayjobs.com/aalto/job/Otaniemi-Espoo-Finland/Doctoral-Researcher-Position-to-Study-Condensation-of-Water-at-Nanoscale_R44702-2

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.

At the Department of Applied Physics, our pioneering research in physical sciences creates important industrial applications that hold great technological potential. Our research focuses on Materials physics, Quantum technology, Soft & living matter, and Advanced energy solutions. Topics extend

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from fundamental research to important applications. We educate future generations of research and development professionals, data specialists, technology experts, inventors, and scientists for industry and society.

A Doctoral Researcher position to study condensation and interfacial phase change at nanoscale is available at the Soft Matter and Wetting (SMW) group, Department of Applied Physics (School of Science) at Aalto University. We are looking for an enthusiastic doctoral researcher to experimentally investigate condensation processes at surfaces with molecular precision. The work focuses on developing advanced methods for controlling wetting and nucleation, combining cutting-edge surface engineering with high-resolution experimental techniques. Potential applications span from energy-efficient heat exchangers and water-harvesting surfaces to antifogging and anti-icing coatings. We expect the ideal candidate to be passionate about exploring new frontiers in interfacial science and eager to push beyond the current state of the art, aiming at obtaining a PhD degree. Our research is curiosity-driven, interdisciplinary, and highly collaborative.

Your role and goals * Design and conduct experiments on condensation and interfacial phase change at nanoscale. * Develop and apply advanced surface modification and characterization techniques. * Collaborate with a diverse team of physicists, chemists, and engineers. * Present findings in scientific journals and at international conferences.

Your network and team

The Doctoral Researcher will be based in Department of Applied Physics, Aalto University at the SMW group. SMW is a multidisciplinary team studying functional soft materials and surface wettability and developing wetting characterization instruments. More information about our group can be found in: <http://physics.aalto.fi/smw>

Your experience and ambitions

We offer a hands-on, multidisciplinary research environment combining experimental surface physics, nanotechnology, and fluid dynamics. In return, we are looking for a candidate who has: * A suitable academic background in physics, chemistry (physical chemistry), fluid mechanics, or a related field * Strong interest (and experience) in thermodynamics, interfacial science, phase change phenomena, or micro/nanoscale heat transfer * Good data analysis and programming skills (e.g., Python, MATLAB, or similar) * Strong motivation, good communication skills, and the ability to work both independently and as part of a team * Proficiency in English (Finnish is not required)

What we offer

The doctoral researcher position will be based in Department of Applied Physics, Aalto University with high-tech facilities in this department along with the facilities in Micronova and OtaNano. OtaNano

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offers a wide variety of fabrication processes and equipment for micro- and nanostructures. The facilities cover a comprehensive range of equipment, including atomic layer deposition devices, electron microscopy, x-ray scattering, ellipsometry, spectroscopic equipment, etc.

The position of the Doctoral Researcher is initially filled for 2 years. The contract is continued for another 2 years after a successful midterm review. The annual workload of research and teaching staff at Aalto University is 1612 hours. Aalto University follows the salary system of Finnish universities. The starting salary is approximately 2815 €/month (gross), and it increases as the Doctoral Researcher progresses in the research and studies. The contract includes Aalto University occupational healthcare.

We value a healthy work-life balance and actively support personal and professional development. You will have opportunities to collaborate with leading academic and industry partners.

Join us!

If you would like to be considered for the position, please submit your application in English through our recruitment system by clicking the link "Apply now!" on our webpage.

To apply, please share the following application materials with us: * CV * Motivation letter * Study transcripts * Contact details of at least two referees

Kindly apply before the deadline - 15.01.2026. We encourage you to apply as soon as possible since we aim to fill this position as soon as a suitable candidate is found. Aalto University reserves the right for justified reasons 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.

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.

More information

If you wish to hear more about the position, you can reach out to Prof. Robin Ras ([url=mailto:robin.ras@aalto.fi]robin.ras@aalto.fi), or Dr. Ali Afzalifar (ali.afzalifar@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. Read more about working at Aalto: [url=https://www.aalto.fi/en/careers-at-aalto]Careers at Aalto | Aalto

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University

Check out our new virtual campus experience: [\[url=https://virtualtour.aalto.fi/\]](https://virtualtour.aalto.fi/)Aalto University - virtual campus tour

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/)<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)Living in Finland | Aalto University and [\[url=https://www.aalto.fi/en/careers-at-aalto/for-international-staff\]](https://www.aalto.fi/en/careers-at-aalto/for-international-staff)For international staff | Aalto University

Contact Information

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

Contact

Finland