Postdoctoral Researcher positions in the field of Computational Materials Science
Aalto University

Job Title	Postdoctoral Researcher positions in the field of Computational Materials Science
Department	T304 Dept. Applied Physics
Institution	Aalto University , , Finland
Date Posted	Dec. 2, 2024
Application Deadline	Open until filled
Position Start Date	Available immediately
Job Categories	Post-Doc
Academic Field(s)	Physics - General
Job Website	https://aalto.wd3.myworkdayjobs.com/aalto/job/Otaniemi-Espoo-Finland/Postdoctoral-Researcher-positions-in-the-field-of-Computational-Materials-Science_R41572-4
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.

The Department of Applied Physics is now inviting applications for

Postdoctoral Researcher fixed-term positions in the field of Computational Materials Science

The Nuclear Materials and Engineering (NuME) group at Aalto University employs computational methods to study radiation induced processes and damage formation in materials, including effects ranging from electron excitation to large scale collision cascades involving millions of atoms. We are now looking for two exceptional and motivated postdoctoral researchers to strengthen our team. You would be joining a young and dynamic group pursuing a range of research topics with extensive national and international collaboration. In these positions, you will have a chance to make an impact on the development of materials for high radiation environments, and contribute to the increased understanding of the fundamental processes involved when energetic particles interact with condensed matter. We utilize extensive computational resources for advanced calculations at the forefront of our field.

More about the NuME group: [url=https://www.aalto.fi/en/department-of-applied-physics/nuclear-materials-and-engineering-nume]https://www.aalto.fi/en/department-of-applied-physics/nuclear-materials-and-engineering-nume

Your role and goals

The successful candidates will be expected to make significant personal contributions to the research program of the group, work independently, and publish peer-reviewed articles in high-impact journals. The work will be carried out in collaboration with a range of academic partners. As a member of the group, you will partake in group meetings, presenting your research progress there, and supervise Bachelor’s, Master’s and PhD students. In addition, you may participate in teaching activities at the Department.

Your research will focus on the study of radiation-induced damage in semiconductor materials, investigating the formation mechanisms of defects, and exploring methods for identification of defect structures observed by transmission electron microscopy, through the use of simulated electron microscope images. The work will also involve method and code development.

Your experience

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A university PhD degree in computational physics or materials science, computational chemistry, or a related field is a requirement to be considered for this position. The successful candidates will have demonstrated proficiency in the following areas: * firm knowledge of materials science and condensed matter physics * experience with atomistic modelling and high performance computing environments * solid programming skills * familiarity with computing in electron microscopy is considered a plus * experience with machine learning methods is considered a plus * strong command of written and spoken English (Finnish language is not required)

What we offer

Aalto University follows the salary system of Finnish universities. The starting level salary of a postdoc is approximately 4 030 €/month (gross), with a possible increase based on experience. The positions are offered for an initial period of two years, with the possibility of extension for a third year. The annual workload of research and teaching staff at Aalto University is currently 1612 hours. The contract includes Aalto University occupational healthcare.

The primary workplace will be the Otaniemi Campus at Aalto University.

Join us!

To apply for the position, please submit your application including the attachments listed below as one single PDF document in English, through our recruitment site (click the button ’Apply now!’) * Letter of motivation * CV including list of publications * Degree certificates and academic transcripts * Letters of recommendation from at least two referees

For content-related questions about the position, kindly contact Prof. Andrea Sand, while recruitment-related questions may be directed to HR Advisor Hanna Multisilta, at firstname.lastname@aalto.fi.

The deadline for applications is the 15th of January, 2025, and the positions will be filled as soon as possible. The starting time of the employment is negotiable, but preference will be given to candidates who can start as soon as possible. Aalto University reserves the right for justified reasons to leave the position open, to extend the application period, reopen the application process, and to consider candidates who have not submitted applications during the application period. Late applications will be considered if the positions have not been filled.

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

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open positions). Aalto University’s students and visitors should apply as external candidates with personal (not aalto) email.

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]https://www.aalto.fi/en/careers-at-aalto

Check out our new virtual campus experience: [url=https://virtualtour.aalto.fi/]https://virtualtour.aalto.fi/

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

Contact Information

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

Contact

Finland