Doctoral Researcher (PhD student) in the field of Computational Materials Science
Aalto University

Job Title	Doctoral Researcher (PhD student) in the field of Computational Materials Science
Department	T304 Dept. Applied Physics
Institution	Aalto University , , Finland
Date Posted	May 30, 2024
Application Deadline	Open until filled
Position Start Date	Available immediately
Job Categories	Graduate Student
Academic Field(s)	Physics - General Materials Sciences/Polymer Sciences
Job Website	https://aalto.wd3.myworkdayjobs.com/aalto/job/Otaniemi-Espoo-Finland/Doctoral-Researcher--PhD-student--in-the-field-of-Computational-Materials-Science_R39895-2
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

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physics, Quantum technology, Soft & living matter, and Advanced energy solutions. Topics extend 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 a

Doctoral Researcher (PhD Student) Position 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 a bright and motivated student to join our team. In this position, you will have a chance to 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

Your main tasks will involve performing and analysing large scale simulations of radiation effects in fusion reactor materials, using the supercomputing resources available to the group. The main computational tool will be molecular dynamics, implemented with a range of extensions useful for modelling non-equilibrium processes.You will work independently, but with the close support and supervision of the senior researchers in the group, and of the group leader Prof. Andrea Sand. This position will allow you to deepen your knowledge of materials science, to further develop skills in computing and programming, as well as in scientific writing and presenting, and to grow into an independent researcher. You will be expected to complete a PhD thesis within four years. As a member of the group, you will partake in group meetings, presenting your research progress there, and co-supervise Bachelors and Master’s students. In addition, PhD students are expected to participate in teaching activities at the Department as course assistants.

Your experience

A Master’s degree in computational physics or materials science, computational chemistry, or a related

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field is a requirement to be considered for this position. To be successful in this position, proficiency in the following areas are required: * demonstrated programming and/or scripting skills * materials science or solid state physics background * experience with numerical modelling * strong command of written and spoken English (Finnish language is not required) * experience with HPC is not crucial, but will be considered a plus

Applications are especially encouraged from women and other minority groups. An excellent study record in physics or a related field is expected.

What we offer

Aalto University follows the salary system of Finnish universities. The starting salary of Doctoral Researcher is approximately 2700 €/month (gross), and it increases as you progress in your research and studies. Following the standard practice in the Department of Applied Physics, the contract will be made initially for two years, then extended to another two years after a successful mid-term progress review. The total duration of Ph.D. studies is four years. 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 mentioned below as one single PDF document in English through our recruitment site (’Apply now!’) * Letter of motivation * CV including list of publications * Degree certificates and academic transcripts * Contact details of at least two referees (or letters of recommendation, if already available)

For additional information, kindly contact Prof. Andrea Sand at firstname.lastname@aalto.fi.

The deadline for applications is the 21st of June, 2024. We will go through applications, and we may invite suitable candidates to interview already during the application period. The start of the employment is negotiable, but will be expected to begin in the autumn. 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.

Please note: Aalto University’s employees and visitors should apply for the position via our internal

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system Workday --> Internal Jobs by using their existing Workday user account.

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/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