Norwegian University of Life Sciences

Jobbnorge ID: 212843
Deadline: 10/25/2021
Website: http://www.nmbu.no
Scope: Fulltime
Duration: Project

Are you up for a challenge?

Postdoctoral fellow within computational modelling of exciton dispersion in solids and 2d heterostructures

About the position

The Department of Mechanical Engineering and Technology Management, Faculty of Science and Technology at the Norwegian University of Life Sciences (NMBU) has a vacant three-year postdoctoral fellowship position related to computational modelling of electronic-band structure and exciton dispersion in solids and 2D heterostructures.

The project is a close collaboration with the Electron-Energy-Loss Spectroscopy group at University of Oslo and international partners, including Professor Christoph T. Koch and the Humboldt University of Berlin.

As a post doc you will play key role in developing the Material-Theory-And-Informatics group at the Norwegian University of Life Sciences (NMBU), a young vibrant research group led by Associate Professor Kristian Berland: https://www.nmbu.no/en/groups/realtek/materialtheory

As part of the fellowship, you will be encouraged and expected to make one or several research stays at top-research environment within our research network, including the Kristian Thygensen group at the Computational Atomic-scale Materials Design at DTU.

You will be expected to start in the first quarter of 2022 and to relocate to the Oslo region.

The project is part of the MORTY project funded by the Research Council of Norway.

Main tasks

Research tasks include

- Density functional theory (DFT) calculations of solids and heterostructures.
- Finite momentum GW-BSE calculations.
- Developing computational tools for concentered theory-experiment analysis of EELS data together with experimentalists.

The main purpose of the post-doctoral position is to qualify for work in high-level scientific positions. A PhD degree is required.

Competence

Required Academic qualifications

- A completed PhD in Physics, Material Science or equivalent.
- Candidates in the process of finalizing their PhD are also encouraged to apply; the requirement being that the PhD is completed prior to starting the position.
- Good track-record of publishing papers in peer-reviewed journals.
- Extensive experience in using plane-wave DFT methods, e.g., VASP and Quantum Espresso.
- Familiarity with Python.
- Strong written and oral skills in English.

The following experiences and skills will be emphasized:

- Extensive experience in calculating exciting-state properties of
- materials using specialized codes for GW/BSE is highly desirable.
- Experience with implementing or developing post-processing tools for analyzing computed or experimental data.
- Strong knowledge of solid-state theory in general.

You need to:

- Be creative, dedicated, and quality oriented.
- Have good ability to work independently and in a systematic fashion.
- Have good collaboration skills.

Remuneration and further information

The position is placed in government pay scale position code 1352 Postdoctoral Fellow, wage framework 24 (salary grade 59-67) (NOK 534.400-615.800), depending on qualifications. Seniority Promotion in position.

For further information, please contact Associate Professor Kristian Berland, E-mail: Kristian.berland@nmbu.no; phone +47 45679296

general Information to applicants

Application

To apply online for this vacancy, please click on the 'Apply for this job' button above. This will route you to the University's Web Recruitment System, where you will need to register an account (if you have not already) and log in before completing the online application form.

Application deadline: 25.10.2021

Up to ten publications selected by the applicant as most relevant must be attached to the application. If it is difficult to identify the contribution of the applicant in multiple-author publications, a short explanation about the applicant's part of the work is suggested.

Printed material which cannot be sent electronically should be sent by surface mail to Norwegian University of Life Sciences, Faculty of Science and Technology P.O. Box 5003, NO-1432 Ås, within 25.10.2021. Please quote reference number 21/04707.

Applicants invited for an interview will be asked to present verified copies of diplomas and certificates.

About The Faculty of Science and Technology

The Faculty of Science and Technology (REALTEK) develops research-based knowledge and educates civil engineers and lecturers needed to reach the UN's sustainability goals. We have approximately 150 employees, 70 PhD students and soon 1500 students. The education and research at REALTEK cover a broad spectrum of disciplines.

This includes data science, mechanics and process engineering, robotics, construction and architecture, industrial economics, environmental physics and renewable energy, geomatics, water and environmental engineering, applied mathematics as well as secondary school teacher education in natural sciences and use of natural resources such as in agriculture, forestry and aquaculture. The workplace is in Ås, 30 km from Oslo.

The Norwegian University of Life Sciences (NMBU)

NMBU has a particular responsibility for research and education that secures the basis for the life of future generations. Sustainability is rooted in everything we do and we deliver knowledge for life. NMBU has 1,800 employees of which about 250 phd scholarships and 6,000 students. The university is divided into seven faculties.

NMBU believes that a good working environment is characterised by diversity.

We encourage qualified candidates to apply regardless of gender, functional ability, cultural background or whether you have been outside the labour market for a period. If necessary, workplace adaptations will be made for persons with disabilities. More information about NMBU is available at www.nmbu.no.

Additional information

Place of service:

Universitetstunet 3 1430 Ås (Ås Municipality)