Jobbnorge ID: 246255
Deadline: 7/7/2023
Website: http://www.ntnu.no
Scope: Fulltime
Duration: Temporary

The Department of physics has a vacancy for a

PhD position in Statistical Physics of Dispersions in Porous Media

This is NTNU

NTNU is a broad-based university with a technical-scientific profile and a focus in professional education. The university is located in three cities with headquarters in Trondheim.

At NTNU, 9,000 employees and 43,000 students work to create knowledge for a better world.

You will find more information about working at NTNU and the application process here.

Video: https://youtu.be/Xt-yHCN5QS0

About the job

We have a vacancy for a PhD position in Soft Matter Physics at PoreLab, Department of Physics, NTNU. The appointments has a duration of 3 years. The PhD student should start no later than October 2023.

The position is organized at the Department of Physics in close collaboration with the Center of Excellence PoreLab.

Information about the Department of Physics

The department is currently in an expansion phase and incorporates a broad activity within physics with activities in solid state physics/material physics, soft/complex and biopolymer physics, medical physics, statistical physics, optics, atmospheric physics, university didactics and astroparticle physics. The department is also since 2017 the hosting institution of two national centers of excellence - Porelab and QuSpin. The department is responsible for the best recruiting physics study programmes in Norway, both within applied and fundamental physics. It also provides a large set of courses within physics for other study programmes at NTNU.

For more information about the department and its activities, see

https://www.ntnu.edu/physics

Information about PoreLab

PoreLab is a Norwegian Center of Excellence under the auspices of the Research Council of Norway. It was created in 2017 and it is situated at the Norwegian University of Science and Technology (NTNU) in Trondheim, and the University of Oslo.

PoreLab is an interdisciplinary center with joint efforts in theory, computer simulations and experiments, both in fundamental and in more applied directions. The center works to advance the understanding of porous media by developing theories, principles, tools and methods to replace ad hoc approaches to porous media with a fundamental understanding of porous media with relevance in biology, chemistry, geology and geophysics based on fluid mechanics, non-equilibrium thermodynamics and statistical mechanics.

Further information about PoreLab can be found here: https://porelab.no/

The position is under supervision of Professor Erika Eiser, PoreLab, Department of Physics, NTNU, Phone: +47 92045497 (erika.eiser@ntnu.no).

Duties of the position

In this project the student will study pressure driven and phoretic flows of complex fluids and dispersions through porous media. The focus of the research will be on the investigation of the physical information contained in the fluctuations of flow velocities and local densities. The experimental work will be carried out in close collaboration with Prof. Raffaela Cabriolu, who is an expert in Molecular Dynamics.

The appointment is to be made in accordance with the regulations in force concerning State Employees and Civil Servants and Regulations concerning the degrees of Philosophiae Doctor (PhD) and Philosodophiae Doctor (PhD) in artistic research national guidelines for appointment as PhD, post doctor and research assistant.

Required selection criteria

- You must have a professionally relevant background in physics
- Your education must correspond to a five-year Norwegian degree program, where 120 credits are obtained at master's level
- You must have a strong academic background from your previous studies and an average grade from the master's degree program, or equivalent education, which is equal to B or better compared with NTNU's grading scale. If you do not have letter grades from previous studies, you must have an equally good academic basis. If you have a weaker grade background, you may be assessed if you can document that you are particularly suitable for a PhD education.
- You must meet the requirements for admission to the faculty's doctoral program.
- You must have experience in experimental soft matter physics.
- Knowledge in computational physics and programming skills is required since the project will demand image and large data analysis.
- Good written and oral English language skills.

The appointment is to be made in accordance with Regulations on terms of employment for positions such as postdoctoral fellow, Phd candidate, research assistant and specialist candidate and Regulations concerning the degrees of Philosophiae Doctor (PhD) and Philosodophiae Doctor (PhD) in artistic research national guidelines for appointment as PhD, post doctor and research assistant

Preferred selection criteria

- Hands-on (lab) experience in experimental physics will be an advantage.

Personal characteristics

- The successful applicant is a highly competent, motivated and ambitious student.
- We are looking for a positive and balanced personality open to new proposals.
- We are looking for candidates who can think creatively and critically,
- and who can work independently and consistently on the research project.
- She/he should also enjoy interdisciplinary research.
- She/he should take keen interest in learning and working in teams.

Emphasis will be placed on personal and interpersonal qualities.

We offer

- exciting and stimulating tasks in a strong international academic environment
- an open and inclusive work environment with dedicated colleagues
- favourable terms in the Norwegian Public Service Pension Fund
- employee benefits

Salary and conditions

As a PhD candidate (code 1017) you are normally paid from gross NOK 532 200 per annum before tax.From the salary, 2% is deducted as a contribution to the Norwegian Public Service Pension Fund.

The period of employment is 3 years.

Appointment to a PhD position requires that you are admitted to the PhD programme in physics within three months of employment, and that you participate in an organized PhD programme during the employment period.

The engagement is to be made in accordance with the regulations in force concerning State Employees and Civil Servants, and the acts relating to Control of the Export of Strategic Goods, Services and Technology. Candidates who by assessment of the application and attachment are seen to conflict with the criteria in the latter law will be prohibited from recruitment to NTNU. After the appointment you must assume that there may be changes in the area of work.

It is a prerequisite you can be present at and accessible to the institution daily.

About the application

The application and supporting documentation to be used as the basis for the assessment must be in English.

Publications and other scientific work must follow the application. Please note that your application will be considered based solely on information submitted by the application deadline. You must therefore ensure that your application clearly demonstrates how your skills and experience fulfil the criteria specified above.

The application must include:

- CV and certificates
- transcripts and diplomas for bachelor's and master's degrees. If you have not completed the master's degree, you must submit a confirmation that the master's thesis has been submitted.
- A copy of the master's thesis. If you recently have submitted your master's thesis, you can attach a draft of the thesis. Documentation of a completed master's degree must be presented before taking up the position.
- Name and contact information of three referees
- If you have publications or other relevant research work

If all, or parts, of your education has been taken abroad, we also ask you to attach documentation of the scope and quality of your entire education, both bachelor's and master's education, in addition to other higher education. Description of the documentation required can be found here. If you already have a statement from NOKUT, please attach this as well.

We will take joint work into account. If it is difficult to identify your efforts in the joint work, you must enclose a short description of your participation.

In the evaluation of which candidate is best qualified, emphasis will be placed on education, experience and personal and interpersonal qualities. Motivation, ambitions, and potential will also count in the assessment of the candidates.

NTNU is committed to following evaluation criteria for research quality according to The San Francisco Declaration on Research Assessment - DORA.

General information

Working at NTNU

NTNU believes that inclusion and diversity is our strength. We want to recruit people with different competencies, educational backgrounds, life experiences and perspectives to contribute to solving our social responsibilities within education and research. We will facilitate for our employees' needs.

NTNU is working actively to increase the number of women employed in scientific positions and has a number of resources to promote equality.

The city of Trondheim is a modern European city with a rich cultural scene. Trondheim is the innovation capital of Norway with a population of 200,000. The Norwegian welfare state, including healthcare, schools, kindergartens and overall equality, is probably the best of its kind in the world. Professional subsidized day-care for children is easily available. Furthermore, Trondheim offers great opportunities for education (including international schools) and possibilities to enjoy nature, culture and family life and has low crime rates and clean air quality.

As an employee at NTNU, you must at all times adhere to the changes that the development in the subject entails and the organizational changes that are adopted.

A public list of applicants with name, age, job title and municipality of residence is prepared after the application deadline. If you want to reserve yourself from entry on the public applicant list, this must be justified. Assessment will be made in accordance with current legislation. You will be notified if the reservation is not accepted.

If you have any questions about the position, please contact Professor Erika Eiser, telephone +47 73593649, email erika.eiser@ntnu.no.

If you think this looks interesting and in line with your qualifications, please submit your application electronically via jobbnorge.no with your CV, diplomas and certificates attached. Applications submitted elsewhere will not be considered. Upon request, you must be able to obtain certified copies of your documentation.

Application deadline: 30.06.23

NTNU - knowledge for a better world

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The Norwegian University of Science and Technology (NTNU) creates knowledge for a better world and solutions that can change everyday life.

Department of Physics

Our research and teaching are both experimental and theoretical, covering a wide range of disciplines. Our activities contribute to development of new medical technology and to finding solutions for the next generation's communication technology, energy utilization and development of materials. The Department of Physics is one of eight departments in the Faculty of Natural Sciences.

Additional information

Place of service:

Høgskoleringen 5 7034 Trondheim (Trondheim Municipality)