Norwegian University of Life Sciences

Jobbnorge ID: 223712
Deadline: 5/31/2022
Website: http://www.nmbu.no
Scope: Fulltime
Duration: Fixed Term

Do you want to work on numerical methods with applications in physics and machine learning?

PhD position within numerical analysis

About the position

The Faculty of Science and Technology at the Norwegian University of Life Sciences (NMBU) has a vacant PhD-position related to numerical analysis. The PhD position is for a period of 3 years, or up to 4 years if teaching and other work duties are agreed.

The exact aims of the PhD project will depend on the interests of the candidate.

The general aims are to develop new variational integrators, and/or understand and analyze the behaviour of variational integrators applied to mathematical models used in physics and machine learning.

Possible research areas include:

- Geometric/structure-preserving numerical methods for differential equations.
- Connections between numerical methods and neural networks.

An application for a PhD position at NMBU is at the same time an application for admission to a PhD programme at the institution. The documentation that is necessary to ensure that the admission requirements are met must be uploaded as an attachment.

Main tasks

- Research in numerical analysis
- Write software to implement numerical methods.
- Write and publish scientific articles.
- Write a PhD thesis
- Present research in national and international conferences.
- Assist the department in teaching.

The most important factor for the success of a PhD project in mathematics is the candidate's genuine interest in the subject matter. A more detailed plan will therefore be made in collaboration with the candidate within the first months of employment, with a view to obtaining a PhD degree by the end of the employment period.

Competence

The successful applicant must meet the conditions defined for admission to a PhD programme at NMBU. The applicant must have an academically relevant education corresponding to a five-year master's degree or a cand.med.vet. degree, with a learning outcome corresponding to the descriptions in the Norwegian Qualification Framework, second cycle. Candidates submitting MSs thesis within 30. June 2022 may be considered. The applicant must have a documented strong academic background from previous studies and be able to document proficiency in both written and oral English. For more detailed information on the admission criteria please see the PhD Regulations and the relevant PhD programme description.

The applicant must document expertise and interest in the research subject.

Required Academic qualifications

- Master's degree in mathematics or in a related field with an emphasis on mathematics.
- Strong skills in scientific or numerical computing. Both practical and analytical skills are required.

The following experiences and skills will be emphasized:

- Experience and knowledge of numerical analysis and dynamical systems.
- Academic writing skills (in English).

You need to:

- Be curious and interested in research.
- Be independent and hard-working.
- Have good communication and collaborative skills.

Remuneration and further information

The position is placed in government pay scale position code 1017. PhD fellows are normally placed in pay grade 54 (NOK 491.200,-) on the Norwegian Government salary scale upon employment and follow ordinary meriting regulations.

Employment is conducted according to national guidelines for University and Technical College PhD scholars.

You can send specific questions about the PhD position or the research project to Geir Bogfjellmo, Associate Professor, Department of Mathematics, by email geir.bogfjellmo@nmbu.no (do not use this e-mail for application, it is only for questions) Phone +47 67231570

Information for PhD applicants and 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: 31.05.2022

In the application, the candidate must confirm that information and documentation (in the form of attachments) submitted via the job application can also be used by NMBU in a possible admission process.

Applicants invited for an interview are expected to present original diplomas and certificates.

The following documents must be attached to the application:

- Motivation letter (maximum 1 page)
- Complete CV
- Certified copies of academic diplomas and certificates. (i.e. Di-ploma, transcript. Diploma supplement for both bachelor and master). Diplomas, transcripts and diploma supplements that are not in Norwegian or English must be uploaded in the original language. An English translation of these documents must also be attached.
- Applicants from universities outside Norway are kindly requested to send a diploma supplement, or a similar document, which describes in detail the study program and grading system.
- Documentation of proficiency in written and oral English in accordance with NMBU PhD regulation section 5-2 (3).
- Names and contact details for two references
- Additional relevant documentation of professional knowledge (for example, list of scientific works). If it is difficult to judge the applicant's contribution for publications with multiple authors, a short description of the applicant's contribution must be included.

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 1,900 employees of which about 300 phd scholarships and 6,700 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)