Postdoctoral fellowship in Mathematical Analysis: Data-Driven Models in Neuroscience

About the position

We have a vacancy for a two-year post-doctoral position at the Department of Mathematical Sciences. Funded by the NTNU Rector through NTNU Enabling Technologies, the position is part of the project Data-driven models in Neuroscience led by Professor Mats Ehrnstrom at the Department of Mathematical Sciences. The project concerns the derivation and analysis of mathematical partial differential equations for data of an a priori unknown structure, as well as the meaning of these models in relation to specific data in neuroscience, most specifically brain waves. The project is in collaboration with Associate Professor Tora Bonnevie at the Department of Neuromedicine and Movement Science.

The selected candidate will be part of the research group on dispersive waves within the Differential Equations and Numerical Analysis group, see https://www.ntnu.edu/employees/ehrnstro, currently comprising 4 other post-doctorial fellows and 3 PhD students. You will report to Ehrnstrom in your daily work, and to the Head of the Department of Mathematical Sciences in employee matters.

Preferred startup date is before October 1st.

Duties of the position

- Research work, in collaboration with other members of the group and the two mentors.
- Teaching (if the employee speaks a Scandinavian language, the position may be extended to a third year).
- Dissemination of results.

Required selection criteria

A postdoctoral research fellowship is a qualification position in which the main objective is qualification for work in academic positions. You must have obtained a PhD degree in mathematics or statistics, or otherwise have shown similar qualification in the respective fields.

If, for any reason, you have taken a career break or have had an atypical career and wish to disclose this in your application, the selection committee will take this into account, recognizing that the quantity of your research may be reduced as a result.

The appointment is to be made in accordance with the regulations in force concerning State Employees and Civil Servants and national guidelines for appointment as PhD, post doctor and research assistant.

Preferred selection criteria

- A background in analysis, partial differential equations, numerical analysis or mathematical statistics.
- Familiarity with Fourier analysis and coding.
- Knowledge of, or background in, neuroscience, medicine, psychology or related life-science fields, or the motivation to acquire such knowledge.
- High-level written and oral English language skills (Norwegian language skills will help qualify for teaching and therefore counts meritorially).

Personal characteristics

- Independent
- Curiosity-driven
- Motivated and able to engage in interdisciplinary collaboration

In the evaluation of which candidate is best qualified, emphasis will be placed on education, training and the above personal characteristics, as well as the readiness to enter a new field.

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

The employment period is 2 years without teaching, or 3 years with teaching and other duties of approximately 33% of the total available time.

Postdoctoral candidates are placed in code 1352, and are normally remunerated at gross from NOK 542 400 per annum before tax, depending on qualifications and seniority. From the salary, 2% is deducted as a contribution to the Norwegian Public Service Pension Fund.

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 on a daily basis.

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 applications are only evaluated based on the information available on the application deadline. You should ensure that your application shows clearly how your skills and experience meet the criteria which are set out above.

Letters of recommendation (maximum 3) can be sent to Marte Andresen, email marte.andresen@ntnu.no.

Joint works will be considered. If it is difficult to identify your contribution to joint works, you must attach a brief description of your participation.

General information

A good work environment is characterized by diversity. We encourage qualified candidates to apply, regardless of their gender, functional capacity or cultural background.

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.

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

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.

Information Act (Offentleglova), your name, age, position and municipality may be made public even if you have requested not to have your name entered on the list of applicants.

If you have any questions about the position, please contact Prof. Mats Ehrnstrøm, email mats.ehrnstrom@ntnu.no.

Please submit your application electronically via jobbnorge.no with your CV, diplomas and certificates. Applications submitted elsewhere will not be considered. Diploma Supplement is required to attach for European Master Diplomas outside Norway. Chinese applicants are required to provide confirmation of Master Diploma from China Credentials Verification (CHSI).

If you are invited for interview you must include certified copies of transcripts and reference letters. Please refer to the application number 2020/10206 when applying.

Application deadline: 10.05.2020.

NTNU - knowledge for a better world

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

Department of Mathematical Sciences

We are Norway’s largest university environment in mathematical sciences. The Department has a particular responsibility for all basis education in mathematical sciences for engineering and natural science students at NTNU. We focus on long-term basic research and applied research at a high international level.

Our aim is to meet the society’s needs for mathematical and statistical expertise in business and public administration as well as in the research and education sector. The Department of Mathematical Sciences is one of seven departments in the Faculty of Information Technology and Electrical Engineering.