The Department of Mathematical Sciences, NTNU, has vacancy for a PhD fellowship in spatial and spatio-temporal statistics.

**Statistical models and methods for spatial and spatio-temporal processes with geoscience applications**

This is NTNU
At NTNU, creating knowledge for a better world is the vision that unites our 7 400 employees and 42 000 students.

We are looking for dedicated employees to join us.

You will find more information about working at NTNU and the application process [here](https://www.youtube.com/watch?v=clgKd1SwGLI).

**About the position**
The Department of Mathematical Sciences, NTNU, has vacancy for a PhD fellowship in spatial and spatio-temporal statistics. The position is part of a project funded by The Research Council of Norway and industry partners.

The workplace of the PhD student will be at the Department of Mathematical Sciences, NTNU, Trondheim.

**Duties of the position**
The use of spatial and spatio-temporal statistical models and methods is growing with the availability of computer resources and sensor technologies. Statistical approaches, in particular the Bayesian framework, enable coherent integration of prior knowledge and sensor observations, which is crucial for getting reliable predictions with associated uncertainties in decision support systems, covering applications such as the petroleum industry, groundwater resources, geohazards and CO2 storage monitoring programs.

The PhD candidate will be conducting statistical research on spatial and spatio-temporal models, and on methods for updating the representation of such models as new observations become available. Statistical inference and prediction in such models require advanced computational methods and approximations to be computationally feasible, and an important part of the work is to develop new approaches and algorithms, and to assess their quality.

The PhD research work will be led by supervisors with strong scientific profiles in statistics and geo-sciences. As part of a larger research project, called GAMES - Geophysics and Applied Mathematics for Exploration and Safe production ([https://wiki.math.ntnu.no/games/home](https://wiki.math.ntnu.no/games/home)), the PhD student will be part of a cross-disciplinary team all working towards a common goal.

**Required selection criteria**
The PhD-position's main objective is to qualify for work in research positions. The qualification requirement is that you have completed a master’s degree or second degree (equivalent to 120 credits) with a strong academic background in Statistics or equivalent education with a grade of B or better in terms of NTNU's grading scale. If you do not have letter grades from previous studies, you must have an equally good academic foundation. If you are unable to meet these criteria you may be considered only if you can document that you are particularly suitable for education leading to a PhD degree.

We are looking for a highly motivated candidate with a MSc in statistics and with a strong background in programming and in computational or spatial statistics. Knowledge and experience in mathematical and physical modelling are an advantage.

The applicant must satisfy the requirement for entering the PhD program at NTNU; please see [http://www.ntnu.edu/ie/research/phd](http://www.ntnu.edu/ie/research/phd). The admission to PhD education at NTNU requires an average grade of A or B within a scale of A-E for passing grades (A best) for the last two years of the MSc degree, and C or higher for the BSc degree.

MSc students who expect to complete their master degree studies by 2021 are encouraged to apply. Employment will then start when the MSc degree is finished.

The appointments are 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.
Personal characteristics
In the evaluation of which candidate is best qualified, emphasis will be placed on education and experience, as well as personal suitability for this position which include:

- Willingness to learn new fields in a multidisciplinary research environment.
- Strong implementation and programming knowledge.
- Excellent communication skills.

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
- Contacts with industry partners

Salary and conditions
PhD candidates are remunerated in code 1017, and are normally remunerated at gross from NOK 482,200 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 period of employment is 3 years. The department might have the option to offer up to 1 year in addition for teaching duties.

Appointment to a PhD position requires that you are admitted to the PhD programme in Mathematical Sciences (please see http://www.ntnu.edu/ie/research/phd) 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.

Appointment takes place on the terms that apply to State employees at any time, and 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
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.

The application must include:
- CV which includes information about education background and work experience.
- Certified copies of relevant transcripts and diplomas. Candidates from universities outside Norway are kindly requested to send a Diploma Supplement or similar documentation, which describes in detail the program of study, the grading system, and the rights to further studies associated with the degree obtained.
- Contact information for two references.
- Documentation of fluency in the English language.

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.

In the evaluation of which candidate is best qualified, emphasis will be placed on education, experience and personal suitability.

Applicants who have been short-listed will be invited for interviews.

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
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.

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.
In accordance with The Public 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 Håkon Tjelmeland (haakon.tjelmeland@ntnu.no) or Jo Eidsvik (jo.eidsvik@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 2021/24882 when applying.

Application deadline: 23.05.2021.

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.

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