



# PhD Research Fellowships in statistics and machine learning, 1-2 positions

## Job description

1-2 PhD research fellowships in statistics and machine learning are available at the Department of Mathematics of the University of Oslo (UiO), Norway. The fellowship is for a period of 3 years, with starting date to be agreed upon.

This is an opportunity to join one of Europe's most active statistics and data science communities. The Section for Statistics and Data Science at the Department of Mathematics currently includes 9 full time academic positions in statistics, 6 adjunct positions and several PhD students and post doc's, making up a group of about 30. Statistics at UiO is internationally recognized, with interests spanning a broad range of areas (including high-dimensional and big data, nonparametric inference, algorithmic methods, Bayesian inference, statistical computing, model selection, time-to-event models, space-time models and copula models) and applications (e.g. genomics, sensor data, anomaly and fault detection, text processing). The section has a major role in the center for research-based innovation Big Insight, a consortium of 15 academic, industrial and public partners, with a funding of about 4 million Euro annually in the period 2015-2023. In total, the statistics research community in Oslo includes more than 100 researchers.

The 1-2 PhD positions are part of the Big Insight research activities. Big Insight develops original statistical and machine learning methodologies and analytical and computational tools to extract knowledge from complex and big data, addressed towards innovation. Rather than being merely data driven, we investigate approaches that exploit statistical models describing dynamics, mechanisms and structures of the underlying processes. In this way we answer detailed and sophisticated questions about complex systems. The 1-2 positions will be associated with the BigInsight Innovation Objectives Sensor Systems or Personalised Fraud Detection. In both cases, projects will include the analysis of large and complex data, streaming data, anomaly and change-point detection, complex dependency, stochastic models and computationally intensive inference. The PhD research projects will be performed in close contact with industrial and public partners in these IOs. Applicants should visit the pages of the two Innovation Objectives at [Big Insight](#).

The PhD studies at the University of Oslo are characterized by a very strong research component: the PhD thesis usually includes several papers which are published in leading scientific journals, while the candidates are required to take a small number of advanced courses as part of the training component of their degree.

Big Insight and the University of Oslo offer a lively and socially exciting environment, with many common activities, a broad visitor program, with international guests from the best universities. Generous funding for travelling to conferences and summer schools is available. The PhD candidate will be employed by the University of Oslo, thus enjoying all legal benefits in such a position, including health insurance, pension contributions and family welfare benefits.

## Qualification requirements

The University of Oslo has a strategic ambition of being a leading research university. Candidates for these fellowships will be selected accordingly, and expected to be among the best students of their class with respect to academic credentials.

- Applicants must have a Master of Science degree in statistics, data science, statistical or machine learning, mathematics or a related quantitative subject, with proven competence in statistics
- Foreign completed degree (M.Sc.-level) corresponding to a minimum of four years in the Norwegian educational system

Candidates without a Master's degree have time until 31.08.2019 to complete the final exam.

The ideal candidates have some experience in methodological statistics, and an outstanding potential and genuine interest to develop statistical methodology that solves key applied problems within the Big Insight project themes. Excellent programming capacity is required.

We seek highly motivated and skilled persons, able to work effectively as part of a team, who are eager to both gain and share insight while being focused on publishing papers in leading international journals.

### Grade requirements:

The norm is as follows:

- the average grade point for courses included in the Bachelor's degree must be C or better in the Norwegian educational system
  - the average grade point for courses included in the Master's degree must be B or better in the Norwegian educational system
  - the Master's thesis must have the grade B or better in the Norwegian educational system
  - the working language is English and excellent knowledge of spoken and written English is required
- <http://www.mn.uio.no/english/research/phd/application/application.html>

The purpose of the fellowships is research training leading to the successful completion of a PhD degree. The fellowships require admission to the PhD programme at the Faculty of Mathematics and Natural Sciences. The applications to the PhD programme must be submitted to the department no later than two months after taking up the positions. For more information see:

<http://www.uio.no/english/research/phd/>

## We offer

- salary NOK 449 400 - 505 800 per annum depending on qualifications in a position as PhD Research fellow (position code 1017)
- attractive [welfare benefits](#) and a generous pension agreement, in addition to Oslo's family-friendly environment with its rich opportunities for culture and outdoor activities

## How to apply

The application must include

- Cover letter, explaining why you are interested in this particular position, and indicating interest in either Sensor Systems or Fraud Detection or both (max 1 page)
- CV (summarizing education, positions and academic work - scientific publications)
- Copies of educational certificates, transcript of records from both the bachelor and the master degree
- Documentation of English proficiency, if required ([see link](#)).
- List of own publications and academic work that the applicant wishes to be considered by the evaluation committee, including a copy of the master thesis, or a link to it, if available
- Names and contact details of 2-3 references (name, relation to candidate, e-mail and telephone number)

The application with attachments must be delivered in our electronic recruiting system, please follow the link "apply for this job". Foreign applicants are advised to attach an explanation of their University's grading system. Please note that **all** documents should be in English (or a Scandinavian language).

Applicants may be called in for an interview.

## Formal regulations

Please see the [guidelines and regulations](#) for appointments to Research Fellowships at the University of Oslo.

No one can be appointed for more than one PhD Research Fellowship period at the University of Oslo.

According to the Norwegian Freedom and Information Act (Offentleglova) information about the applicant may be included in the public applicant list, also in cases where the applicant has requested non-disclosure.

The University of Oslo has an [agreement](#) for all employees, aiming to secure rights to research results etc.

## Contact information

For further information regarding the positions, please contact: Professor Ingrid K. Glad [glad@math.uio.no](mailto:glad@math.uio.no)

For questions regarding Jobbnorge, please contact: HR Officer Nina Holtan [nina.holtan@mn.uio.no](mailto:nina.holtan@mn.uio.no)

## About the University of Oslo

**The University of Oslo** is Norway's oldest and highest rated institution of research and education with 28 000 students and 7000 employees. Its broad range of academic disciplines and internationally esteemed research communities make UiO an important contributor to society.

**Department of Mathematics** is part of the Faculty of Mathematics and Natural Sciences. The Department is engaged in research covering a wide spectrum of subjects within mathematics, mechanics and statistics.

Jobbnorge-ID: 168345, Søknadsfrist: Avsluttet