Open PhD position at NORCE

NORCE is a new and forward-looking research institute, with expertise in a wide range of fields and strong communities of knowledge. We deliver research and innovation in energy, health

care, climate, the environment, society and technology. Our solutions address key challenges for society and contribute to value creation on the local, national and global levels.

PhD

About the position

Open PhD position at NORCE Energy within Assimilation of Big Data into Big Models. The position is available from August 2019.

NORCE Energy conducts research in the field of oil/gas and renewable forms of energy and CO2 sequestration, with a focus on cost-efficient, safe energy production that guarantees the lowest CO2 footprint possible during the green shift. The group on Data Assimilation and Optimization within NORCE Energy consists of 16 researchers with PhD in Mathematics, Statistics, Physics, Reservoir Engineering and Geophysics, all based in Bergen. One of the group's focus areas is improving model forecasts by assimilating measured data into numerical models in a statistically consistent manner.

The PhD student will collaborate with members of the group and with personnel from the University of Bergen. There are opportunities for a 3-4 months research stay at Heriot-Watt University, Edinburgh, Scotland, if desired. There are currently 4 PhD students attached to the group. The position is based at the Bergen office of NORCE Energy, with employment at NORCE for three years. The PhD position is attached to the project "Assimilating 4D Seismic Data: Big Data into Big Models", financed by Aker BP, Equinor, The Research Council of Norway (Petromaks2), and Total. The PhD student will enter an approved doctoral program at Department of Mathematics, University of Bergen, leading to the degree of PhD within a time frame of three years. It is a prerequisite that the formal admission requirements for the PhD program are met before appointment can be made.

Tasks and responsibilities

The PhD candidate will be engaged in method development and research within ensemble-based methodology for assimilation of large data sets into large numerical models, particularly multilevel data assimilation. While such techniques are general in nature and highly relevant within a host of scientific areas (weather and climate forecasting, wind-park design, traffic system optimization, medical imaging, insurance modelling, …), the main test bed for the developed methodology will be multi-phase porous-media-flow models.

Necessary qualifications

- Master degree in mathematics, scientific computing or statistics. Excellent candidates with a master degree in related areas can also apply. We encourage students who will complete their master degree in the spring semester of 2019 to apply.
- Strong problem-solving and computer-modelling/programming skills
- Excellent communication skills
- Excellent oral and written English
- Knowledge of Python is an advantage

We can offer

A top international research environment, group pension insurance, personnel insurance scheme, and salary in accordance with the Civil Service pay grade table scale for PhD students.

How to apply

Please submit your application electronically within 24.05.2019 to jobbnorge.no by using the button "Apply for this job". The application should be marked PhD-4DSEIS-Multilevel, and contain:

- Curriculum Vitae
- Certified copies of diplomas and grade transcripts
- Cover letter detailing experience and relevant work
- Name, title and email address of at least two people willing to provide references

Selected candidates will be invited to give a short presentation of their master thesis and also an interview.

For more information, please contact chief scientist Trond Mannseth (trma@norceresearch.no) or research director Randi Valestrand (rava@norceresearch.no).

Jobbnorge-ID: 169668, Søknadsfrist: Søknadsfristen er gått ut