



Postdoctoral Research Fellowship in Theoretical Chemistry

Job description

Position as postdoctoral research fellow is available at the Department of Chemistry/Hylleraas Centre for Quantum Molecular Sciences.

The fellowship period is 2 years. Starting date as soon as possible, but preferably no later than 15 January, 2019. Within the framework of the position, duties may be assigned.

More about the position

The fellowship is part of the ERC Starting Grant project BIVAQUM - Bivariational Approximations in Quantum Mechanics and Applications to Quantum Chemistry, lead by senior researcher Simen Kvaal at the Hylleraas Centre, Department of Chemistry. The BIVAQUM project is an ambitious interdisciplinary project that combines applied mathematics, theoretical physics and chemistry. The project revolves around a central variational principle, the bivariational principle, and aims at a rigorous mathematical understanding of this and development of novel computational techniques, in particular techniques for treating static correlation. Important keywords are: the bivariational principle, many-body theory, coupled-cluster theory, multireference coupled-cluster theory.

For more a more detailed description of the project, see <http://www.bivaqum.no/>.

Qualification requirements

The Faculty of Mathematics and Natural Sciences has a strategic ambition of being a leading research faculty. Candidates for these fellowships will be selected in accordance with this, and expected to be in the upper segment of their class with respect to academic credentials.

The candidate must have a PhD or other corresponding education equivalent to a Norwegian doctoral degree in theoretical/quantum chemistry, physics, or applied mathematics. Applicants who are in the final stages of their PhD may be considered.

Desired qualifications:

- Good command of quantum many-body theory and electronic-structure theory (e.g., Hartree--Fock theory, multiconfiguration self-consistent field theory, and coupled-cluster theory). Multireference coupled-cluster theory is particularly regarded.
- Experience with scientific programming in languages such as C++ and Python
- Experience with computer algebra software such as SymPy
- Exceptional analytical skills
- A good command of written and spoken English is required.

Personal skills

- Being able to draw connections and see the broad picture
- Independent and creative thinking
- Being able to work in a group
- Positive and enthusiastic
- Willing to contribute to a good working environment

Personal suitability of the applicant will be emphasized.

We offer

- salary NOK 515 200 - 576 100 per annum depending on qualifications in position as Postdoctoral Research Fellow (position code 1352)
- a professionally stimulating working environment
- 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

- Application letter
- Certification of PhD degree and PhD thesis, and other relevant documentation

- CV (summarizing education, positions, pedagogical experience, administrative experience and other qualifying activity)
- Copies of educational certificates, transcript of records and letters of recommendation
- A complete list of publications and up to 5 academic works that the applicant wishes to be considered by the evaluation committee
- 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. 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).

Formal regulations

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

No one can be appointed as Postdoctoral Fellow for more than one specified period at the same institution.

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.

The University of Oslo aims to achieve a balanced gender composition in the workforce and to recruit people with ethnic minority backgrounds.

Contact information

For more information on the position, please contact Senior Researcher Simen Kvaal, e-mail: simen.kvaal@kjemi.uio.no

For technical questions regarding the recruitment system please contact HR-adviser Ørjan Pretorius phone +47 22 85 63 49, e-mail orjan.pretorius@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.

Hylleraas Centre for Quantum Molecular Sciences operates under the aegis of the Department of Chemistry at the Faculty of Mathematics and Natural Sciences. The Department of Chemistry is Norway's largest institution within research and education in chemistry.

Our research excels internationally and we educate students to a wide variety of jobs in industry, academia, research institutions, schools and public administration. Our research ranges from the core topics of chemistry to applied science within in environmental, health, energy and materials. The Department has extensive contacts with industry, research and educational institutions at home and abroad. As partner in the Centre for Materials Science and Nanotechnology our researchers contributes to a significant interdisciplinary efforts in cooperation with the Department of Physics. The Department of Chemistry has its own school laboratory as a great resource for teachers, public outreach and the didactics of chemistry.

Jobbnorge-ID: 158599, Søknadsfrist: Avsluttet