PhD Research Fellow in Cosmology

Job description

Position as PhD Research Fellow in cosmology is available at Institute of Theoretical Astrophysics.

No one can be appointed for more than one PhD Research Fellowship period at the University of Oslo. Starting date no later than 01.10.2020.

The fellowship period is for up to 4 years, with 3 years devoted to research education. The position entail a compulsory work load of 25% that may consist of teaching, supervision duties, and research assistance.

More about the position

The current position is supported by two EU-funded projects called BeyondPlanck (Horizon 2020) and bits2cosmology (ERC Consolidator Grant). These projects aim to perform end-to-end analysis of current and future CMB experiments, including Planck LFI, SPIDER, WMAP and LiteBIRD, and develop the world’s first end-to-end time-domain Gibbs sampler, as implemented in the Commander CMB sampler. The candidate will be trained in both low-level CMB time-ordered data processing and high-level component separation and CMB analysis and in the interactions between the two, and be actively involved in the full process from raw uncalibrated data to final CMB maps and power spectra. Overall, this training aims to provide a solid foundation for a future career in cosmological data analysis.

For more information regarding BeyondPlanck and Commander, please see

https://beyondplanck.science/

https://github.com/hke/Commander

The successful candidate must demonstrate strong computational skills, and applicants are therefore requested to submit a self-written computer source code as part of their application material in order to receive full consideration. Providing a link to a GitHub repository is acceptable and, indeed, preferable.

Collaboration in large international collaborations is anticipated, including BeyondPlanck and LiteBIRD, and a generous personal expense grant of 60kNOK/year will be provided.

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.

- Master’s degree or equivalent in astronomy, physics, informatics, statistics or a related topic
- Foreign completed degree (M.Sc.-level) corresponding to a minimum of four years in the Norwegian educational system
- Documented English proficiency (minimum scores: TOEFL: 90, IELTS: 6.5, PTE Academic: 62, or Certificate in Advanced English (CAE) and Certificate of Proficiency in English (CPE)). The following applicants are exempt: EU/EEA countries, applicants with one year of completed university studies in Australia, Canada, Ireland, New Zealand, UK, USA, applicants with International Baccalaureate (IB) diplomas, applicants who have completed their bachelor's and/or master's degree with English as the language of instruction in one of the Nordic countries or the Netherlands.

Candidates without a Master’s degree have until 30 June, 2020 to complete the final exam.

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
- Fluent oral and written communication skills in English
- English requirements for applicants from outside of EU/EEA countries

http://www.mn.uio.no/english/research/phd/application/application.html

Personal skills

The purpose of the fellowship is research training leading to the successful completion of a PhD degree.

The fellowship requires admission to the PhD programme at the Faculty of Mathematics and Natural Sciences. The application to the PhD programme must be submitted to the department no later than two months after taking up the position. For more information see:
We offer

- Salary NOK 479 600 - 523 200 per annum depending on qualifications and seniority as PhD Research Fellow (position code 1017)
- Attractive welfare benefits and a generous pension agreement
- Vibrant international academic environment
- Career development programmes
- Oslo's family-friendly surroundings with their rich opportunities for culture and outdoor activities

How to apply

The application must include:

- Cover letter - statement of motivation and research interests
- CV (summarizing education, positions and academic work - scientific publications)
- Copies of the original Bachelor and Master’s degree diploma, transcripts of records and letters of recommendation
- Documentation of English proficiency
- List of publications and academic work 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)
- Transcript of a self-written computer program. Link to a GitHub repository or similar is welcome.

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](http://www.uio.no/english/research/phd/) for appointments to Research Fellowships at the University of Oslo.

According to the Norwegian Freedom of 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](http://www.mn.uio.no/english/research/phd/) 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. The University of Oslo seeks in particular to increase its number of female scientists, and women are particularly encouraged to apply.

Contact information

For further information please contact Prof. Hans Kristian Eriksen e-mail: h.k.k.eriksen@astro.uio.no

For technical questions regarding the application system, please contact HR Adviser Elin Thoresen, +47 22 85 71 96, e-mail: elin.thoresen@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.

The Institute of Theoretical Astrophysics is part of the Faculty of Mathematics and Natural Sciences. It presently has 15 permanent professors/associate professors. The Institute employs about 15 postdoctoral and senior research fellows and has about 25 Ph.D. students. The research activity of the Institute of Theoretical Astrophysics is concentrated around solar physics, cosmology and extragalactic astrophysics.

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