



# UNIVERSITETET I OSLO

## KUNNGJØRING AV STILLING

### **POSITION AS ASSOCIATE PROFESSOR OF ASTROPHYSICS (WITH PRIORITY TO COSMOLOGY)**

is available at the Institute of Theoretical Astrophysics, University of Oslo

Further information from: Head of Department, Prof. Per B. Lilje, tel.: (+47)22856517, e-mail: per.lilje@astro.uio.no

Pay grade: 57 – 67 (416 100 – 500 900 NOK), depending on qualifications and seniority

Closing date for application: 1 May 2008

#### **REF. NO. XXXX**

Four sets of the application (marked with REF.NO. XXXXX), including curriculum vitae, a complete survey of education and previous posts with certified copies of examination and employment certificates, a list of publications (overview of all publications), a complete survey and a brief account of those works that shall be the particular object of qualitative assessment with these works enclosed (the total should not exceed 10), two references and a folder providing an overview of other qualifications with documentary evidence should be forwarded to:

Faculty of Mathematics and Natural Sciences, University of Oslo, Attn.: Senior Executive Officer Gro Corell, P.O.Box 1032, Blindern, NO-0315 OSLO before the closing date.

Application papers will not be returned.

The position is at the Institute of Theoretical Astrophysics, under the Faculty of Mathematics and Natural Sciences, University of Oslo.

The faculty of the Institute of Theoretical Astrophysics presently consists of 13 associate and full professors, of these 10 are permanent professors/associate professors and 3 are adjunct professors shared with other institutions. The Institute employs about 10 postdoctoral research fellows. The research activity of the Institute of Theoretical Astrophysics is concentrated around Solar physics, Cosmology, and Celestial mechanics. Solar physics and cosmology have been designated as the Institute's main priority areas, and the solar physics group has been appointed as one of the Faculty of Mathematics and Natural Sciences' Top Research Programmes while the cosmology group has been appointed as one of the Faculty's Strategic Research Initiatives.

Observational material is collected from space-borne and ground-based observatories. Parallel with and in interaction with the observational activity, there is a strong activity in theoretical astrophysics. The Institute is actively engaged in a large number of international collaborative programs. It is heavily engaged in organizational collaborations through the Norwegian membership in ESA, Norwegian participation in the Nordic Optical Telescope (NOT) and the institute's participation in the Swedish 1m Solar Telescope on La Palma and the QUIET (Q/U Imaging Experiment) groundbased CMB polarization experiment in Chile. Space projects with major participation from the Institute include the Solar and Heliospheric Observatory (SOHO) and Hinode within solar physics and Planck within cosmology. In theoretical astrophysics the Institute has built up strong groups within numerical modelling and within the use of modern computational statistics methods in data analysis.

The experimental and theoretical activities at the Institute are supported by a modern computer infrastructure, including excellent access to supercomputing resources.

The teaching at the institute is given as courses and as supervision within the framework given by the degrees bachelor, master and Ph.D. Presently the Institute has about 16 master students and 12 Ph.D. students.

The advertised position has priority to cosmology, but excellent candidates from other fields of astronomy and astrophysics are also invited to apply. The cosmology group of the Institute of Theoretical Astrophysics was recently appointed by the Faculty of Mathematics and Natural Sciences as one of the Faculty's Strategic Research Initiatives with the aim to become one of the Faculty's Top Research Programmes in the coming five-year period. The cosmology group presently consists of three permanent faculty, five post docs and five Ph.D. students, and it has a very lively and productive environment. The group participates heavily in the Planck LFI consortium and has contributed to the development of new data analysis methods for CMB data and have applied them successfully to the WMAP data. The group has also recently joined the consortium of the ground based CMB polarization experiment QUIET. Our CMB research has special emphasis on separation of the components, studies of the power spectrum and deviations from gaussianity. The cosmology group has a strong theoretical activity within constraints on "dark energy" models, including theoretical studies of alternative models for the accelerating expansion of the Universe, and on cosmological constraints on other physical parameters, e.g., the neutrino mass. A future activity will be studies of inflationary models, with emphasis on observable signatures. The group also has an activity within optical observational extragalactic astronomy, concentrating on Active Galactic Nuclei, gravitational lensing and gamma ray bursts. This activity is utilising the Norwegian membership in the Nordic Optical Telescope, both directly and through access to other observatories. The cosmology group has external funding through a number of grants from the European Union, the European Space Agency and the Research Council of Norway, including two "Outstanding Young Investigator" awards. The group is the owner of a major part of a large new computing cluster, TITAN, and also good access to national high performance computing facilities, giving excellent conditions for computationally demanding research.

The Institute wishes to strengthen the activity in cosmology by opening a new permanent position on the associate professor level with priority to this field. In the evaluation of applicants to this position, emphasis will be given to whether the applicants can increase the scientific return within cosmology. Special weight will be given on expected future potential and on how the applicants will interact with the already ongoing research activities.

The person employed must be able to teach at all levels within the study program and must be able to supervise master- and Ph.D. students within her/his specialty. The teaching languages of the University of Oslo are Norwegian (Danish and Swedish counts as Norwegian) and English. The person employed must be willing to perform administrative duties in accordance with rules and regulations by the Institute and the Faculty of Mathematics and Natural Sciences.

In accordance with current regulations, main emphasis will be given to the supplied scientific work in the evaluation of applicants. Research leadership and participation in research projects will also be considered, provided sufficient documentation is given. In the ranking of the qualified applicants, weight will be given to documented scientific outreach, pedagogical qualifications, other scientific qualifications and other activities. Furthermore, weight will be given to personal qualities (leadership, ability to create a positive environment etc) and expected future potential. The minimum formal requirements include a Ph.D. in astrophysics or a related field.

As a general rule an interview and a trial lecture will be used in the appointment process. References will also be contacted.

The University of Oslo wants to have more women in permanent academic posts. Women are therefore encouraged to apply. The University of Oslo wants more people with an immigrant background in permanent academic posts. Such persons are encouraged to apply.

Applicants must submit 4 (paper) copies of not more than 10 publications which they wish the committee to assess, and mention the academic/professional works or parts of works that he or she wishes to have ascribed particular weight when the assessment is being conducted.

Please refer to “Rules for Appointments to Professorships and Associate professorships”, <http://www.uio.no/admhb/reglhb/personal/tilsettingvitenskapelig/rulesappointprofessor.xml> and “Rules for the assessment and weighting of pedagogical competence for appointments to permanent academic posts which include teaching duties”: <http://www.uio.no/admhb/reglhb/personal/tilsettingvitenskapelig/rulesassessmentweight.xml>.

**MELDING TIL OPA:**

**KUNNGJØRINGEN ER SENDT FAGFORENINGENE. DATO:**

**KUNNGJØRINGEN SKAL LYES UT (KRYSS AV):**

**KUN INTERNT (PÅ UIOS HJEMMESIDER)**

**INTERNT, NORSK LYSNINGSBLAD OG AETAT**

**INTERNT, DAGSPRESSEN, NORSK LYSNINGSBLAD OG AETAT**

**ANNET TIDSSKRIFT (SPESIFISER): .....**

**FAKTURA BELASTES: .....**

**MERKNAD TIL OPA:**

**MELDING TIL BYRÅET:**

**KRISTIN KJØLSTAD  
ETTER FULLMAKT**