



CALL FOR AWARDING RESEARCH FELLOWSHIPS WITHIN PROJECT GRANTS AND R&D INSTITUTIONS

One post-doctoral research fellowship position in the field of Cosmology and the evolution of the Universe

A Call for for 1 (one) post-doctoral research fellowship (Bolsa de pós-doutoramento) in the field “Unveiling the Dynamics of the Universe” is open at the **Fundação da Faculdade de Ciências da Universidade de Lisboa, F. P. (FFCUL)**, for the Instituto de Astrofísica e Ciências do Espaço (IA), in the context of the project FIS/04434 with financial support provided by the FCT/MCTES through national funds and co-funded by FEDER under the PT2020 agreement, when applicable. The Instituto de Astrofísica e Ciências do Espaço (IA) has been ranked as Excellent in the latest FCT evaluation exercise and referred to as “the most important research institution in the field of Astronomy and Space Sciences in Portugal” by the international evaluation panel.

1. **Scientific Area:** Astronomy and Astrophysics
2. **Requirements for admission:** The applicant must have completed a doctoral degree by the date of submission.
3. **Work plan:** The successful candidate will pursue research on on-going work relevant for the participation of the Cosmology and Evolution of the Universe Group of IA in the ESA-Euclid mission. The research will cover the study of galaxy clusters as probes of cosmology and large-scale structure formation models, using analytical and hydrodynamic N-body simulation techniques to characterize observable properties in alternative cosmologies, and the development of methods to allow quantifying degeneracies between cosmological and astrophysical effects. The candidate is also expected to use simulation results in novel statistical methods, such as Approximate Bayesian Computation and other Monte Carlo methods, to test cosmological and structure formation models using galaxy cluster and weak lensing cosmic shear data
4. **Legislation framework:** A fellowship contract will be celebrated according to the regulations defined by FCT “Regulations for Advanced Training and Qualification of Human Resources”, in accordance with Law 40/2004, of 18 August, as amended and republished by Decree-Law No. 202/2012 of 27 August, and as amended by Decree-Law No. 233/2012 of 29 October and by Law No. 12/2013, of January 29, and Decree-Law No. 89/2013 of 9 July. And also by the FCT, I.P. Fellowships Regulation, in force (<http://www.fct.pt/apoios/bolsas/docs/RegulamentoBolsasFCT2015.pdf>) and FFCUL’s Fellowship Regulation, as approved on 22nd December 2014.
5. **Place of work:** The work will be developed at the Instituto de Astrofísica e Ciências do Espaço, in Lisbon, under the scientific guidance of one of the researchers of the respective IA Thematic Line.
6. **Fellowship duration:** The position is initially opened for 12 months and will begin on October/November 2016. The contract may be renewed up to 18 additional months, in accordance with the provisions of Regulation of Research Fellowships from the Foundation for Science and Technology, I.P. The fellowship renewal is pending on a favourable interim evaluation of the project FIS/04434.
7. **Monthly allowance:** The fellowship amounts to € 1495,00, according to table values of the fellowships awarded directly by the FCT, IP. (<http://www.fct.pt/apoios/bolsas/valores>).
The fellowship holder will have a personal accident insurance and, if not covered by any social protection scheme can ensure the right to social security through adherence to the voluntary social insurance scheme, pursuant to Código dos Regimes Contributivos do Sistema Previdencial de Segurança Social.
The fellowship will be paid monthly by bank transfer.
8. **Selection method:** Candidates will be assessed, on a first stage, by the quality of their CV, including the relevance of their publications (45%), previous research experience (40%) and Cover Letter (15%). The selection committee may decide on the need to have an interview for a second stage of evaluation (by teleconference or videoconference if needed). In that



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case, the final grade will be obtained by averaging the result of the first stage evaluation with the interview with weights 50/50, respectively. The contract will be offered according to the final ordering proposed by the selection committee.

9. **Selection Committee:** Francisco Lobo (Chair), José Pedro Mimoso, Nelson Nunes, Pedro Avelino, Ismael Tereno, José Afonso, António da Silva.

10. **Publication/notification of results:** The final results of the evaluation will become public, through ordered list *final grade obtained* which will be posted at the entrance hall of the **FFCUL**, located at the Faculdade de Ciências da Universidade de Lisboa, C1 bldg – 3rd floor, Campo Grande, 1749-016 Lisboa, and the selected candidate will be notified by e-mail.

11. **Deadlines:** This call for applications is open from September 1st 2016 to September 15th, 2016

12. **Application:** Applications may be submitted through the webpage <http://www.iastro.pt/ia/jobDetails.html?ID=31> should include the following documents: Cover letter with a brief description of the candidate's experience and motivation; Curriculum Vitae (up to 4 pages); A complete list of scientific publications; A complete list of academic courses (University level) previously followed, and respective grades; Name and contact details (position, email, address) of two referees, available to provide information about the candidate (to be contacted if considered necessary to clarify the information provided in the remaining documents).

Applications from persons with disabilities will receive equal consideration to the extent their disabilities do not prevent them from performing the defined work tasks.