



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

### Up to two Research fellowship (PhD-level) positions in the field of galaxy formation and evolution

A Call for up-to 2 research fellowships (Bolsa de Investigação – Mestre) in the field of galaxy formation and evolution 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/MEC through national funds and co-funded by FEDER under the PT2020 agreement, when applicable. This Call is open under the following conditions:

1. **Scientific Area:** Astronomy and Astrophysics
2. **Requirements for admission:** The applicant must have completed a master degree. Only applications from candidates having an adequate background in Astronomy, Physics, Mathematics, or other relevant domains, will be considered.
3. **Factors preferred:** Experience with astronomical data processing software and in programming languages (eg: IDL, Fortran).
4. **Work plan:** The successful candidates are expected to pursue research on topics relevant to the participation of IA's "The assembly history of galaxies resolved in space and time" team in several strategic projects for galaxy formation and evolution, using state-of-the-art instruments and surveys such as MOONS, CALIFA, HiZELS, Ultravista, ASKAP-EMU and ALMA. Covered topics of research include:
  - Detect and understand the formation Super-Massive Black Holes in the early Universe (within the first 800 Myr of the Universe) and their impact on the physical properties (e.g., gas kinematics, ionization structure, star-forming activity) of their protogalactic hosts.
  - Understand the secular evolution of galaxies and the buildup of their structural components, exploring the co-evolution of SMBHs with their galaxy hosts and the assembly history of the structural components of present-day Hubble-type galaxies.
  - Development of tools for the interpretation of galaxy radiative output, namely performing kinematical decomposition of galaxy spectra, an improved description of forbidden line emission and a semi-empirical treatment of the dust and PAH emission at infrared wavelengths.

The work programme is adequate to support a PhD program at the IA host Universities, University of Porto or University of Lisboa. The renewal of the fellowship will take into account the overall performance.

5. **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.
6. **Place of work:** The work will be developed at the Instituto de Astrofísica e Ciências do Espaço, in Lisbon and/or Porto, under the scientific guidance of one of the researchers of the respective IA Thematic Line.
7. **Fellowship duration:** The positions are initially opened for 6 months and will begin on November 2015. The fellowship contract may be renewed up to 36 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.



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8. **Monthly allowance:** The fellowship amounts to € 980,00, 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.

9. **Selection method:** Candidates will be assessed, on a first stage, by the quality of their CV, including degrees, marks and contents of curricular units completed (60%), relevance and success of previous research experience (30%) and Cover Letter (10%). A short-list of candidates will be defined based on the submitted documents and the criteria mentioned above. The short-listed applicants will be required to attend an interview for the second stage of the evaluation (by teleconference or videoconference if needed). The final grade will be obtained by averaging the result of the first stage evaluation with the interview (equal weights). The contracts will then be offered according to the ordering proposed by the selection committee.

10. **Selection Committee:** José Manuel Afonso (Chair), Polychronis Papaderos, David Sobral, João Lima

11. **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 **Fundação da Faculdade de Ciências da Universidade de Lisboa**, located at the Faculdade de Ciências da Universidade de Lisboa, C1 bldg – 3<sup>rd</sup> floor, Campo Grande, 1749-016 Lisboa, and the selected candidate will be notified by e-mail.

12. **Deadlines:** This call for applications is open from 6<sup>th</sup> to 19<sup>th</sup> November, 2015

13. **Application:** Applications may be submitted through the webpage <http://www.iastro.pt/ia/jobDetails.html?ID=19>, should include the following documents: Cover letter with a brief description of the candidate's experience and motivation; Curriculum Vitae (up to 4 pages) including, if available, a complete list of scientific publications (up to 1 additional page); 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.