

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

Post Doctoral Research Fellowship (BIPD) – 1 (one) position

1 Post Doctoral Research Fellowship(s) (BIPD) is(are) open at the **FCiências.ID – Associação para a Investigação e Desenvolvimento de Ciências**, for the project/R&D institution Instituto de Astrofísica e Ciências do Espaço (IA), UIDP/04434/2020, UIDB/04434/2020, financed by national funds by FCT / MCTES (PIDDAC), under the following conditions:

1. **Scientific Area:** Extragalactic Astronomy.

2. **Requirements for admission:** Portuguese nationals, foreign and stateless persons may submit applications to this selection procedure, provided they hold a doctorate degree in Astrophysics or akin areas (that they have obtained up to 3 years before the application deadline, have demonstrated expertise) in the analysis of integral field spectroscopy (IFS) and imaging data, and fully comply with the following requirements:

Experience, documented through publications, in:

- a) the structural characterization of galaxies through surface photometry and profile fitting techniques
- b) spectral modeling of IFS data from the CALIFA survey with the codes Starlight and FADO
- c) data analysis with ESO-MIDAS (including the development of codes in the MIDAS scripting language) and in using the pipeline Porto3D
- d) the spectroscopic classification of galaxies with emission-line diagnostics
- e) techniques for spectrophotometric bulge-disk decomposition of late-type galaxies.

3. **Additional optional skills and qualifications:** Programming experience in Fortran and Python.

4. **Work plan:** The successful candidate is expected to pursue research on a spatially resolved exploration of the formation history of late-type galaxies (LTGs) using publicly available IFS data from the CALIFA survey, data from “The MUSE Atlas of Disks” survey and archival MUSE data. To this end, the holder of the fellowship will utilize an upgraded version of the spectral synthesis pipeline Porto3D, in conjunction with surface photometry and spectrophotometric bulge-disk decomposition techniques. The fellowship holder will investigate a) the radial stellar surface density of LTG disks in their central part and b) the dependence of the stellar age and metallicity inferred with FADO and other spectral synthesis codes on the spectral range considered in spectral fits.

5. **Legislation framework:** Research Fellowship Holder Statute, in accordance with Law 40/2004, of 18 August, in its current version and the FCT Regulation for Research Studentships and Fellowships, in its current version available at <https://www.fct.pt/apoios/bolsas/docs/RegulamentoBolsasFCT2019.pdf>.

6. **Place of work:** The work will be developed at the Institute of Astrophysics and Space Sciences, at the Observatório Astronómico de Lisboa, Tapada da Ajuda, Lisbon, Portugal (with frequent trips within the Institute, namely to the facilities in Porto, encouraged) under the scientific guidance of PD Dr. Polychronis Papaderos and Dr. Jarle Brinchmann.

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7. **Fellowship duration:** This position is initially opened for 4 months months and will begin on August 2020. The fellowship contract may be potentially renewed, in accordance with the provisions of Regulation of Research Fellowships from the Foundation for Science and Technology, I.P.

8. **Monthly allowance:** The fellowship amounts to € 1600, according to [table values](#) of the fellowships awarded directly by the FCT, IP. The fellowship holder will have a personal accident insurance and can ensure the right to social security through adherence to the voluntary social insurance scheme, if not covered by any other social protection scheme, pursuant to *Código dos Regimes Contributivos do Sistema Previdencial de Segurança Social*. The fellowship will be paid monthly by bank transfer

9. **Evaluation and selection process:**

The application must include the following information:

- Cover letter with a brief description of the candidate's experience and motivation;
- Curriculum Vitae (up to 6 pages, in 10pt size format and single line spacing at minimum), including a brief description of any previous research experience, as well as a scan of the PhD degree diploma (foreign diplomas must be certified by a Portuguese Academic Institution);
- 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).

The evaluation of the candidates will be done based on:

- (10%) cover letter;
- (20%) CV, including degrees, marks, and contents of curricular units completed;
- (60%) relevance and adequacy of previous research experience to the priorities of the work plan;
- (10%) interview, if deemed necessary by the jury.

The applicant must have completed a PhD degree during the past 3 years. Only applications from candidates having an adequate background in Astronomy, Physics, Mathematics, or other relevant domains, will be considered.

Following the evaluation process the contract will be offered according to the ordered list resulting from the selection committee. The position will be granted only if a suitable candidate is identified (with a minimum of 70% in the evaluation).

For inquires please contact PD Dr. Polychronis Papaderos

10. **Selection Committee:** Polychronis Papaderos (Chair), José Afonso, Jarle Brinchmann, Cirino Pappalardo (alternate).

11. **Publication/notification of results:** All the candidates will be notified by e-mail, sent by the call holder, with the selection meeting minutes enclosed.

12. **Deadlines:** This call for applications is open from 09 July 2020 to 22 July 2020 .

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13. **Application:** Applications should be submitted to the form <http://www.iastro.pt/ia/jobDetails.html?ID=142> by including the following documents:

- a. Curriculum vitae;
- b. Certificate of completion of previous degree;
- c. Cover letter;
- d. Name and contact details of two referees;
- e. Other documents considered relevant.

14. **Time limits for the appeal procedure:** In case of negative decision, the candidates have 10 business days, after the date of announcement of the results of the candidates evaluation, to pronounce their disagreement in accordance with the *Código do Procedimento Administrativo*. Appeals against the final decision may be submitted to the Administration Board of FCIências.ID (fciencias.id@fciencias-id.pt) within 15 business days after the notification date

Note 1: The documents that prove the entitlement of the academic qualifications and diplomas, or the proof of registration in the academic degree or diploma requested on the call, can be dismissed during the application period and replaced by a declaration on their honour from the applicant. Their delivery is mandatory during the fellowship contractualization.

NOTE 2: Please note that - higher education degrees and diplomas awarded by foreign higher education institutions need to be recognized by a Portuguese higher education institution, pursuant to the [Decree-Law nr. 66/2018](#) (August 16) and the [Ministerial Order nr. 33/2019](#) (January 25). The presentation of the recognition certificate is mandatory for contract signature. More information can be obtained at: <https://www.dges.gov.pt/en/pagina/degree-and-diploma-recognition>.