

Call for tender

Open Call for PhD Research Fellowships

FCiências.ID - Associação para a Investigação e. Desenvolvimento de Ciências, the legal representative of CENTRA - Centre for Astrophysics and Gravitation opens a call for the awarding of one research fellowship(s), hereinafter designated by PhD Research Fellowships, in the scientific area of Astronomy and Astrophysics, under the Research Fellowship Regulation (*Regulamento de Bolsas de Investigação da FCT - RBI*) and the Research Fellowship Holder Statute (*Estatuto do Bolseiro de Investigação - EBI*).

The fellowship(s) will be financed by *Fundação para a Ciência e Tecnologia (FCT)* under the Collaboration Protocol for Financing the Multiannual Research Fellowship Plan for Doctoral Students, signed between FCT and the R&D Unit CENTRA - Centre for Astrophysics and Gravitation, UIDP/00099/2020.

1. APPLICATION SUBMISSION

The call is open from May, 16th to 23h59m (Lisbon time), June 30th, 2022.

The applications, and all the supporting documents described in this Call for tender must be submitted via email to andre@sim.ul.pt.

Each applicant may submit only one application, under penalty of cancellation of all submitted applications.

Applicants providing false declarations or committing acts of plagiarism will be excluded from the application without prejudice of taking other corrective and punitive disciplinary measures.

2. TYPE AND DURATION OF FELLOWSHIPS

Aiming to support advanced training, PhD Research Fellowships will be granted to applicants that fulfill the requirements to join a study cycle that allows to obtain a PhD degree and that wish to develop research work that allows obtaining that degree.

The research activities leading to the attainment of the PhD degree will take place at CENTRA - Centre for Astrophysics and Gravitation, which will be the host institution of the fellowship holder, without prejudice the work can be carried out in collaboration with more than one institution.

The research activities leading to the attainment of the PhD degree must be integrated in the activities plan and strategy of CENTRA.

The work plan may be developed entirely or partially in a national institution (fellowship in Portugal or both in Portugal and abroad, respectively).

The duration of the fellowships is, as a rule, annual, renewable up to the maximum of four years (48 months) and cannot be granted for a period less than 3 consecutive months. In the case of a fellowship carried out both in Portugal and abroad, the work plan period in a foreign institution cannot exceed 24 months.

3. RECIPIENTS

PhD fellowships are aimed to applicants who wish to carry out research towards the attainment of the Doctor degree at CENTRA - Centre for Astrophysics and Gravitation, or in host institutions associated with it.

4. ADMISSIBILITY

4.1 Applicants' Admissibility Requirements

The following citizens may apply to this call:

- National citizens or citizens of other member states of the European Union;
- Third-country citizens;
- Stateless individuals;
- Citizens holding a political refugee status.

To apply for the PhD Research Fellowship, it is necessary:

- To hold a Degree or Master's degree in Astronomy and Astrophysics, Physics or related areas;
- To be a citizen permanently and usually living in Portugal at the start date of the work plan abroad in case the work plan associated with the fellowship proceeds, entirely or partially, in foreign institutions (in case of both in Portugal and abroad fellowships); this requirement is applicable to both national and foreign citizens.
- Not to have benefited from a PhD or a PhD in industry fellowship directly funded by FCT, regardless of its duration.
- Not to hold a PhD degree.

4.2 Application's Admissibility Requirements

It is mandatory, under penalty of non-admissibility to the Call, to enclose the following documents to the application:

- Applicant's *Curriculum vitae* (CV)
- Certificates of academic degrees held by the applicant, compulsorily specifying the final classification and, if possible, the classifications obtained in all subjects taken, or, in alternative, applicant's declaration of honor,

confirming that the bachelor's or master's degree was completed by the end of the application deadline;

- Record of recognition of academic degrees awarded by foreign higher education institutions and record of the conversion of the respective final classification to the Portuguese classification scale, or, alternatively, the applicant's declaration of honor that he obtained recognition of the foreign degree equivalent to that of graduate or master by the end of the application period;
- Motivation letter;
- Recommendation letters (two, optional);
- To present/prepare and submit the application and all related documents, including motivation and recommendation letters, in Portuguese or in English.

Regarding the above mentioned admissibility requirements, the following should be noted:

- In the case of academic degrees awarded by foreign higher education institutions, and in order to ensure the application of the principle of equal treatment to applicants holding foreign and national academic degrees, it is mandatory to recognize these degrees and convert the respective final classification for the Portuguese rating scale.
- The recognition of foreign academic degrees and diplomas, as well as the conversion of the final classification to the Portuguese classification scale can be requested at any public higher education institution, or at the Directorate-General for Higher Education (DGES, only in the case of automatic recognition). Regarding this matter, it is suggested to consult the DGES portal at the following address: <http://www.dges.gov.pt>.
- Only applicants who have completed the cycle of studies leading to a Bachelor's or Master's degree by the end of the application period will be admitted. If they do not yet have a certificate of course completion, a declaration of honor from the applicants that they have completed the necessary qualifications for the purposes of the competition will be accepted by the end of the application deadline. The granting of the fellowship is always dependent on the presentation of proof of ownership of the academic qualifications necessary for granting the fellowship.

5. WORK PLANS AND SCIENTIFIC ORIENTATION OF THE FELLOWSHIPS

The work will take place at the Faculty of Sciences of the University of Lisbon under the supervision of Prof. André Moitinho de Almeida.

The aim of the project is to investigate the processes that lead from a highly structured distribution of stars since their formation in clusters, to the smooth distribution observed in the field population of the Milky Way and of external galaxies.

The work program is based on the exploration of data from the ESA Gaia mission and the numerical modeling of the dynamics and morphology of stellar systems, including the following tasks:

- Statistical characterization of the sample
- Morphological and dynamic characterization
- Determination of luminous and dynamical masses
- Determination of mass loss rates of gravitationally bound stellar systems

6. EVALUATION CRITERIA AND BONUSES

6.1 Evaluation Criteria

The evaluation considers the applicant's merit.

Applications considered admissible will be scored on a scale of 1-100 on each of the following evaluation criteria:

- Criterion A - Merit of the candidate, with a weight of 70%;
 - Subcriterion A1 - Classification obtained in the last academic degree held, with a weight of 20%
 - Subcriterion A2 - Research and Professional Experience, with a weight of 40%
 - Subcriterion A3 - Letter of Motivation, weighing 10%
- Criterion B – Interview, if considered necessary by the jury, with a weight of 30%

The jury may interview the top 5 classified in criterion A, in order to obtain clarification and/or explanation of curricular elements presented and additional information.

For the purpose of the decision on granting fellowships, applicants will be ranked according to the weighted average of the classification obtained in each of the two criteria, translated by the following

$$\text{Final classification} = 0.7 \times ((0.2 \times A1) + (0.4 \times A2) + (0.1 \times A3)) + 0.3 \times (B)$$

For tie-breaking purposes, the ranking of applicants will be based on the scores assigned to each of the evaluation criteria in the following order: criterion Interview, criterion Merit of the candidate.

Important notice for applicants with degrees issued by foreign higher education institutions:

- Applicants with diplomas issued by foreign higher education institutions can apply and will be evaluated with the same criteria as applicants with diplomas issued by Portuguese institutions, provided that they present, in their application, proof of recognition of academic degrees and conversion of the final classification for the Portuguese classification scale in accordance with the applicable legislation.
- Applicants with foreign diplomas who do not present proof of conversion of the final classification to the Portuguese classification scale will be evaluated with the minimum classification (0 points) in criterion A1.

- In any case, fellowship contracts with applicants with diplomas issued by foreign institutions will only be concluded upon presentation of proof of recognition of academic degrees and conversion of the final classification, as indicated above.

7. EVALUATION

The applicants' evaluation panel is composed by the following elements:

- Prof. Dr. André Moitinho de Almeida, Faculdade de Ciências da Universidade de Lisboa (coordenador do painel)
- Prof. Dr. António Amorim, Faculdade de Ciências da Universidade de Lisboa
- Prof. Dr. Paulo Garcia, Faculdade de Engenharia da Universidade do Porto
- Dra. Koraljka Muzic, Faculdade de Ciências da Universidade de Lisboa (substitute)
- Prof. Dr. José Figueiredo, Faculdade de Ciências da Universidade de Lisboa (substitute)

The evaluation panel will assess the applications according to the evaluation criteria indicated in this Call, considering the elements of assessment.

All panel members, including the Head coordinator, are committed to respect a set of responsibilities essential to the evaluation process, such as the duties of impartiality, the declaration of any potential conflict of interest situations and confidentiality. At all times during the evaluation process, confidentiality is fully protected and ensured in order to guarantee the independence of all opinions produced.

For each application, a final evaluation form will be produced by the panel where the arguments that led to the classifications attributed to each of the evaluation criteria and sub-criteria are presented in a clear, coherent and consistent way.

Meeting minutes will be produced from the evaluation panel meetings, under the responsibility of all its members.

The minutes and their attachments must include the following information:

- Name and affiliation of all evaluation panel members;
- Identification of all excluded applications and reasoning respective reasons;
- Methodology adopted by the panel for cases considered to be particular;
- Final Evaluation Sheets for each applicant;
- Provisional ranking list and seriation of applicants, in descending order of the final ranking, of all applications evaluated by the panel;
- Conflict of interest statements by all panel members;
- Possible delegations of vote and competences due to excused absence.

8. RESULTS DISCLOSURE

The evaluation results are communicated via email to the email address used by the applicant to send the application/indicated in the application.

9. TERMS AND PROCEDURES FOR PRIOR HEARING, CLAIM AND APPEAL

Once the provisional ranked list of the evaluation results has been communicated, applicants who have an unfavorable provisional decision may use their right to dispute it during the preliminary hearing phase, which takes place within 10 working days, according to Articles no. 121 and the following of the Administrative Procedure Code (CPA).

The final decision will be disclosed after the analysis of the applicants' arguments presented during the preliminary hearing. Final decision can be claimed within 15 working days or, alternatively, appealed within 30 working days, after the communication of the final results, respectively. Applicants who choose to submit a complaint must address their statement to the member of the Board of Directors of the FCT with delegated competence. Applicants who choose to present an appeal must address it to the FCT Board of Directors.

10. FELLOWSHIP GRANTING REQUIREMENTS

Research fellowship contracts are signed directly with the FCT.

The following documents are of mandatory submission, upon conditional granting of the studentship for purposes of contracting thereof:

- a) Copy of the civil, fiscal and, when applicable, social security identification document(s)¹;
- b) Copy of the academic degree certificates;
- c) Presentation of the registration of recognition of foreign academic degrees and conversion of the respective final classifications to the Portuguese classification scale, if applicable;
- d) Work Plan
- e) Supervisor(s) statement declaring to coordinate the work plan, as established in Article no. 5-A of the Statute for Research Fellowships (template will be made available by FCT) ;
- f) Institutional document supporting the applicant, issued by the institution(s) where the work plan will be carried

¹ The availability of these documents can be replaced, at the applicant's option, by presentation in person at the funding entity, which will keep the elements contained therein that are relevant to the validity and execution of the contract, including the civil, fiscal and security identification numbers and the validity of the respective documents.

out, guaranteeing the necessary conditions to its successful development, as well as the fulfillment of the duties established in Article no. 13 of the Research Fellowship Holder Statute (template will be made available by FCT);

g) Updated document proving the exclusivity dedication regime (template will be made available by FCT).

The granting of the fellowship is still dependent on:

- The fulfillment of all the requirements listed in this Opening Call;
- the results of scientific evaluation;
- the absence of unjustified non-compliance with the fellowship holder during previous s directly or indirectly FCT funded fellowships;
- FCT available budget.

The lack of any of the necessary documents to complete the contracting procedure implies the expiration of the fellowship granting and conclusion of the process; applicants have up to 6 months after the disclosure of the provisional granting to present all of the listed documents.

11. FUNDING

Fellowship's payment will start after returning the signed contract to FCT, which should happen within the 15 working days after its delivery.

The fellowships awarded under this call will be financed by FCT using the State Budget fund and, whenever eligible, using the European Social Fund (ESF), under the PORTUGAL2020 Programme, in particular, under *Programa Operacional Regional do Norte (NORTE 2020)*, *Programa Operacional Regional do Centro (Centro 2020)* and *Programa Operacional Regional do Alentejo (Alentejo 2020)*, or any other funding schemes that might be approved, according to the respective requirements.

12. FELLOWSHIP COMPONENTS

A monthly maintenance allowance is granted to fellowship holders, in accordance with the table in Annex I of the RBI. The fellowship may also include additional allowances, according to RBI's Article no. 18 and the values indicated in its Annex II.

All fellowship holders have a personal accident insurance related to the research activities, supported by the FCT.

All fellowship holders who are not beneficiaries of any social protection regime can use the right to social security through the voluntary social insurance regime, under the terms of the Contributory Scheme of the Social Security System. FCT will ensure the charges resulting from contributions under the terms and within the limits provided in

Article 10 of the EBI.

13. PAYMENT OF THE FELLOWSHIP COMPONENTS

Payments due to the fellowship holder are made by bank transfer to the respective indicated account. The monthly maintenance allowance is paid on the first working day of each month.

Registration, enrolment or tuition fees components are paid directly by FCT to the national institution where the fellowship holder is enrolled in the PhD programme.

14. TERMS AND CONDITIONS of PhD FELLOWSHIP RENEWAL

The renewal of the fellowship always depends on the fellowship holder submission, within 60 working days prior to the renewal start date, of the following documents:

- declaration issued by the supervisor(s) and by the host institutions(s) attesting the work plan development and the evaluation of the respective activities;
- updated document proving compliance with the exclusive dedication regime;
- Declaration demonstrating the enrolment renewal in the study cycle leading to the PhD degree.

15. INFORMATION AND PUBLICITY OF THE GRANTED FUNDING

All the R&D activities carried out by the fellowship holder, directly or indirectly financed by the fellowship, namely communications, publications and scientific creations, as well as thesis, must include the reference to FCT and European Social Fund (ESF) financing. In particular, these references should mention the following operational programs: *Programa Operacional Regional do Norte (NORTE 2020)*, *Programa Operacional Regional do Centro (Centro 2020)* and *Programa Operacional Regional do Alentejo (Alentejo 2020)*, or additional funding schemes that might be approved. Insignia of FCT, MCTES, ESF and EU must therefore be included in the documents referring to these actions, according to the graphic rules of each operational program.

The disclosure of research results funded according to the RBI provisions must comply with the open access guidelines, publications and other research results in accordance with FCT rules. For all the fellowships, in particular in case of European funded actions, namely the ESF, may be performed monitoring and controlling actions by national or European entities according to the applicable legislation.

Fellowship holders must therefore collaborate and provide all the required information, including answering to surveys and evaluation studies in this area, even though the fellowship might have already ceased.

16. NON-DISCRIMINATION AND EQUAL ACCESS POLICY

FCT promotes a policy of non-discrimination and equal access, thus no applicant may be privileged, benefited, damaged or deprived of any right or exempt from any duty. This includes ancestry, age, sex, sexual orientation, marital status, family situation, economic situation, education, origin or social condition, genetic heritage, reduced work capacity, disability, chronic disease, nationality, ethnicity or race, land of origin, language, religion, political or ideological beliefs or trade union affiliation.

17. APPLICABLE LEGISLATION AND REGULATIONS

The present Call is governed by this Opening Notice, the FCT Regulation of Research Fellowships, approved by the Regulation no. 950/2019, published in the Series II of the DR, of 16th of December 2019, by the Research Fellowship Holder Statute, approved by Law no. 40/2004, of 18th of August, in its current version, and by other applicable national and European legislation.

FCT also recommends the careful reading of all the documentation supporting the application, namely, the Application Guide and the Evaluation Guide, available at FCT website at:

<https://www.fct.pt/apoios/bolsas/concursos/individuais2021.phtml.en> .