

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

### 1 (one) Research Fellowship (BI) for a MSc student

1 Research Fellowship(s) (BI) is(are) open at the **FCiências.ID – Associação para a Investigação e Desenvolvimento de Ciências**, for the project “Compound extremes in Mediterranean temperature, wind and wildfires”, financed by Own funding for the development of R&D projects in the area of Earth Sciences , under the following conditions:

1. **Scientific Area:** Earth Sciences

2. **Requirements for admission:** Bachelor’s degree in Statistics, Mathematics, Physics, Meteorology, Oceanography and Geophysics or similar areas. The candidates must be able to program using R/RStudio, Python or Matlab.

3. **Additional optional skills and qualifications:** Experience in Data Analysis and a good level of English both written and oral.

4. **Contracting requirements:** Presentation of the academic qualifications and/or diplomas. Enrolment in a Master’s degree course.

5. **Work plan:**

The purpose of this task is to analyse compound extremes in the light of Dynamical Systems theory. The recurrence times at a given point P of a chaotic attractor are distributed according to a generalized Pareto distribution, whose parameters are given by the local fractal dimension and the local stability at P. Recently, these ideas have been extended to compound extremes, and applied in the context of climate extremes. The computation of a set of local dynamical properties has been put forward as an alternative to statistical analysis for assessing the risk of compound extremes. This task consists of the application of this methodology to the available data for Mediterranean wind, temperature and wildfires, with the purpose of assessing its advantages and drawbacks with respect to the more traditional approaches. The basic assumption of the method is that the geophysical data under consideration are associated with trajectories following a chaotic attractor of the equations that describe the evolution of the atmospheric variables, with the presence of some noise. A MSc thesis and an international publication are the expected outcomes.

6. **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 (Reg. 950/2019 published in DR on 16<sup>th</sup> December: <https://dre.pt/application/file/a/127230968>, or at the FCT website: <https://www.fct.pt/apoios/bolsas/regulamento.phtml.pt>), and FCiências.ID Fellowship Regulation, as approved on 12<sup>th</sup> May 2020 (available at [Regulamento de Bolsas de Investigação Científica da FCiências.ID](https://www.fciciencias.id/regulamento-de-bolsas-de-investigacao-cientifica-da-fciciencias.id)).

7. **Place of work:** The work will be developed at the BioISI -Instituto de Biosistemas e Ciências Integrativas, Faculdade de Ciências da Universidade de Lisboa, under the scientific supervision of Professor Ana Nunes and Professor Carlos da Câmara.

8. **Fellowship duration:** This position is initially opened for 6 months due to start in July 2023. The fellowship contract may be potentially renewed for 3 months.

9. **Monthly allowance:** The fellowship amounts to € 930,98, according to [table values](#) of the FCiências.ID Fellowship Regulation. The fellowship holder will have a personal accident insurance and can ensure the right to social

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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.

10. **Evaluation and selection process:** Candidates will be assessed by CV (70%), motivation letter (10%) and Interview (20%).

Applicants whose application is scored with a final classification of less than 80 points are not eligible for granting a fellowship.

11. **Selection Committee:** President: Professor Patrícia de Zea Bermudez, FCUL; Effective members: Professor Carlos da Câmara, FCUL, and Professor Ana Nunes, FCUL; Alternate members: Professor Célia Gouveia, FCUL and IPMA, and Professor Lisete de Sousa, FCUL.

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

13. **Deadlines:** This call for applications is open from 22/05/2023 to 07/06/2023 .

14. **Application:** Applications should be sent via e-mail to [pcbermudez@fc.ul.pt](mailto:pcbermudez@fc.ul.pt), by attaching the following documents:

- a. Curriculum vitae;
- b. Certificate of completion of previous degree;
- c. Motivation letter.

15. **Processing of personal data:** FCIências.ID – Associação para a Investigação e Desenvolvimento de Ciências, as the controller under the General Data Protection Regulation, collects and processes the personal data requested in the context indicated in paragraph 14., under the legitimate interests in ensuring the award of the research fellowship to candidates with the indicated profile.

The personal data will be kept for the period necessary for the execution of the purposes for which they are intended, being ensured the processing and protection in an appropriate and diligent way, the confidentiality and integrity of these data, through appropriate technical and organizational measures.

Personal data may be transmitted to third parties, namely the entity funding the research project, solely for the purposes specifically established. In this sense, whenever the transfer of personal data to countries outside the European Union and/or international organizations is necessary, compliance with the applicable legal provisions is ensured.

You have the right to request access, rectification, elimination, limitation of processing, the right to object and also data portability (if technically feasible), through the e-mail address: [dpo@fciencias-id.pt](mailto:dpo@fciencias-id.pt). You also have the right to lodge a complaint with the National Data Protection Commission.

For more information, we recommend consulting the Internal Rules of Data Protection of FCIências.ID - Association for Research and Development of Sciences at <https://fciencias-id.pt/>.

16. **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](mailto:fciencias.id@fciencias-id.pt)) within 15 business days after the notification date

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**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 for 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>.