

## 1 Research Initiation Grant (M/F)

Call open for applications for a Research Initiation Grant within the framework of project “Adaptive Optics for High-Angular Astronomical Observations”, financed by *Faculdade de Engenharia da Universidade do Porto*, under the following conditions:

**Scientific Area:** Physics Engineering

**Admission requirements:**

- Be a student enrolled in a higher technical professional course, a bachelor's degree, in an integrated master's degree or in a master, in the area of Physics Engineering, a requirement to be duly proven at the time of signing the contract.

Or

- Be a holder of academic degree (bachelor's degree) enrolled in a non-academic degree course integrated in the educational project of a higher education institution, developed in association or cooperation with one or more R&D units, a requirement to be duly proven at the time of signing the contract.

*If the degree has been awarded by a foreign higher education institution, it must comply with the provisions of the Decree-Law no. 66/2018, of august 16th, and any formalities established there must be fulfilled until the time of signing the contract.*

Note: The Research Initiation Grant cannot be awarded to those who have already benefited from a research scholarship awarded under the terms of the EBI, according to no. 3 of article 9º of the Research Grants from University of Porto - Regulation No. 184/2021, of 03 March.

**Activity Outline:**

1. State of the art in wavefront estimation in the focal plane using phase diversity techniques in adaptive optics systems.
2. Implementation of algorithms for estimating wavefront from focal-plane intensity data on 10m-class ground-based telescopes and beyond.
3. Report writing

**Legislation and regulations:** Law N.º. 40/2004, of 18th August, in its current wording (Statutes of Scientific Research Fellow) and Regulation of Research Grants of University of Porto, in force.

**Work place:** The work will be developed at the Department of Physics Engineering of the Faculty of Engineering of the University of Porto (FEUP), under the scientific supervision of Professor Carlos Manuel Correia da Silva.

**Grant duration:** Initial duration of six (6) months, with the predicted starting date in **March 2024**, on an exclusive basis eventually renewable but never exceeding the project duration.

If the contracting procedures do not allow the scholarship to have the minimum duration of 1 consecutive month, in accordance with paragraph 2 of article 9 of the Regulation of Research Grants of University of Porto, the grant will not be awarded.

**Stipend:** The grant stipend amounts to 601,12€ according to the table of values of the Regulation of Research Grants of University of Porto.

The payment will be made by bank transfer.

**Selection procedure:**

Curricular evaluation which will focus on the merit of the candidate and the following criteria will be valued:

- a) Academic training in the field of Physical Engineering or similar area - 4 points; in related areas – 2 points, other areas – 0 points.
- b) Average of the curricular units completed (less than 14 values – 4 points; equal to or greater than 14 values and less than 18 values – 6 points; equal to or greater than 18 values – 8 points);
- c) Proven experience in the area of adaptive optics (no experience – 0 points; less than 1 year – 2 points; greater than or equal to 1 year – 4 points);

The two best ranked candidates, according to the above criteria, will be called for an interview. This will have an additional score of up to 4 points.

If the minimum score of 10 points is not reached by any of the candidates, the scholarship may not be awarded.

**Selection Jury:**

President: Professor Doutor Paulo Jorge Valente Garcia

Effective member: Doutor Carlos Manuel Correia da Silva

Effective member: Professor Doutor Carlos Daniel Diogo Matias Pintassilgo

Supplementary member: Professor Doutor António José dos Santos Silva

Supplementary member: Professor Doutor Jaime Enrique Villate Matiz

**Advertisement of final decision:** The results of the evaluation will be released to the candidates by email to the email address indicated in the application process.

**Deadline for applications and form of presentation of the applications:**

The call is open from **25/03/2024 to 08/04/2024** (until 23h59m, GMT time).

Applications must be formalized by email to [carlos.correia@fe.up.pt](mailto:carlos.correia@fe.up.pt) and to [recursoshumanos@fe.up.pt](mailto:recursoshumanos@fe.up.pt), clearly stating the reference **FEUP-AO-PHASE** and including the following pdf documents: Motivation letter, Copy of certificates evidencing academic degree detailed

Curriculum Vitae, Declaration on honour that the candidate fulfils the requirement contained in the no. 3 of article 9 of the Regulation for Research Grants of the University of Porto (model below) and other documents considered relevant by the applicant.

Declaration on honour

I, \_\_\_\_\_ (identification of the scholarship holder), holder of the Citizen Card / Visa / Residence Permit no. valid until \_\_\_\_\_, declare under honour, to be in the conditions of no. 3 of article 9<sup>o</sup> of the Research Grants from University of Porto - Regulation No. 184/2021, of 03 March.

Porto, \_\_/\_\_/\_\_

Signature

\_\_\_\_\_

(scholarship holder)