

Notice of Opening of the Call for the Award of Two (2) Research Scholarships for Doctoral Degree

The Physics Center of the Universities of Minho and Porto (CF-UM-UP) opens a call for the award of two research scholarships, hereinafter referred to as Research Grants for Doctorate, in the areas of Physics or Physics Engineering, under the Grant Regulation Research Foundation (RBI) and the Research Fellowship Statute (EBI).

The scholarships will be financed by the *Fundação para a Ciência e Tecnologia* (FCT) under the Collaboration Protocol for the Financing of the Multiannual Plan for Research Grants for Doctoral Students, signed between FCT and the R&D Unit *Centro de Física das Universidades do Minho e do Porto*, hereinafter referred to as "CF-UM-UP" (UI 04650).

1. APPLICATION SUBMISSION

The contest is open between February 27th 2023 and 17:00 (Lisbon time) on March 27th 2023.

Applications and supporting documents for the application provided for this Notice of Opening of the Tender must be submitted, mandatorily, by email sent to bolsas@ecum.uminho.pt with the reference 13/ECUM/CFUM/2023 - UIDB/04650/2020, in subject

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

The provision of false statements or the realization of acts of plagiarism by part of the candidates is reason for cancellation of the application without prejudice to the adoption of other measures of penalty.

2. TYPE AND DURATION OF THE RESEARCH GRANTS

The PhD research grants are intended to finance the realization, by the grantees, of research activities leading to the achievement of an academic doctorate degree in Portuguese universities.

The research activities leading to obtaining the academic doctorate degree will take place at the CF-UM-UP, which will be the host institution for the grant holder, without prejudice to the work being carried out in collaboration between more than one institution.

The research activities leading to the achievement of the academic doctorate degree of the selected grants holder must be framed in the plan of activities and strategy of the CF-UM-UP, and must be developed within the scope of the

- Doctoral Program in Physics "MAP-fis", run jointly by the Universities of Minho, Aveiro and Porto.

The work plan may take place in full or in part at a national institution (scholarship in the country or mixed scholarship, respectively).

The duration of the grants are, as rule, annual, renewable up to a maximum of three years (36 months), and grants cannot be awarded for a period of less than 3 consecutive months.

In case of mixed grants, the period of the workplan in a foreign institution cannot be more than 24 months.

3. RESEARCH GRANT RECIPIENTS

Research Grants for PhD are intended for registered candidates or candidates who meet the necessary conditions to register for the Doctoral Program mentioned in point 2 of this Notice and who intend to develop research activities leading to the academic degree of Doctor in the CF-UM-UP, or in host institutions associated with it.

4. ADMISSIBILITY

4.1 Candidate's Admissibility Requirements

Can apply for this competition:

- Nationals citizens or citizens of other States members of the European Union;
- Citizens of third States;
- Stateless;
- Citizens who are beneficiaries of a political refugee status.

To apply for the PhD Research Scholarship it is necessary to:

- Hold a master's degree or legal equivalent, or hold a bachelor's degree and have a particularly relevant academic and scientific curriculum, that attests the ability to carry out a doctorate in the areas of Materials Engineering or in areas considered to be related, that enable the candidate to develop activities within the scope of the research lines of the CF-UM-UP (<https://www.cf-um-up.pt/index.php/about-us/strategic-research-lines#>), presentation at national and international conferences, publication of results in peer-reviewed journals indexed in internationally recognized data, and active involvement in science dissemination activities;
- Residing in Portugal on a permanent and regular basis, if the work plan associated with the scholarship takes place, partially, in foreign institutions (mixed scholarships), the requirement is applicable to both national and foreign citizens;
- Not having benefited from a doctoral or doctoral grant in companies directly financed by the FCT, regardless of its duration;
- Not holding a Doctor degree.

4.2 Application Admissibility Requirements

It is essential, under penalty of non-admission to the Tender, to attach the following documents to the application:

- Elements of identity ID card/citizen card/passport;
- Candidate's *curriculum vitae* ;
- Certificates of qualification of the academic degrees held, specifying the final classification and, if possible, the classifications obtained in all subjects taken, or, alternatively, a declaration of honor by the candidate that he completed the licentiate or master degree 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, a declaration of honor by the candidate that he obtained recognition of the foreign degree equivalent to that of a graduate or Master by the end of the application deadline;
- Motivation letter, with a brief description of the PhD project to be developed within the framework of the scientific areas developed at the CF-UM-UP;
- Letters of Recommendation (two).

Write the application and all documents associated with it, including letters of motivation and recommendation, 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 candidates holding foreign and national academic degrees,

it is mandatory to recognize these degrees and convert the respective final classification in the Portuguese rating scale.

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 that you consult the DGES portal at the following address: <https://www.dges.gov.pt>.

- Candidates that don't present proof of recognition of foreign qualifications will be admitted to the competition, and the evaluation conditions described in point 6.1 of the notice will apply.
- Only candidates 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 still do not have a certificate of course completion, a declaration of honor from the candidates that they have completed the necessary qualifications for the purposes of the Tender will be accepted by the end of the application period. The granting of the scholarship is always dependent on the presentation of proof of ownership of the academic qualifications necessary for the granting of the scholarship.

5. WORKPLAN AND SCIENTIFIC ORIENTATION OF THE SCHOLARSHIP

The PhD projects will be carried out in one of the research areas of the CF-UM-UP

(<https://www.cf-um-up.pt/index.php/about-us/strategic-research-lines#>) and under the supervision of members of this Center, in accordance with the curriculum and operating rules of the Doctoral Program in Physics "MAP-fis", set of the Universities of Minho, Aveiro and Porto, <http://www.map.edu.pt/fis/>

6. EVALUATION CRITERIA AND BONUS

6.1 Evaluation Criteria

The evaluation of the candidates' merit is analyzed according to the following criteria and sub-criteria and corresponding weights, on a scale of 1 to 5 values:

- A. Candidate Merit - MC (70%):
- A.1: Academic path (which reflects the classifications of academic degrees, according to the Reference Table), with a weighting of 40%;
 - A.2: Affinity of the Degree and Master's Courses to the Doctoral Program, with a weighting of 10%;
 - A.3: Personal curriculum (which reflects the scientific and professional path including publications and participation in projects), with a weight of 40%;
 - A.4: Letter of motivation and letters of recommendation, with a weighting of 10%.

The candidate's Merit rating (MC) will be obtained by applying the following formula:

$$MC=(A1\times 0,4) + (A2\times 0,1) + (A3\times 0,4) + (A4\times 0,1)$$

Candidates classified in the first five (5) positions, who obtain a minimum classification of 4 values in the MC, will be admitted to the Interview phase, the Jury proceeding to the evaluation of the following sub-criteria:

- B. Interview – ENT (30%)
- B.1: Interpersonal skills (30%);
 - B.2: Demonstrated knowledge in the contested area (40%);
 - B.3: Motivation (20%);
 - B.4: Language skills (10%).

The assessment of each of the sub-criteria of the Interview is made according to the following levels:

- High – 5 values;
- Good – 4 values;

- Sufficient – 3 values;
- Reduced – 2 values;
- Insufficient – 1 value.

The Interview classification (ENT) will be obtained by applying the following formula:

$$ENT=(B1 \times 0,3) + (B2 \times 0,4) + (B3 \times 0,2) + (B4 \times 0,1)$$

The **final classification (CF)** of Candidate Merit (MC) and Interview (ENT) will be obtained by applying the following formula:

$$CF=(MC \times 0,7) + (ENT \times 0,3) .$$

Table for defining the score for Subcriterion A.1 - Academic background

Bachelor + Master (pre or post Bologna) Integrated Master (300-360 credits)		Bachelor - 180 credits (pre or post Bologna)		Master (90-120 credits) (pre or post Bologna)	
Classification	Points A1	Classification	Points A1	Classification	Points A1
≥ 18	5,0	≥ 17	3,5	≥ 17	3,0
17	4,5	16	3,0	16	2,5
16	4,0	15	2,5	15	2,0
15	3,5	14	2,0	14	1,5
14	3,0	< 14	1,5	< 14	1,0
< 14	2,5				

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

- Candidates with diplomas issued by foreign higher education institutions may apply and will be evaluated using the same criteria as candidates with diplomas issued by Portuguese institutions, provided that they present, in the application, proof of recognition of academic degrees and conversion of final classification for the Portuguese classification scale under the terms of the applicable legislation.
- Candidates who do not present elements that prove they have obtained the recognition of the degree and the respective conversion of the grade to the Portuguese scale by the application deadline, will not be able to be evaluated in the A3 sub-criterion, being applied to them the minimum positive grade (10 values),
- In any case, scholarship contracts with candidates 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.

Candidates whose application is evaluated with a final grade lower than fourteen (14) are not eligible for the grant.

6.2 Bonification

Candidates with a degree of incapacity greater than 60% (duly proven) will be rewarded, with a factor of 1.05, in the classification of criteria A3, B and C.

7. EVALUATION

The evaluation panel is made up of the following elements:

- Luís Manuel Fernandes Rebouta, Associate Professor with Habilitation, Department of Physics, School of Science, University of Minho (coordinator)
- Mikhail Igorevich Vasilevskiy, Full Professor, Department of Physics, School of Science, University of Minho (panel member)
- Eduardo Filipe Vieira de Castro, Assistant Professor, Department of Physics and Astronomy, Faculty of Sciences of the University of Porto (panel member)
- António Joaquim Onofre Abreu Ribeiro Gonçalves, Associate Professor with Habilitation, Department of Physics, School of Science, University of Minho (substitute member)
- Bernardo Gonçalves Almeida, Assistant Professor, Department of Physics, School of Science, University of Minho (substitute member)

The evaluation panel will assess the applications in accordance with the evaluation criteria contained in this Opening Notice of the Tender, weighing the assessment elements.

All panelists, including the coordinator, commit to respect a set of responsibilities essential to the evaluation process, such as the duties of impartiality, the declaration of any potential situations of conflict of interest 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.

Panel members, including the coordinator, cannot be mentors or co-advisors of candidates with applications submitted to the competition.

A final evaluation form will be produced by the panel for each application, 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.

Minutes of the evaluation panel's meetings will be produced by all its members.

The minutes and their annexes must include the following information:

- Name and affiliation of all evaluation panel members;
- Identification of all excluded applications and the respective reasons;
- Methodology adopted by the panel for cases considered particular;
- Final Assessment Sheets for each candidate;
- Provisional list of classification and ranking of candidates, in descending order of final classification, of all applications evaluated by the panel;
- CDI statements by all panelists;
- Possible delegation of votes and powers due to justified absence.

8. RELEASE OF RESULTS

The evaluation results are communicated via e-mail to the e-mail address used by the candidate to send the application, or indicated in the application..

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

After the communication of the provisional list of the evaluation results, the candidates have a period of 10 working days to express their opinion at a prior hearing of interested parties, according to the articles 121 et seq. of the Code of Administrative Procedure.

The final decision will be rendered after the analysis of the statements presented during the preliminary hearing of interested parties. A complaint may be filed against the final decision within 15 working days, or,

alternatively, an appeal may be filed within 30 working days, both counting from the respective notification. Candidates who choose to submit a complaint must address their statement to the member of the Board of Directors of the FCT with delegated competence. Candidates who choose to present an appeal must address the same to the FCT Board of Directors.

10. REQUIREMENTS FOR SCHOLARSHIP GRANTING

Research fellowship contracts are signed directly with the FCT.

The following documents must obligatorily be sent, upon any granting of the grant, for the purpose of contracting:

- a) Copy of the civil, fiscal and, where applicable, social security identification document(s)
- b) Copy of the qualification certificates of the academic degrees held;
- c) Presentation of the recognition record of foreign academic degrees and conversion of the respective final classifications to the Portuguese classification scale, if applicable;
- d) Work plan;
- e) Proof of enrollment and enrollment in the Doctoral Program identified in this Notice;
- f) Document attesting the candidate's acceptance by the institution where the research activities will take place, ensuring the necessary conditions for its proper development, as well as the fulfillment of the duties foreseen in article 13 of the Research Fellowship Statute (draft of the declaration to be made available by the FCT);
- g) Document attesting the candidate's acceptance by the institution where the research activities will take place, guaranteeing the necessary conditions for its proper development, as well as compliance with the duties provided for in article 13 of the Research Fellowship Statute (draft statement to be made available by FCT);
- h) Updated document proving compliance with the exclusive dedication regime (draft statement to be made available by the FCT).

The granting of the scholarship is still dependent on:

- compliance with the requirements set out in this Opening Notice ;
- the result of the scientific evaluation ;
- non-existence of unjustified non-compliance with the scholarship holder's duties under the previous scholarship contract financed, directly or indirectly, by the FCT;
- FCT budget availability .

Failure to deliver any of the documents necessary to complete the grant contracting process, within 6 months from the date of communication of the decision to grant the grant conditional, implies the forfeiture of said grant and the closure of the process.

11. FINANCING

The payment of the scholarship will start after the return, by the selected candidate, of the duly signed scholarship contract, which must take place within a maximum period of 15 working days from the date of receipt.

The grant awarded in the context of this contest will be financed by the FCT with funds from the state budget and, when eligible, with funding from the European Social Fund, to be made available under the PORTUGAL2020, through, namely, the North Regional Operational Program (NORTH 2020), Regional Operational Program for the Center (Centro 2020) and the Regional Operational Program for Alentejo (Alentejo 2020), or others that may be approved, in accordance with the regulatory provisions established for that purpose.

12. COMPONENTS OF THE RESEARCH GRANT

Scholarship holder is allocated a monthly maintenance allowance in accordance with the table in Annex I of the RBI.

The exchange may also include other components, under the terms set out in article 18 of the RBI and for the amounts provided for in Annex II.

All scholarship holders benefit from a personal accident insurance for research activities, supported by the FCT.

All scholarship holders who are not covered by any social protection scheme can ensure the exercise of the right to social security by joining the voluntary social insurance scheme, under the terms of the Code of Contribution Schemes of the Social Security Social Security System, ensuring FCT the charges resulting from contributions under the terms and within the limits provided for in article 10 of the EBI..

13. PAYMENTS OF SCHOLARSHIP COMPONENTS

Payments due to the scholarship holder are made by bank transfer to the account identified by him. Payment of the monthly maintenance allowance is made on the first working day of each month.

Payments for the enrollment, enrollment and tuition fees are made by the FCT directly to the national institution where the scholarship holder is enrolled or enrolled in the PhD.

14. SCHOLARSHIP RENEWAL TERMS AND CONDITIONS

The renewal of the scholarship always depends on an application submitted by the scholarship holder, within 60 working days prior to the start date of the renewal, accompanied by the following documents:

- a) opinions issued by supervisors and/or host entities on the follow-up of the scholarship holder's work and the evaluation of his/her activities
- b) updated document proving compliance with the exclusive dedication regime;
- c) document proving the renewal of enrollment in the study cycle leading to a doctoral degree.

15. INFORMATION AND ADVERTISING OF THE FINANCING GRANTED

In all R&D activities directly or indirectly financed by the grant, namely, in all communications, publications and scientific creations, as well as theses, carried out with the support provided for in the grant, the mention of financial support from the FCT and the Fund must be expressed. European Social Program, namely through the North Regional Operational Program (NORTE 2020), the Center Regional Operational Program (Centro 2020) and the Alentejo Regional Operational Program (Alentejo 2020). For this purpose, the FCT, MCTES, FSE and EU insignia must be registered in the documents referring to these actions, according to the graphic norms of each operational program. The dissemination of research results funded under the RBI must comply with the open access rules for data, publications and other research results in force in the FCT. In all scholarships, and in particular in the case of actions supported by community funding, namely from the ESF, actions may be carried out.

monitoring and control by national and community bodies, in accordance with applicable legislation in this matter, with the grant-holders being obliged to collaborate and provide the requested information, which covers the carrying out of surveys and evaluation studies in this area, even if the scholarship has already ceased.

16. POLICY OF NON-DISCRIMINATION AND EQUAL ACCESS

The FCT promotes a policy of non-discrimination and equal access, whereby no candidate may be privileged,

benefited, harmed or deprived of any right or exempt from any duty on grounds, namely, of ancestry, age, sex, sexual orientation, marital status, family situation, economic situation, education, origin or social condition, genetic heritage, reduced work capacity, disability, chronic illness, nationality, ethnic origin or race, territory of origin, language, religion, political or ideological convictions and union affiliation.

17. LAWS AND REGULATIONS APPLICABLE

O Concurso rege-se pelo presente Aviso de Abertura, pelo Regulamento de Bolsas de Investigação da FCT, aprovado pelo Regulamento n.º 950/2019, publicado na II Série do DR de 16 de dezembro de 2019, pelo Estatuto do Bolseiro de Investigação aprovado pela Lei n.º 40/2004, de 18 de agosto, na redação em vigor, e pela demais legislação nacional e comunitária aplicável.