

### EURAXESS

# **Research Student Fellowship (BI – Bachelor) - DUNE**

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| 30 Apr 2024<br>Job Information   |                      |  |
| Organisation/Company   | LIP - Laboratório de | e Instrumentação e Física Experimental de Partículas |
| Department   | LISBON               |  |
| Research Field   | Physics              |  |
| Researcher Profile   | First Stage Researc  | cher (R1)  |
| Country  | Portugal             |  |
| Application Deadline   | 15 May 2024 - 17:0   | 0 (Europe/Lisbon)                                    |
| Type of Contract   | Temporary            |  |
| Job Status   | Full-time            |  |
| Hours Per Week   | 35                   |  |
| Offer Starting Date  | 1 Jun 2024           |  |
| Is the job funded through the EU Research<br>Framework Programme?      | Not funded by an E   | U programme  |
| Reference Number   | 2024.00258.CERN      |  |
| Is the Job related to staff position within a Research Infrastructure? | No                   |  |

## **Offer Description**

LIP opens a call for selection of fellows for one Research Student Fellowship (BI Bachelor) for participation in the project "ProtoDUNE at CERN: the path towards the DUNE neutrino experiment", project submitted in the framework of the Call for SR&TD Projects: Cooperation between Portugal and CERN, Ref. 2024.00258.CERN, funded by the Investment RE-C06-i06 – "Science Plus Training" of the PRR.

#### Work plan:

This work plan will take place in the context of the activities of the LIP group in the DUNE neutrino oscillation experiment.

The calibration strategy for the DUNE liquid argon time-projection chamber (LArTPC) detectors relies on an ionizing laser system (IoLS) developed by LIP. A first version of the IoLS has been installed in the DUNE prototype detector at CERN (ProtoDUNE), which is due to take charged particle beam data in the first half of 2024. The objective of this fellowship is the participation in the operation of the IoLS in ProtoDUNE, in particular in the assessment of the system performance. The laser track reconstruction methods previously developed within the group will be applied to the collected data to assess the performance of the system, with emphasis on the alignment of the apparatus. The results obtained during this fellowship will be presented and discussed in meetings with DUNE collaborators. This work plan is integrated in Task 1 of the project.

#### Legislation:

A fellowship contract will be established according to the "Regulations for Research Grants of the Foundation for Science and Technology" (<u>https://</u><u>files.diariodarepublica.pt/2s/2019/12/241000000/0009100105.pdf</u>) and to the Status of Scientific Research Fellow (Law nº 40/2004, August 18th, and its successive amendments).

Duration: The fellowship has a foreseen duration of 9 months, eventually renewable. The foreseen starting date is June 1, 2024.

Applicants should submit: a motivation letter, curriculum vitae, one or two reference letters, Bachelor diploma and a list and grades of university courses and other relevant documents, as a PDF file, by email to <u>natalia@lip.pt</u>. Reference letters in support of the application may be submitted, but are optional.

## Requirements

| Research Field  | Physics                       |
|-----------------|-------------------------------|
| Education Level | Bachelor Degree or equivalent |

#### Skills/Qualifications

The candidates should provide a clear demonstration of the ability to carry out a research program

#### Specific Requirements

Preference will be given to candidates that have had an initial contact with Neutrino Physics experiments.

| Languages                    | ENGLISH |
|------------------------------|---------|
| Research Field               | Physics |
| Years of Research Experience | 1 - 4   |

## **Additional Information**

#### Benefits

The monthly amount of € 990,98, is in accordance with the values stipulated in the "FCT Regulation for Research Studentships and Fellowships":

https://www.fct.pt/wp-content/uploads/2024/02/Tabela-de-Valores-SMM\_atualizacao-2024.pdf

This amount will be paid on a monthly basis through a bank transfer to the grant holder's bank account.

Other components, such as installation or travel support, if applicable, will be paid according to the same rules.

#### **Eligibility criteria**

Applicants should fulfill the requirements to join a course granting a higher academic degree (Master) or in a non-academic degree course, as stipulated in the "Regulations for Research Grants of the Foundation for Science and Technology" (Article 6).

When signing the contract, the candidate must present a proof of enrollment in the course granting, or not, a higher academic degree.

In the event the degree was awarded by a foreign higher education institution, the degree must comply with the provisions of the Decree-Law n<sup>o</sup>. 66/2018, of 16 August (<u>https://www.dges.gov.pt/en/pagina/degree-and-diploma-recognition?plid=1...</u>). The selected candidate must provide the recognition of the degree when signing the contract.

#### Selection process

#### Evaluation:

The members of the jury will take into consideration the CV (50%) and the research experience in the required field (50%).

If none of the candidates fulfills the appropriate profile, the scholarship will not be awarded.

#### Effective Members of the Jury:

- Dr. José Maneira (LIP)
- Dra. Sofia Andringa (LIP)
- Dr. Cristóvão Vilela (LIP)
- Dr. Nuno Barros (LIP)

#### Advertising / notification of results:

The results of the evaluation will be communicated by email; in case of disagreement, the candidates have a period of 10 working days to contest the decision, as provided for in the Code of Administrative Procedure in a preliminary hearing. At the end of this period, the arguments presented will be analyzed by the jury committee, who will simultaneously communicate the final decision to all the candidates who submitted allegations. The final results of the shortlisted applicants will be communicated by e-mail. In case of disagreement, the candidates have a period of 15 working days to contest the decision.

#### Additional comments

**Non-discrimination and equal access policy:** LIP actively promotes a nondiscrimination and equal access policy, wherefore no candidate can be privileged, benefited, impaired or deprived of any rights whatsoever, or be exempt of any duties based on their ancestry, age, sex, sexual preference, marital status, family and economic conditions, instruction, origin or social conditions, genetic heritage, reduced work capacity, disability, chronic illness, nationality, ethnic origin or race, origin territory, language, religion, political or ideological convictions and union membership.

Website for additional job details

https://www.lip.pt/?section=about&page=recruitment

### Work Location(s)

| Number of offers available | 1   |
|----------------------------|---|
| Company/Institute          | LIP - Laboratório de Instrumentação e Física Experimental de Partículas |
| Country                    | Portugal  |
| City                       | Lisbon  |
| Postal Code                | 1649-003  |
| Street                     | Av. Prof. Gama Pinto, nº 2  |
| Geofield                   |   |
|                            |   |
|                            |   |
|                            |   |

### Where to apply

E-mail

natalia@lip.pt

### Contact

| City        | LISBON                     |
|-------------|----------------------------|
| Website     | http://www.lip.pt          |
| Street      | Av. Prof. Gama Pinto, nº 2 |
| Postal Code | 1649-003                   |
| E-Mail      | natalia@lip.pt             |