

09/09/2022

Research Student Fellowship (BI – Bachelor) - FCC

Where to apply

Application Deadline: 26/09/2022 17:00 - Europe/London

Contact Details

Where to send your application.

COMPANY

LIP - Laboratório de Instrumentação e Física Experimental de Partículas

E-MAIL

ofelia@lip.pt

Hiring/Funding Organisation/Institute

ORGANISATION/COMPANY

LIP - Laboratório de Instrumentação e Física Experimental de Portugal
Partículas

DEPARTMENT

LISBON

ORGANISATION TYPE

Research Laboratory

WEBSITE

<http://www.lip.pt>

E-MAIL

natalia@lip.pt

ofelia@lip.pt

COUNTRY

CITY

LISBON

POSTAL CODE

1649-003

STREET

Av. Prof. Gama Pinto, nº 2

ORGANISATION/COMPANY

LIP - Laboratório de Instrumentação e Física Experimental de Partículas

RESEARCH FIELD

Physics

RESEARCHER PROFILE

First Stage Researcher (R1)

LOCATION

Portugal › LISBON

TYPE OF CONTRACT

Temporary

JOB STATUS

Full-time

APPLICATION DEADLINE

26/09/2022 17:00 - Europe/London

HOURS PER WEEK

35

OFFER STARTING DATE

01/10/2022

REFERENCE NUMBER

CERN/FIS-PAR/0035/2021 - BI (lic)

OFFER DESCRIPTION

LIP opens a call for selection of fellows for one Research Student Fellowship (BI – Bachelor) for participation in the project “Portuguese Participation in the Future Circular Collider (FCC)”, reference CERN/FIS-PAR/0035/2021, funded by FCT/MCTES through national funds (State Budget – OE).

Work plan:

The work plan will be carried out in the context of the activities of the LIP Phenomenology group, in particular, within the effort to perform perturbative radiative corrections to jet production in electron-positron collisions for the proposed future circular collider facility FCCee to be built on the CERN site.

The candidate will implement quark mass effects in QCD three-jet production observables produced by the hadronic decays of the Z-boson when the FCCee collider is running at the Z-pole. The candidate will perform a NLO calculation of this process and study the quantitative effects of quark masses in jet production. Given the projected experimental precision of the FCCee machine, it is expected that these effects are necessary for a complete phenomenological description of this process at the FCCee. This project is particularly relevant to the ongoing feasibility study of the physics potential of the future circular collider.

Legislation:

A fellowship contract will be established according to the “Regulations for Research Grants of the Foundation for Science and Technology” (<https://files.dre.pt/2s/2019/12/241000000/0009100105.pdf>) and to the Status of Scientific Research Fellow (Law n° 40/2004, August 18th, and its successive amendments).

Duration:

The fellowship has a duration of 4 months, with a foreseen starting date on October 1, 2022. The fellowship may eventually be renewed, until the maximum foreseen in the project and according to the terms of the FCT regulations.

The working plan will be carried out under the supervision of Dr. João Ramalho Pires.

Applicants should submit a curriculum vitae, Bachelor diploma and a list and grades of university courses and other relevant documents, as a PDF file, by email to natalia@lip.pt and ofelia@lip.pt

Application Period: From September 12 to September 26, 17:00 (Lisbon time)

More Information

ADDITIONAL INFORMATION

Benefits

The monthly amount of 875,98€ is in accordance with the values stipulated in the “FCT Regulation for Research Studentships and Fellowships”:

https://www.fct.pt/apoios/bolsas/docs/Tabela_de_Valores_SMM_2022.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 contracting, it will also be necessary the candidate present a proof of enrollment in the course granting, or not, a higher academic degree.

In the event of the degree was awarded by a foreign higher education institution, the degree must comply with the provisions of the Decree-Law n.º. 66/2018, of 16 august (<https://www.dges.gov.pt/en/pagina/degree-and-diploma-recognition?plid=1536>). The selected candidate must provide the recognition of the degree when signing the contract.

Selection process

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 fulfils the appropriate profile, the scholarship will not be awarded.

Members of the Jury:

Dr. João Pires (LIP)

Dr. Grigorios Chachamis (LIP)

Dr. Liliana Apolinário (LIP)

Alternate Members

Prof. Ricardo Gonçalo (Universidade de Coimbra / LIP)

Prof. José Guilherme Milhano (IST/LIP)

Additional comments

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 analysed 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.

Equality and non-discrimination Policy

We are committed to promoting equality and preventing discrimination, and welcome applications of all qualified candidates irrespective of their age, disability, gender, marital status, pregnancy, maternity, gender identity, race, colour, nationality, ethnicity or national origin, sexual orientation, religion or belief, social background or culture or trade union membership.

Web site for additional job details

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

REQUIREMENTS

Required Research Experiences

RESEARCH FIELD

Physics

YEARS OF RESEARCH EXPERIENCE

1 - 4

Offer Requirements

REQUIRED EDUCATION LEVEL

Physics: Bachelor Degree or equivalent

REQUIRED LANGUAGES

ENGLISH: Excellent

Skills/Qualifications

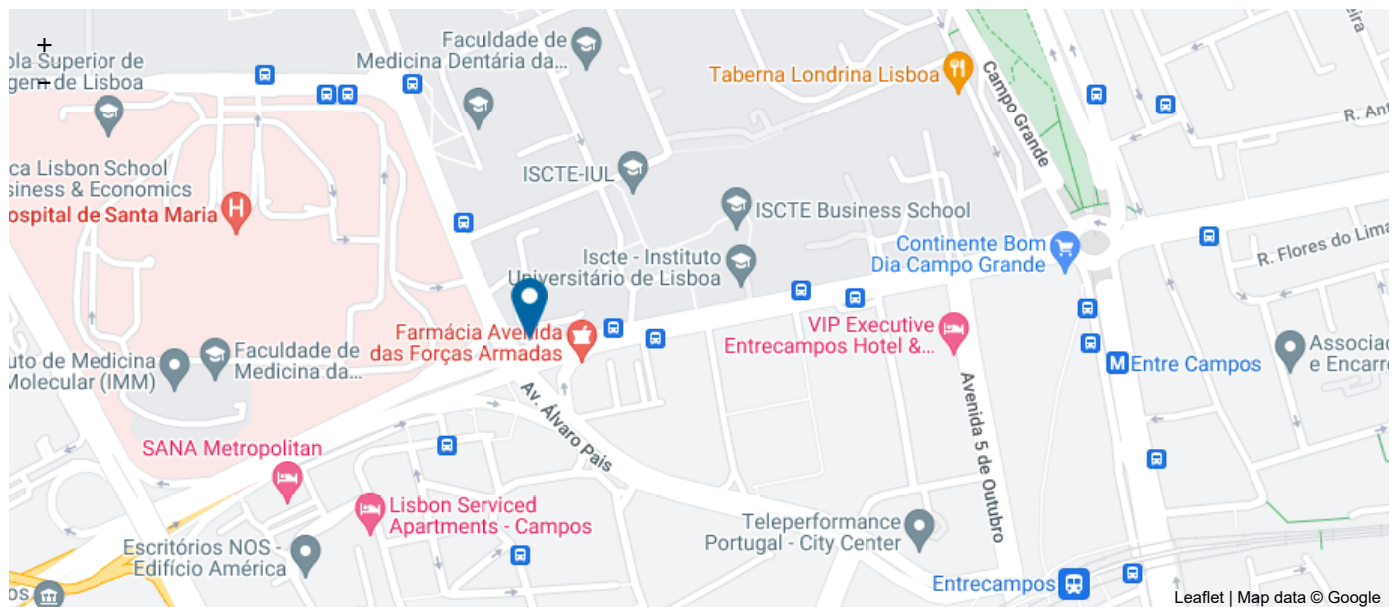
The candidate should provide a clear demonstration of the ability to carry out a research program.

Knowledge of Particle Physics, Quantum Field Theory and Quantum Chromodynamics; experience in C/C++, Python and ROOT.

Specific Requirements

Knowledge on high energy particle physics experiments will also be favoured.

Map Information



WORK LOCATION(S)

1 position(s) available at
LIP - Laboratório de Instrumentação e
Física Experimental de Partículas
Portugal
LISBON
1649-003
Av. Prof. Gama Pinto, nº 2

EURAXESS offer ID: 834952

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