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JUNIOR RESEARCHER

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12 Apr 2023

Job Information

Organisation/Company	LIP - Laboratório de Instrumentação e Física Experimental de Partículas
Department	Coimbra
Research Field	Physics » Applied physics
Researcher Profile	Recognised Researcher (R2)
Country	Portugal
Application Deadline	28 Apr 2023 - 17:00 (Europe/Lisbon)
Type of Contract	Temporary
Job Status	Full-time
Hours Per Week	35
Offer Starting Date	1 Jul 2023
Is the job funded through the EU Research Framework Programme?	Not funded by an EU programme
Reference Number	CERN/FIS-TEC/0017/2021
Is the Job related to staff position within a Research Infrastructure?	No

Offer Description

The Laboratory of instrumentation and Experimental Particle Physics (LIP) is opening a selection tender for one vacancy of doctorate – Junior Researcher - to perform research in the scientific area of Experimental Particle Physics in the framework of the project “ImprovingPT (Optimization, construction and first in-beam tests of range monitoring and quality assurance systems for the improvement of proton therapy)” – ref#. CERN/FIS-TEC/0017/2021 (01/01/2022 - 31/12/2023) funded by FCT/MCTES with national funds through the State Budget (OE).

The candidate will be hired under a non-fixed term work contract, pursuant to the dispositions of articles 6(1) b)) and 7 of the Decree-Law no. 57/2016 of 29th August, updated by the Law n° 57/2017, of 19th July and to the Labour Code, under its current reading.

The applicant should have a PhD in physics, physics engineering, biomedical engineering, or a related field (more than 3 years at the start of the contract). The candidate should have experience in acquisition of experimental data in radiotherapy beams, in programming and a good command of English language, both oral and written. Experience with Monte Carlo simulation tools such as GEANT4 and data analysis such as ROOT and Matlab will be advantageous.

Workplan:

The focus of this R&D work is to carry out experimental work and subsequent data analysis to test a prompt gamma ray detector in a therapeutic proton beam. This work will be performed by irradiating homogeneous phantoms (e.g., PMMA or solid water). The beam measurements will be performed at the HollandPTC center in Delft, The Netherlands, for about one week in July/August 2023. A Monte Carlo simulation of the prototype system will also be performed to validate the experimental results. This work is part of a Portuguese funded project called ImprovingPT (Optimization, construction and first in-beam tests of range monitoring and quality assurance systems for the improvement of proton therapy).

Applicable Legislation

- Decree-Law no. 57/2016 of 29th August, which approved the doctorate hiring regime destined to stimulate scientific and technological employment for all knowledge areas (RJEC), updated by the Law n° 57/2017, of 19th July.
- Labour Code approved by Law no. 7/2009 of 12th February, under its current reading
- Regulatory Decree n° 11-A/2017, of 29th December.

Pursuant to article 13 of RJEC, the tender selection panel shall be formed by:

Effective:

- Prof. Paulo Crespo
- Prof. Patrícia Gonçalves
- Prof. Jorge Sampaio

Alternates:

- Prof. Isabel Lopes
- Prof. Ricardo Gonçalo

Application formalization shall be made by sending:

- a) Motivation letter
- b) Detailed Curriculum Vitae
- c) Certificate or diploma copy. Recognition of foreign diploma should also be delivered, if applicable;
- d) Other documentation relevant for the evaluation of qualifications in a related scientific area.

Candidates shall submit their application files and supporting documentation, in a digital form, in PDF format, via email to bolsas@coimbra.lip.pt.

All candidates who formalize their applications in an improper way or fail to prove the requirements imposed by this tender are excluded from admission. In case of doubt, the panel is entitled to request any candidate to present further documentation supporting his/her statements.

False statements provided by the candidates shall be punished by law.

Both admitted and excluded candidate list and final classification list shall be sent by email to all candidates with delivery receipt.

Preliminary Hearing and Final Decision Deadline: Pursuant to article 121 of the Administrative Procedure Code, after notified, all candidates have 10 working days to respond. Panel's final decisions are pronounced within a period of 90 days, from application deadline.

This tender is exclusively destined to fill the vacancy and can be terminated at any time until approval of final candidate list, expiring with the respective occupation of said vacancy.

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.

Pursuant to article 3 (3) of Decree-Law no. 29/2001 of 3 February, disabled candidates shall be preferred in a situation of equal classification, and said preference supersedes any legal preferences. Candidates must declare, on their honour, their respective disability degree, type of disability and communication/expression means to be used during selection period on their application form, under the regulations above.

The panel has approved this announcement in meeting held on 31st March 2023.

Requirements

Research Field Physics » Applied physics

Education Level PhD or equivalent

Skills/Qualifications

The applicant should have a PhD in physics, physics engineering, biomedical engineering, or a related field (more than 3 years at the start of the contract).

Specific Requirements

The candidate should have experience in acquisition of experimental data in radiotherapy beams, in programming and a good command of English language, both oral and written. Experience with Monte Carlo simulation tools such as GEANT4 and data analysis such as ROOT and Matlab will be advantageous.

Languages	ENGLISH
Level	Good
Research Field	Physics » Applied physics

Additional Information

Benefits

Monthly remuneration to be paid is the one defined by article 15 (1) of the Law n° 57/2016 of 29th August updated by the 57/2017, of 19th July, corresponding to level 33 of the Single Salary Table, i.e. 2.206,05 Euros.

Eligibility criteria

Any national, foreign or stateless candidates who hold a doctorate degree in Physics or related scientific area and a scientific and professional curriculum whose profile is suited for the activity to be performed can submit their applications.

All candidates who formalize their applications in an improper way or fail to prove the requirements imposed by this tender are excluded from admission. In case of doubt, the panel is entitled to request any candidate to present further documentation supporting his/her statements.

False statements provided by the candidates shall be punished by law.

In the event the doctorate degree was awarded by a foreign higher education institution, the degree must comply with the provisions of Decree-Law no. 341/2007 of 12th October.

Selection process

Pursuant to article 13 of RJEC, the tender selection panel shall be formed by:

Effective

- Prof. Paulo Crespo
- Prof. Patrícia Gonçalves
- Prof. Jorge Sampaio

Alternates

- Prof. Isabel Lopes
- Prof. Ricardo Gonçalo

Pursuant to article 5 of RJEC, selection is to be made based on the evaluation of the scientific and curricular career of the candidates whose application is considered admissible.

Scientific and curricular career evaluation focuses on the last five years taking into account the relevance and quality of:

- a) scientific and technological production deemed most relevant by the candidate;
- b) research activities, experimental and applied work deemed most impactful by the candidate;
- c) knowledge extension and dissemination activities, namely under the scope of the promotion of culture and scientific practices, deemed most relevant by the candidate;

The five-year period mentioned above can be extended by the panel, if requested by the candidate, whenever the suspension of scientific activities is reasoned by socially protected grounds, like paternity/maternity leave, long-term serious illness, and other legal situations of unavailability to work.

Evaluation criteria are the following:

Evaluation of the CV of the candidates, namely their scientific merit and research capabilities as demonstrated by the diffusion of the scientific results achieved and by the participation in research projects in scientific fields relevant for the proposed work program.

Each member of the panel will value the criteria for each candidate, taking into account the requirements of the duties to be performed, the adequacy of previous experience, his/her relationship to the relevant areas and sub-areas.

The selection will consider the applicant's Curriculum Vitae (50%) and its relevance to project needs (50%).

The panel shall deliberate by means of roll-call vote justified under adopted and disclosed selection criteria, with no abstentions allowed.

After selection criteria application, the panel shall prepare an ordered list of the approved candidates with corresponding classifications. The panel's final decision shall be validated by the head of the institution, who is also responsible for the hiring.

Both admitted and excluded candidate list and final classification list shall be sent by email to all candidates.

Preliminary Hearing and Final Decision Deadline: Pursuant to article 121 of the Administrative Procedure Code, after notified, all candidates have 10 working days to respond. Panel's final decisions are pronounced within a period of 90 days, from application deadline.

Website for additional job details

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

Work Location(s)

Number of offers available	1
Company/Institute	LIP Coimbra-Portugal
Country	Portugal
State/Province	Coimbra
City	Coimbra
Postal Code	3004-516
Street	Rua Larga, Depto Fisica Univ.Coimbra

Where to apply

E-mail bolsas@coimbra.lip.pt

Contact

City	Coimbra
Website	http://www.lip.pt
Street	Departamento de Física da Universidade de Coimbra, Rua Larga
Postal Code	3004-516
E-Mail	seclip@coimbra.lip.pt
Phone	+351239833465