

(BL226/2023-IST-ID)

Post-Doctoral Research Fellowships

Applications are open for 2 Post-Doctoral Research Fellowships, within the framework of project QuantHEP an HQCC of the R&D institution CeFEMA/IST-ID, with reference QUANTERA/0001/2019 and QUANTERA/0004/2021, respectively, financed by national funds through FCT/MCTES (PIDDAC), under the following conditions:

Scientific Area: Physics

Admission Requirements:

- PhD in Physics or related areas;
- Motivation for scientific research;
- Ability to work in a team.

According to Article 7 of FCT Regulation for Research Studentships and Fellowships (Reg. nr. 950/2019):

- a) to hold a PhD degree obtained in the 3 years previously to the submission of the fellowship application;*
- b) to have carried out the research work that led to the PhD degree in a different entity from the host institution of the fellowship;*
- c) Not to exceed, with this fellowship contract, including the possible renovations, an accumulated period of 3 years in this type of fellowship, continuously or with interruptions;*
- d) Not to have previously held a post-doctoral fellowship from IST-ID.*

Workplan: In the context of project QuantHEP, the work to be carried out includes the following research tasks: T1.3 - Small-scale analysis with real data using quantum algorithms and T2.3 - Quantum simulation of basic scattering process and benchmarking. In the context of project HQCC, the work to be carried out includes the following research tasks: T2.1 - Speeding up subroutines by quantum computation, and T3.2 - Learning quantum data.

Legislation and Regulations: Statute of Scientific Research Fellow, approved by Law nr. 40/2004, of August 18, as worded by Decree-Law nr. 123/2019, of August 28; FCT Regulation for Research Studentships and Fellowships, available on <https://www.fct.pt/apoios/bolsas/docs/RegulamentoBolsasFCT2019.pdf> and <https://dre.pt/application/file/a/127230968>.

Workplace: The work will be developed at CeFEMA in Instituto Superior Técnico, under the scientific supervision of Prof. Yasser Omar.

Duration: The research fellowship(s) will have the duration of 12 months. It's expected to begin in October 2023, until December 2023 paid by the QuantHEP project and from January to March 2024, paid by the HQCC project and may be eventually renewed.

Monthly maintenance allowance: According to the values for Research Fellowships awarded by FCT in Portugal (<http://www.fct.pt/apoios/bolsas/valores>), the amount of the monthly maintenance allowance is 1 741 €, being the payment method an option of the Fellow by Wire Transfer/Check.

Selection methods: The selection methods will be the following: academic record, scientific record, statement of research interests, with the respective weight of 35 %, 35 % and 30%.

Composition of the selection Jury: Professor Yasser Omar, Professor João Seixas, Doutor Marco Pezzutto.

Announcement/ notification of the results: The final evaluation results will be communicated to all applicants by email.

Deadlines and procedures of complaint and appeal. A complaint may be lodged from the final decision within 15 working days, or an appeal to the Executive Board of IST-ID within 30 working days, both counted from the respective notification

Application deadline and formalization: The call is open from 11 September until 22 September, 2023.

It is mandatory to formalize applications with the submission of the following documents: i) B1 Form – Fellowship application (<https://ist-id.pt/concursos/bolsas/>); ii) *Curriculum Vitae*; iii) academic degree certificate; iv) motivation letter; v) declaration on honour that the applicant does not exceed with this contract an accumulated period of three years in this type of fellowship, continuously or with interruptions, within the technological and scientific system, and that the research work that led to the PhD degree was carried out in a different entity from the host institution of the fellowship.

Applications must be submitted to the email: applications@phys-info.org