

## Post-Doctoral Research Fellowships

Applications are open for 1 Post-Doctoral Research Fellowship(s), within the framework of project/R&D institution (1801P.01325.1.01) XPACE - 101045172 - IST-ID- 930901, financed by national funds through FCT/MCTES (PIDDAC), under the following conditions:

**Scientific Area:** Plasma Physics and Nuclear Fusion

**Admission Requirements:**

- 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 renewals, 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** The fellowship holders will perform numerical simulations using particle-in-cell codes to study relativistic plasma instabilities and collisionless shocks of relevance to both astrophysical and laboratory systems. The goal is to identify the dominant processes that control magnetic field amplification in relativistic astrophysical systems and learn also in which conditions it might be possible to study this process in the laboratory. This work is aligned with the focus of the ERC project XPACE in studying relativistic collisionless shock waves.

**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; IST-ID Regulation of Scientific Research Fellowships, available on <https://ist-id.pt/recursos/documentos/recursos-humanos/bolseiros/#1690453819726-6707f7f2-ce04>

**Workplace:** The work will be developed at *Group of Astrophysical Plasmas (GAP)* of IPFN at Instituto Superior Técnico, Campus da Alameda, under the scientific supervision of Frederico Fiúza.

**Duration:** The research fellowship(s) will have the duration of 12 months. It's expected to begin in March 2026 and may be eventually renewed up to the maximum of 36 months, including the duration of the initial contract.

**Monthly maintenance allowance:** the amount of the monthly maintenance allowance is € 1851,00 being the payment method an option of the Fellow by Wire Transfer/Check.

**Selection methods:** The selection methods will be the following: *Curriculum evaluation*, with the respective weight of 100%.

**Composition of the selection Jury:** Frederico Fiúza, Marta Fajardo, Jorge Vieira.

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

**Deadlines and procedures of complaint and appeal.** After notification of the provisional list of evaluation results, candidates have a period of 10 working days to, if they wish, make a statement at a preliminary hearing of interested parties, in accordance with Articles 121 et seq. of the Code of Administrative Procedure. The final decision will be

made after analyzing the statements presented at the preliminary hearing of interested parties. The final decision may be appealed to the competition jury or to the President of IST-ID within 15 working days of notification

**Application deadline and formalization:** The call is open from February 6 until February 12, 2026.

It is mandatory to formalize applications with the submission of the following documents: i) B1 Form – Fellowship application (<https://ist-id.pt/recursos-humanos/bolseiros/#documentos-relacionados>); 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: [bolsas@drh.tecnico.ulisboa.pt](mailto:bolsas@drh.tecnico.ulisboa.pt)