

(BL53/2026-IST-ID)

Research Studentships (for students of a course that does not award an academic degree)

Applications are open for 1 (one) Research Studentship(s) (for students of a course that does not award an academic degree), within the framework of Instituto de Plasmas e Fusão Nuclear, project estratégico 1801P.01462.1.02.02 UID/50010/2023, with the financial support of FCT/MCTES through national funds, under the following conditions:

Scientific Area: Plasma Physics and Nuclear Fusion

Admission Requirements:

a) to hold a bachelor or master degree and be enrolled at a course that does not award an academic degree and it is integrated in the educational project of a higher education institution, performed in association or cooperation with one or several R&D units;

b) not to exceed with this contract, including the possible renovations, an accumulated period of two years in this type of studentship, continuously or with interruptions.

Workplan: Development of numerical tools for the study of low-temperature plasmas, namely:

- consolidation of the LisbOn Kinetics Global Model open-source code (LoKI-GM, <https://nprime.tecnico.ulisboa.pt/loki/>)
- contribution to the ongoing development of the high-performance data storage library LXCat 3.0 (<https://github.com/LXCat-project/LXCat>), promoting the coupling of LoKI with this database
- development of machine learning tools associated with LoKI-GM for sensitivity analysis

The successful achievement of these objectives is essential to ensure the continuity of the studentship holder's advanced training.

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://dre.pt/application/file/a/127230968>.

Workplace: The work will be developed at Instituto de Plasmas e Fusão Nuclear of Instituto Superior Técnico, under the scientific supervision of Prof. Luís Lemos Alves

Duration: The research fellowship(s) will have the duration of 7 months. It's expected to begin in June 2026, and may be eventually renewed up to the maximum of 10 months, including the duration of the initial contract.

Monthly maintenance allowance: According to the values for Research Fellowships awarded by FCT in Portugal (<https://www.fct.pt/fct-atualizou-o-valor-das-bolsas-para-2025/>), the amount of the monthly maintenance allowance is €1309.64, being the payment method an option of the Fellow by Wire Transfer/Check.

Selection methods: The selection methods will be scored on a scale of 0-100 and will be as follows:

Curriculum evaluation (80% weighting), motivation letter (20%), valuing (i) programming skills; (ii) knowledge of MATLAB, Python, JSON; (iii) knowledge of the LisbOn Kinetics Global Model.

If the jury deems it necessary, an individual interview will be held (remote participation is allowed), which will include a scientific presentation. In this case, the weighting of the selection methods will be as follows: curriculum evaluation (40%), motivation letter (10%), interview (50%).

Composition of the selection Jury: Professor Luís Paulo da Mota Capitão Lemos Alves; Professor Vasco António Dinis Leitão Guerra; Doctor Nuno Rombert Pinhão

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



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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 March 18 until March 31, 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;

Applications must be submitted to the email: carmo@ipfn.tecnico.ulisboa.pt, with subject **BNCG_N-PRiME**



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