

(BL58/2026-IST-ID)

Research Studentships (Master or Integrated Master students)

Applications are open for 2 Research Studentship(s), within the framework of project/R&D institution (Models4Invasion/CEMAT), (2022.03060.PTDC), financed by national funds through FCT, under the following conditions:

Scientific Area: Applied Mathematics

Admission Requirements: *To be enrolled at an integrated master or a master.*

Specific requirements:

- The candidate **must be enrolled in a Master's degree** in Statistics, Biostatistics, Data Science, Mathematics, Computer Science, or a related field
- The candidate must have excellent verbal and written English communication skills
- He/she must have proven experience in statistical analysis, applied mathematics and probability, and data science, preferably applied to biological models (courses, reports, articles, projects)
- He/she must have strong proficiency in Python and/or R for data analysis and other software for statistical and mathematical modeling
- He/she must have strong communication and collaboration skills, especially in a multidisciplinary team environment
- Previous modeling work in biology or biomedicine is a plus.

Workplan: The candidate(s) will have experience in mathematical modeling and programming for nonlinear Ordinary and Partial Differential Equations. He/she will study dynamics and principles of the multi-species coexistence encoded in the replicator equation. The focus will be on mathematical analysis and simulations for understanding the quality of their dynamics. The candidate(s) may also be required to apply data fitting algorithms/machine learning algorithms to link models to biological data from the literature. The project integrates elements from dynamical systems, graph theory, linear algebra, optimization, calculus and probability and statistics.

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 CEMAT of Instituto Superior Técnico, under the scientific supervision of Dr. Erida Gjini

Duration: The research fellowship(s) will have the duration of 3 months, with no foreseen extension. The starting date can be in April or May 2026.

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 €1040,98, being the payment method an option of the Fellow by Wire Transfer/Check.

Selection methods: The selection methods will be the following: Curriculum (50%) and academic background compatibility evaluation (40%), motivation letter (10%). Shortlisted candidates may be invited for an interview.

Composition of the selection Jury: Dr. Erida Gjini, Dr. Sten Madec, Dr. Thi Minh Thao Le

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, where applicable;
- iv) proof of enrollment at an academic degree course;
- v) motivation letter.
- vi) transcript of grades and relevant courses/trainings;
- vii) any example of written scientific work by the candidate (optional)

Applications must be submitted to the email: erida.gjini@tecnico.ulisboa.pt



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