

Infinity²

Program Outline

The Infinity² postgraduate program offers high-level modules taught by researchers and teacher-researchers involved in major experiments in subatomic physics, high-energy physics and astrophysics.

This program trains students in modern data processing methods (big data, data mining, machine learning, Bayesian statistics, AI, etc.), which are becoming essential to meet the major challenges posed by the avalanche of rich and complex data produced by the latest generation of instruments and observatories.

Admission Requirements

Candidates must:

- › Hold a Bachelor's degree or equivalent qualification (180ECTS)

- › Have completed their previous studies and obtained their admission qualification in the following fields : Subatomic Physics, High Energy Physics and Astrophysics

Academic Cooperation

Infinity² benefits from a unique collaboration including academic partners and laboratories: the Laboratoire de Physique des 2 Infini (LP2i), the Laboratoire d'Astrophysique de Bordeaux (LAB), Bordeaux INP, Institut d'Optique Graduate School Nouvelle-Aquitaine, etc. Infinity² is also collaborating with several international institutions and is further developing its international network.

Program duration

Master: 2 years (120 ECTS)
PhD: 3 years

Language Requirements

All courses are in French. A good level of English (B2) is however desirable, as some external lecturers and summer schools/ internships will be in English.

Fees and scholarships

- › Annual university registration fees for all selected candidates are calculated in accordance with the regulations of the University of Bordeaux (approximately 400€).
- › Scholarships may be awarded to selected candidates on request and under selection of the executive committee.



Strengths

- › Strong connection to a network of multidisciplinary researchers and experts: physicists, astronomers, astrophysicists, chemists, engineers, etc.
- › Discovery of data classification and partitioning methods
- › Acquire the theoretical foundations and practical methods of data analysis and modelling
- › Learn the fundamentals of supervised learning using neural networks, with practical applications to real-life problems
- › Programming in Python, R and Matlab
- › Seminars, summer and winter schools, mentoring, individualised courses

And after?

Participants of the Infinity² Graduate Program are invited to pursue a doctoral degree in the physical and engineering sciences. On completion of the course, students will also have the opportunity to enter the matter and radiation sciences sectors within private organisations as researchers, R&D engineers, project managers, production engineers, project managers, etc.

How to apply?

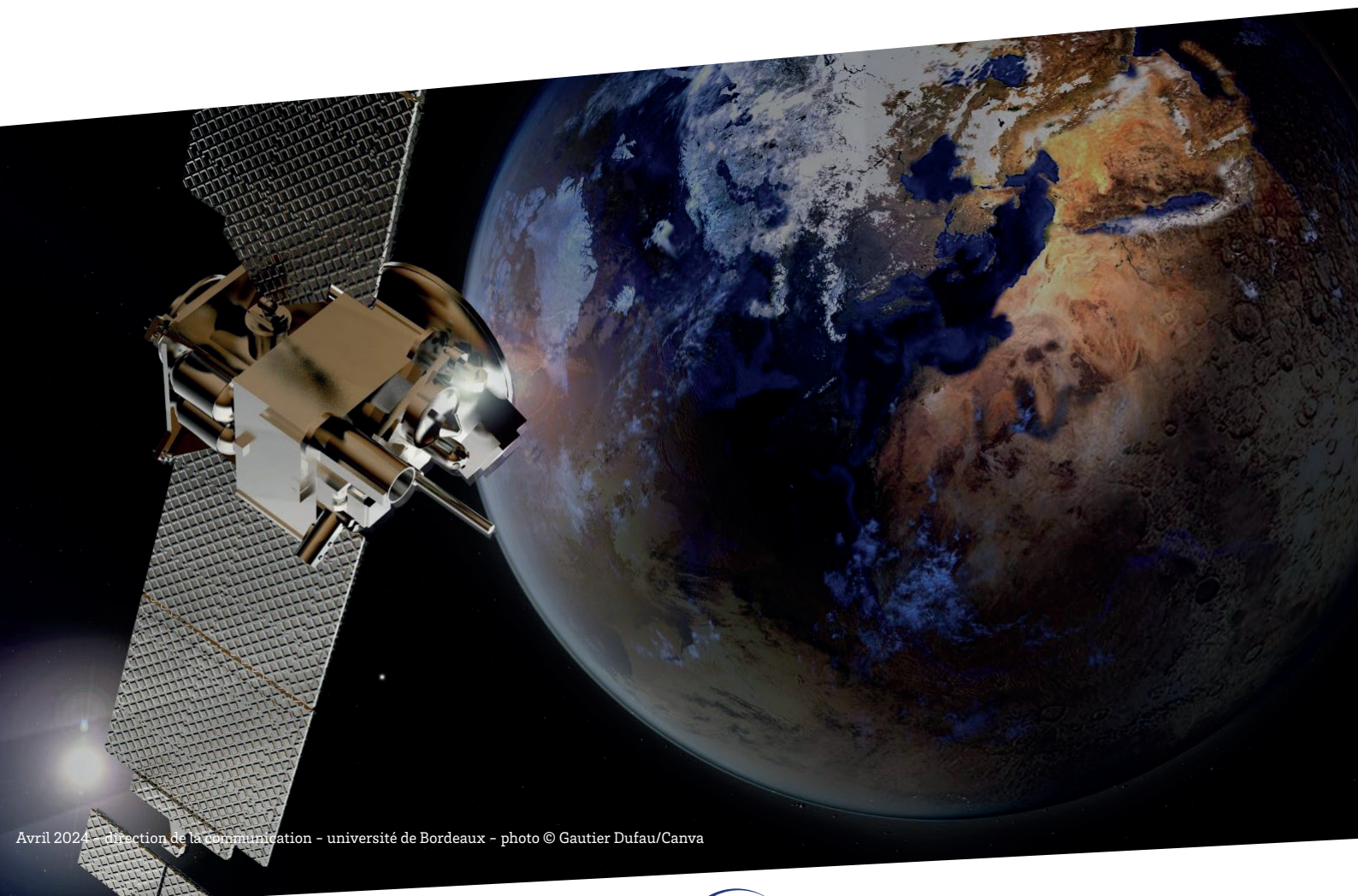
All the practical information you need to apply is available on the program's dedicated web page.

Website



Contact

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