

Work for your thesis
in a competitive
scientific
environment !

L'Université est une chance.
Saisissons-la.



APPLICATION

Candidates must hold a Masters degree or equivalent. They should first obtain the agreement of the proposed thesis director and the director of the Laboratory, and then submit an application to the director of the School. In order to be accepted to enrol for a doctorate, the candidate must have funding for a period of three years. Lists of proposed thesis topics and application forms for Education Ministry scholarships are available on the School's web site.

FOREIGN CANDIDATES

The proposed thesis director is the principal contact for organising the arrival of foreign doctoral students in Bordeaux. Further information is available at the web site of the University's International Affairs Office: www.u-bordeaux1.fr/dai/.

CONTACTS

Director: Éric Sopena
direction-edmi@math.u-bordeaux1.fr

Deputy director, Head of doctoral studies in mathematics: Christophe Bavard
Christophe.Bavard@math.u-bordeaux1.fr

Head of doctoral studies in computer science:
Mohamed Mosbah
Mohamed.Mosbah@labri.fr

Secretariat: Christine Parison
ecole@math.u-bordeaux1.fr

Web:
www.math.u-bordeaux1.fr/Ecole_Doctorale/

- Doctoral school of mathematics and computer science

UNIVERSITY OF BORDEAUX
Associated institutions: CEA-CESTA, ENSEIRB, INRIA

THREE FIELDS FOR DOCTORAL THESES:

- > pure mathematics
- > applied mathematics and scientific computation
- > computer science



check Epsilon0.lt.
check Epsilon0.omega.

Work for your thesis in a competitive
scientific environment !



- THE SCHOOL

The School has around 180 doctoral students working in one of the three fields proposed: pure mathematics, applied mathematics and scientific computation, computer science. It is supported by two laboratories (the IMB, Institut de Mathématiques de Bordeaux (Bordeaux Mathematics Institute) UMR 5251 - and the LaBRI, Laboratoire Bordelais de Recherche en Informatique (Bordeaux Laboratory for research in Computer Science) UMR 5800) and three associated institutions (the CEA-CESTA, Commissariat à l'Énergie Atomique Centre d'Études Scientifiques et Techniques d'Aquitaine (Atomic Energy Commission, Aquitaine Centre for Scientific and Technical Studies) – the ENSEIRB, École Nationale Supérieure d'Électronique, Informatique et Radiocommunications de Bordeaux (Bordeaux National Engineering School in Electronics, Computing and Radiocommunications) - the INRIA, Institut National de Recherche en Informatique et Automatique (National Institute for Research in Computing and Automation)), making a total of more than 300 full time research or research/teaching staff.

- TRAINING OFFERED

In the course of their thesis, doctoral students follow about a hundred hours of training devoted to scientific awareness or to assistance with professional career openings. This training is aimed at giving the students the best opportunity to launch a successful career.

- EDUCATIONAL OR INDUSTRIAL MONITORSHIP

In parallel with their thesis work, doctoral students have a possibility of undertaking a monitorship of initiation into tertiary education (64 hours of teaching per year) or industry (a part time R&D consultancy mission).

- PROFESSIONAL RECRUITMENT OPPORTUNITIES

The principal recruitment areas for the School's PhDs are in the academic and industrial sectors (researcher, university teaching/research, R&D doctor/engineer) both in France and abroad. The proportion of PhDs going into industry is about 45 %.

- FUNDING

Every doctoral student in the school has to have funding from some source (scholarship from the Education Ministry, funding from the CNRS, INRIA, CEA or a Region, research contract funding, CIFRE agreement with a company, etc.) For more information contact the intended thesis director or consult the School's web site.

- INTERNATIONAL

The School has a policy of open recruitment, nationally and internationally (a third of doctoral students were awarded their Masters degree at universities other than Bordeaux and a quarter are not French nationals). The School also supports the establishment of co-direction of theses and medium term research visits abroad.

Research themes

IMB

www.math.u-bordeaux1.fr/math

Number theory and algorithmics

Algebraic number theory - Analytic number theory, diophantine equations and diophantine approximation - Computational number theory - Arithmetic and algebraic geometry - Lattices, codes and cryptography.

Analysis and Geometry

Complex analysis - Operator theory, harmonic analysis - Functional analysis and spectral theory - Modélisation, signal - Differential geometry - Analytic and algebraic geometry - Dynamical systems, geometric function theory.

Applied Mathematics

Compressible fluid mechanics, kinetic methods and hyperbolic problems - Operational research - Modelling, computations, control and stability - Modelling, mathematical analysis and numerical simulations for population dynamics - Stochastic processes and statistics - General relativity, spectral analysis and scattering.

LaBRI

www.labri.fr

Combinatorics and Algorithmics

Enumerative and algebraic combinatorics - Graphs and applications - Distributed Algorithms.

Formal Methods

Modelling and verification - Logics, graphs and languages - Computational linguistics.

Image and Sound

Image Structuring and Analysis - 3D modelling, visualization and interaction - Sound and music modelling - Video Analysis and Indexing.

Algorithms and Runtime Systems for High Performance Computing

Algorithms and methods for grand challenge applications - High performance runtime systems for parallel architectures.

Languages, Systems and Networks

QoS and security of the next generation networks (NN) - Modelling and testing of complex systems - Distributed systems and objects - Technologies of languages for communication services.

Models and Algorithms for Bio-informatics and Information Visualization

Algorithms dedicated to the analysis of biological structures - Comparative genomics, modelling, analysis of biological Data - Visualization of massive datasets.