Topics in probability theory

Lecturer
Yves-Caoimhin SWAN (Coordinator)

Course mnemonic
STAT-F421

ECTS credits
5 credits

Language(s) of instruction
English

Course period
Second term

Campus
Plaine

Course content

The content changes regularly, according to the students' profiles and interests. This year I plan to cover the following topics:

- Simulation of uni and multi variate probability distributions
- Bayesian probability
- MCMC (Gibbs sampler, ...)

Objectives (and/or specific learning outcomes)

After this course, a student will be able to

- get familiar with a non-standard topic in probability
- appreciate certain aspects of modern research in probability

Teaching method and learning activities

Lectures (theory)

Contribution to the teaching profile

- Learning some advanced notions in some fields of probability and statistics

References, bibliography and recommended reading

A selection of recent research papers, to be fixed during the course

Course notes

Université virtuelle

Other information

Place(s) of teaching

Plaine

Contact(s)

Yvik Swan
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Evaluation method(s)

Oral examination

Evaluation method(s) (additional information)

The exam is an oral test. It might also consist in an oral presentation.
It is organized in June (and, if needed, in August/September).

Main language(s) of evaluation

English

Other language(s) of evaluation, if applicable

French

Programmes

Programmes proposing this course at the faculty of Sciences

MA-MATH | Master in Mathematics | finalité Research/unit 1 and finalité Research/unit 2, MA-STAT | Master in Statistics : General | finalité Research General/unit 1 and MS-BGDA | Specialized Master in data science, Big data | unit U

Programmes proposing this course at the Solvay Brussels School of Economics and Management

MA-ECOE | Master in Economics : Econometrics | finalité Research in Economics and statistics/unit 2 and MS-BGDA | Specialized Master in data science, Big data | unit U

Programmes proposing this course at the Brussels School of Engineering

MS-BGDA | Specialized Master in data science, Big data | unit U