STAT-F418 | 2024-2025

## Topics in nonparametric smoothing

#### Lecturer

Maarten JANSEN (Coordinator)

Course mnemonic STAT-F418

**ECTS credits** 5 credits

Language(s) of instruction English

**Course period** First term

Campus Plaine

## Course content

Study of at least one of the following topics: (1) spline smoothing (2) kernel or multiscale local polynomial estimation (3) wavelet or multiscale smoothing.

# Objectives (and/or specific learning outcomes)

The course is about nonparametric regression or density estimation (nonparametric should not be understood as distribution free here, but rather refers to a nonspecified or observation dependent model for the covariate-response relationship)

## Teaching method and learning activities

Literature study with focus on one or several aspects (theoretic, computational, application) and one or several smoothing techniques

Reproduction of research results (proofs and/or simulation studies)

### Contribution to the teaching profile

Nonparametric statistics

## Other information

#### Place(s) of teaching

Plaine

#### Contact(s)

Maarten Jansen, see https://maarten.jansen.web.ulb.be/ index.html for contact information

## Evaluation method(s)

Other

#### Evaluation method(s) (additional information)

Written report and regular meetings/intermediate discussions of progress

## Main language(s) of evaluation

English

## Programmes

# Programmes proposing this course at the faculty of Sciences

MA-STAT | Master in Statistics : General | finalité Research General/ unit 1

#### 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