

Doctoral Course (Doctoral Schools ABIES and GAIA)



Environmental Genetics

Objectives of the doctoral course

The process of adaptation is of fundamental importance in shaping the genome of individuals. The modern genotyping technologies and new statistical methods are giving the ability to identify individual regions of the genome that are likely to be important in adaptive process.

This doctoral course falls within the general scope of describing the most innovative methods for detection of adaptation signals, related with environmental variables.

It will alternate lectures and tutorial classes. At the end of the training, every PhD student will be able to undertake this kind of studies using a wide range of innovative methods.

This course is primarily intended for biologists/ecologists PhD students of the doctoral schools ABIES and GAIA, but researchers may also be accepted. Prerequisites are: basic knowledge in population genetics and statistics, and R software.

It will be delivered in English.

It will take place from May 23 to 27, and will be hosted by AgroParisTech (16, rue Claude Bernard, 75005 Paris)

Addressed Topics:

- *Genetic structuring of a set of individuals and/or populations genotyped with molecular markers;*
- *Interpretation of the genetic structuring by environmental variables;*
- *Detection of genomic footprints of selection related or not with environmental variables;*
- *Functional characterization of candidate genes.*