

# Postdoctoral position in Statistics in Orsay

**Topics :** unsupervised learning, clustering, ranking, segmentation, active learning

**Location :** Laboratoire de Mathématiques d'Orsay (Université Paris-Saclay et CNRS).

**Duration :** 12 months

**Contact :** elisabeth.gassiat@universite-paris-saclay.fr

## Context and aims

This position fits within the bilateral research program ASCAI between France and Germany funded by ANR and DFG. This project brings together researchers in Statistics and Computer Science from Montpellier, Paris-Saclay, Potsdam and Munich.

The general aim of this project is to provide theoretical grounds for a collection of unsupervised learning that includes seriation, ranking, time series segmentation, and hierarchical clustering. In particular, we plan to characterize the optimal (in the minimax sense) learning rates for a class of related latent models. Moreover, many modern unsupervised learning applications are essentially of an online nature - and sometimes decisions have to be made sequentially. For instance, consider a recommender systems that sequentially recommends items to users. In the context where sequential, active recommendations are made, it is important to leverage the underlying latent structure of the individuals.

We seek a motivated researcher with a strong mathematical background. Depending on his/her interests, the candidate will work on any topic fitting within ASCAI.

## Young researchers skills required:

- a PhD in Statistics or Machine Learning
- a strong mathematical background and record

**Gross salary:** The salary is determined by the collective bargaining agreement for public employees in France (INM), it is a full time position.

**Starting date:** No later than September 2023.

**Supervision:** Members of the project ASCAI in Orsay: Gilles Blanchard, Elisabeth Gassiat, Christophe Giraud, Zacharie Naulet. Depending on the interests of the candidate, close collaborations are possible with the partners of ASCAI project in TU Munich, Montpellier, or Potsdam.

**Requested documents for application :** A resume, a cover letter, and a list of two people who may be contacted for reference letters should be sent to Elisabeth Gassiat (elisabeth.gassiat@universite-paris-saclay.fr).