# Séminaires

**Dimanche 22 Octobre 2017**

**Salle DPGR**

## Network clustering with variable neighborhood search

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### Abstract

In this talk, some clustering problems at the network are defined. They use different objective or quality functions. The possible solution methods for solving them are discussed as well as possible applications in data analysis, telecommunication, social sciences and medicine. Since most of such problems are NP-hard, the attention will be paid on heuristic methods, and more particular, on Variable neighborhood search (VNS) based heuristics. Basic steps of VNS metaheuristic will be presented. Comparative analysis among different clustering quality functions, as well as among different solution methods will be given as well.

## Functional data classification

**Pr SOPHIE DABO NIANG**
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### Abstract

We present two approaches for clustering spatial functional data. The first one is the model-based clustering that uses the concept of density for functional random variables. The second one is the hierarchical clustering based on univariate statistics for functional data such as the functional mode or the functional mean. These two approaches take into account the spatial features of the data: two observations that are spatially close share a common distribution of the associated random variables. The two methodologies are illustrated by an application to air quality data.

### Programme de la journée

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| 9H00 | - 10H30 | : | Présentation du Pr N. Mladenovic |
| 10H30 | - 12H00 | : | Présentation du Pr S. Dabo-Niang |
| 12H00 | - 13H00 | : | Pause Déjeuner |
| 13H00 | - 15H00 | : | Discussion, proposition de sujets et problèmes ouverts |