Séminaire de Probabilités et Statistique

Mardi 19 Novembre à 14h00
Laboratoire Dieudonné
Salle de conférence - LJAD

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Gaussian-Based Visualization of Gaussian and Non-Gaussian Model-Based Clustering
Joint work with Matthieu Marbac and Vincent Vandewalle.

A generic method is introduced to visualize in a "Gaussian-like way", and onto $\mathbb{R}^d$, results of Gaussian or non-Gaussian model-based clustering. The key point is to explicitly force a spherical Gaussian mixture visualization to inherit from the within cluster overlap which is present in the initial clustering mixture. The result is a particularly user-friendly draw of the clusters, allowing any practitioner to have a through overview of the potentially complex clustering result. An entropic measure allows to inform of the quality of the drawn overlap, in comparison to the true one in the initial space. The proposed method is illustrated on four real data sets of different types (categorical, mixed, functional and network) and is implemented on the r package ClusVis.