

Normalized Latent Measure Models

A seminar by Jim Griffin

University College London (UCL)

Tuesday 04 Nov 2025 | 14:30-15:30

Room BENVENUTI

Department of Statistical Sciences

Normalized Latent Measure Models (NLMMs) are a framework for modelling and comparing probability distributions using mixtures of nonparametric distributions. Although the methods are generic, we are particularly focussed on modelling similar distributions. For example, to model a large collection of probability distributions (such as areal income distributions) or the effects of covariates on a probability distribution (the effect of wind direction and speed on energy generation). The framework allows us to understand the heterogeneity in the distributions and attribute the variation to spatial factors or other covariates. As well as introducing the models, I will discuss how identifiability, variable selection and overfitting can be addressed within a Bayesian framework to provide interpretable inferential methods. I will illustrate their use in a range of applications.



UNIVERSITÀ
DEGLI STUDI
DI PADOVA

