

DSS Statistics Seminar

March 4, 2022, 12:00

<https://uniroma1.zoom.us/j/86881977368?pwd=SWRFcVFjMDZTa0lXZk05TE1zNm5adz09>

Passcode: 432940

Multimodal regression with circular data

Rosa M. Crujeiras

*Centre for Mathematical Research and Technology Transfer of Galicia – CITMaga
University of Santiago de Compostela - Spain*

There is a diverse range of practical situations where one may encounter random variables which are not defined on Euclidean spaces, as it is the case for circular data. Circular measurements may be accompanied by other observations, either defined on the unit circumference or on the real line, and in such cases it may be of interest to model the relationship between the variables from a regression perspective. It is not infrequent that parametric models fail to capture the underlying model given their lack of flexibility, but it may also happen that the usual paradigm of (classical) mean regression. We will present in this talk some recent advances in nonparametric multimodal regression, showing an adaptation of the mean-shift algorithm for regression scenarios involving circular response and/or covariate. Real data illustrations will be also presented. This is a joint work with María Alonso-Pena.



SAPIENZA
UNIVERSITÀ DI ROMA