

Séminaire de Probabilités et Statistiques

Mardi 10 Novembre à 14h
Salle de Conférences

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*Regression imputation in the functional linear model
with missing values in the response.*

We are interested in functional linear regression when some observations of the real response are missing, while the functional covariate is completely observed. A regression imputation method of missing data is presented, using functional principal component regression to estimate the functional coefficient of the model. We study the asymptotic behaviour of the predicted error when the missing data is replaced by the regression imputed value, in a "missing at random" framework. The practical behaviour of the method is also studied on simulated data sets. We conclude this work with an application to the prediction of an index of pollution, missing in some cities of France, using a temperature curve as functional covariate.