

# Séminaire de Probabilités et Statistiques

**Mardi 06 février à 14h00**

Laboratoire Dieudonné

Salle de Conférences

**Alexandra Carpentier**

(Universität Magdeburg)

*Sparsity testing in the linear regression model*

We consider the problem of sparsity testing in the linear regression model, i.e. the problem of testing whether a given parameter of interest is of sparsity  $k_0$  or of larger sparsity  $k_1$ . We consider both the case where the variance is known and when not, and under Gaussian design (both i.i.d. and not). We provide as a side result an estimator which is computationally non-extensive and which has nice properties, among other that it has the right support in the case where the smallest coefficient is large enough.

(based on a joint work with Nicolas Verzelen)