

## **Concentration for Coulomb gases and Coulomb transport inequalities**

Mylène Maida, Université de Lille

We study the non-asymptotic behavior of Coulomb gases in dimension two and more. We obtain concentration of measure inequalities for the empirical distribution of such gases around their equilibrium measure. Our approach is remarkably simple and relies on new inequalities between probability metrics, including Coulomb transport inequalities which will be presented in the talk. This is based on a joint work with Djalil Chafaï (Dauphine) and Adrien Hardy (Lille).