

Mathematisches Oberseminar *PDG und Spektraltheorie* (WiSe 2013/14).

Date: 23.01.2014.

Time and place: 14:15 in B 134.

Speaker: Maria J. Esteban (CEREMADE Paris-Dauphine (Paris 16)).

Titel: *Spectral estimates on spheres and compact manifolds.*

Abstract:

In this talk I will present recent work with Jean Dolbeault, Ari Laptev and Michael Loss about optimal estimates of the principal eigenvalue of Schrödinger operators on spheres, or in general, on general compact manifolds, based on the best constants for some functional inequalities. These estimates show that for compact manifolds both Keller and Lieb-Thirring-like estimates do not hold true with the usual constants and exponents as in the Euclidian space.

Thomas Østergaard Sørensen