

Spectral estimates on manifolds

MARIA ESTEBAN

Universit Paris-Dauphine, Paris, France

email: esteban@ceremade.dauphine.fr

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