

L^p Carleman estimates for elliptic boundary value problems.

mercredi 21 juin 2023 11:00 (30 minutes)

In the talk, we shall prove global L^p Carleman estimates for the Laplace operator in dimension $d \geq 3$. Our strategy relies on a precise Carleman estimates in strips, and a suitable gluing of local estimates obtained through a change of variables. The delicate point and most of the work thus consists in proving Carleman estimates in the strip with a linear weight function for a second order operator with coefficients depending linearly on the normal variable. This is done by constructing an explicit parametrix for the conjugate operator, which is estimated through the use of Stein Tomas restriction theorems.

This is a joint work with Belhassen Dehman and Sylvain Ervedoza.

Orateur: THABOUTI, Lotfi (Université de Bordeaux et Université de Tunis El Manar)