

SEMINAIRE D'ANALYSE

➤ **VENDREDI 27 Septembre 2013 à 15h15 - salle GCB331**

Monsieur **LOC NGUYEN** (EPFL, Suisse) donnera une conférence sur le thème:

«An exact reconstruction formula in Quantitative thermo-acoustic imaging»

Given data sets of electromagnetic data, we first establish an exact formula for the absorption coefficient, which involves derivatives of the data up to the third order. Because of such derivatives, this formula is unstable in the sense that small measurement noise may cause large errors. Hence, with the presence of noise, the obtained formula provides an initial guess for the true absorption coefficient. We next correct the errors by deriving a reconstruction formula based on the least square solution of an optimal control problem and show that this optimization step reduces the errors occurring.

Lausanne, le 23 septembre 2013
BD/VL

Les séminaires qui ont lieu à la Section de Mathématiques sont annoncés sur Internet
<http://memento.epfl.ch/math/>