ÉCOLE POLYTECHNIQUE
FÉDÉRALE DE LAUSANNE

B. Buffoni – B. Dacorogna - H.M Nguyên - Section Mathématiques

SEMINAIRE D'ANALYSE

- ***VENDREDI 28 FEVRIER 2014 à 15h15 - salle MA A331***

Professeur ***THOMAS BOULENGER*** *(*Université de Bâle) donnera une conférence sur le thème:

«Stability to metric and nonlinear perturbations of NLS pseudo-conformal blow up solutions»

Abstract:

The present work aims at extending some blow up results for the 2-dimensional L^2-critical focusing NLS : $i\,\partial_t u + \Delta_g\, u + k(x)\,|u|^2\,u = 0$. We prove a stability result for the pseudo-conformal blow up regime, with respect to some geometrical perturbations, embodied by the metric g, and some nonlinear perturbations, embodied by the potential k. We use modulation techniques to treat perturbatively the additional terms, in the very same spirit as in a previous work from P. Raphal and J. Szeftel (http://arxiv.org/abs/1001.1627, 2010). During the talk I will present some of the known result, the strategy of the proof along with a quick overview of the modulation method adapted to the problem.

Lausanne, le 24 février 2014
BD/HMN/MM

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