ÉCOLE POLYTECHNIQUE
FÉDÉRALE DE LAUSANNE

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

SEMINAIRE D'ANALYSE

- ***VENDREDI 07 NOVEMBRE 2014 à 15h15 - salle MA A331***

Professeur ***NIKOLAY TZVETKOV*** *(*Université de Cergy-Pontoise, France) donnera une conférence sur le thème:

«Invariant measures and long time behavior for the Benjamin-Ono equation »

The KdV and the Benjamin-Ono equations are basic models, derived from the water waves equations for the propagation of long, small amplitude one dimensional waves. The solutions of the KdV equations, posed on the torus are known to be almost periodic in time. The long time behavior of the Benjamin-Ono equation, posed on the torus is much less understood. In this talk, we will present some progress on this problem. Namely, we shall construct an infinite sequence of weighted gaussian measures which are invariant by the flow of the Benjamin-Ono equation. These measures are supported by Sobolev spaces of increasing regularities. The "probabilistic view point" is essential in our analysis. In particular our arguments are less dependent on the particular behavior of each trajectory, compared to previous works on the subject.
The talk is based on a series of works by Yu Deng (Princeton University), Nicola Visciglia (University of Pisa) and the speaker.

Lausanne, le 15 octobre 2014
BD/BB/vl

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