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

SEMINAIRE D'ANALYSE

> ➢ *VENDREDI 11 AVRIL 2014 à 15h15 - salle MA A331*

Dr. Willie Wai Yeung Wong (EPFL, Lausanne) donnera une conférence sur le thème:

«Stability of relativistic expanding bubbles»

Abstract: The Lorentzian constant mean curvature equation describes the relativistic evolution of a membrane subjected to a constant normal force. In this talk, we first classify spherically symmetric solutions, the asymptotic behaviours of which fall under one of (i) collapse (ii) convergence to steady state and (iii) eternal expansion, with precise asymptotic profiles. Next we discuss the stability of the class (iii) solutions under general perturbations. We will see that both the main (analytical) stability mechanism and the main (geometric) obstacle to stability have their roots in the accelerated expansion driven by the constant normal force.

Lausanne, le 7 avril 2014
BD/HMN/MM