



ÉCOLE POLYTECHNIQUE
FÉDÉRALE DE LAUSANNE

***Institut de mathématiques des sciences computationnelles et ingénierie
MATHICSE***

***SEMINAIRE D'ANALYSE
NUMERIQUE***

➤ ***MERCREDI 27 avril 2011 à 16h15 à la salle MA A110***

Prof. Olof RUNBORG (KTH, Sweden) donnera une conférence intitulée:

"A Multiscale Method for the Wave Equation in Heterogeneous Medium "

We consider the wave equation in a medium with a rapidly varying speed of propagation. We construct a multiscale scheme based on the heterogeneous multiscale method, which can compute the correct coarse behavior of wave pulses traveling in the medium, at a computational cost essentially independent of the size of the small scale variations. This is verified by theoretical results and numerical examples. We also consider the case when waves travel over long time in heterogeneous medium, where dispersion effects are introduced which are not captured by standard homogenization.

Lausanne, le 20 avril 2011
Prof. Assyr Abdulle
VL

Les séminaires qui ont lieu à la Section de Mathématiques sont annoncés sur Internet à l'adresse WWW
(<http://memento.epfl.ch/cgi-bin/memento/select?memento=MATHS>)