

Prof. Assyr Abdulle Mathematics Institute of Computational Science and Engineering - MATHICSE

SEMINAR OF NUMERICAL ANALYSIS

> WEDNESDAY 10 DECEMBER 2014 - ROOM ME B3 31 - 16:15

Prof. David Cohen, (Umeå University, Sweden) will present a seminar entitled:

"A fully discrete approximation of the one-dimensional stochastic wave equation"

Abstract:

A fully discrete approximation of one-dimensional nonlinear stochastic wave equations driven by multiplicative noise is presented. A standard finite difference approximation is used in space and a stochastic trigonometric method for the temporal approximation. This explicit time integrator allows for error bounds uniformly in time and space. Moreover, uniform almost sure convergence of the numerical solution is proved.

This is a joint work with Lluís Quer-Sardanyons, Universitat Autònoma de Barcelona.

Lausanne, 25 November 2014/AA/vl