

Title: Stochastic conservation laws

Kenneth Karlsen (Univ. of Oslo, Norway)

Abstract: We will first provide an overview of the existing stability and continuous dependence theory for stochastic conservation laws driven by Wiener processes. We will then present an L^p framework of stochastic entropy solutions for scalar conservation laws perturbed by a Poisson white noise term. The entropy formulation leads to the L^1 -contraction principle, which implies the stability and uniqueness of stochastic entropy solutions.

Based on joint works with

Gui-Qiang Chen (Oxford) & Qian Ding (Evanston)
and Imran H. Biswas & Ananta K. Majee (Bangalore)