Analysis and Applications:
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Speaker: Luis Caffarelli (University of Texas at Austin)

Date/Time: Monday, May 16, 2011 / 1:30-2:30 pm

Talk Title: Rates of convergence for the random
                   homogenization of fully non linear equations

Abstract:

A few years ago, in collaboration with Souganidis and Wang, we showed the existence of homogenization limits for fully non linear equations in random ergodic media as the scale of the media goes to zero. Somewhat implicit in our method, there is a way to extract a rate of convergence of the solutions to the oscillatory equations to the unique solution of the effective equation if the media decorrelates at a given speed. I will discuss the original method and the rates of convergence we obtain from it. This is work in collaboration with Souganidis.