1092-35-173 **Jessica C Lin*** (jessica@math.uchicago.edu). *Stochastic Homogenization for Fully Nonlinear Uniformly Parabolic Equations in Stationary Ergodic Spatio-Temporal Media.*

We present some recent results regarding the stochastic homogenization for fully nonlinear uniformly parabolic equations in stationary ergodic spatio-temporal media. We show that under suitable hypotheses, solutions to such equations homogenize almost surely. In addition, we obtain a logarithmic rate of convergence for this homogenization in measure, assuming that the environment is strongly mixing with a prescribed logarithmic rate. Our approach follows the "obstacle problem method" introduced by Caffarelli, Souganidis, and Wang, and Caffarelli and Souganidis in the stochastic homogenization for fully nonlinear uniformly elliptic equations. We develop a number of new arguments to overcome the difficulties introduced by parabolic structure of the problem. (Received August 08, 2013)