72nd Midwest PDE Seminar

Purdue University, November 16–17, 2013

Charles Smart, *MIT* Sat, Nov 16, 3:00–3:50, MATH 175

Quantitative stochastic homogenization of non-divergence form elliptic equations

Abstract. I will discuss joint work with Scott Armstrong on a new method for studying stochastic homogenization of elliptic equations in nondivergence form. Our main application is an algebraic error estimate in the finite range of dependence case which is new even for linear equations. Our proofs rely on a new geometric quantity which we control using the regularity theory for the Monge-Ampere equation.