
I will present quantitative error estimates in the stochastic homogenization for uniformly elliptic equations in nondivergence form. Under strong independence assumptions on the environment, I will identify the typical (optimal) size of the fluctuations with stretched exponential-type bounds in probability. A key ingredient of our approach is to develop a regularity theory down to microscopic scale which is essentially inherited from the homogenized equation. (Received August 09, 2016)