LDP and the zero viscosity limit for 2D NSE

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Abstract

Using a weak convergence approach, we prove a Large Deviation Principle for the solution of 2D stochastic Navier Stokes equations when the viscosity converges to 0 and the noise intensity is multiplied by the square root of the viscosity. The weak convergence is proven by tightness properties of the distribution of the solution in appropriate functional spaces. This a joint work with Hakima Bessaih.