Edwards-Wilkinson Regime for Kardar-Parisi-Zhang Equation

SPEAKER: Francis Comets, NYU Shanghai and Université Paris Diderot
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(华东师范大学中山北路校区，地理楼264室)

ABSTRACT

We study KPZ equation in dimension 3 or larger driven by a white noise with a small convolution in space. When the noise intensity is small, the corresponding polymer is in weak disorder. Then, we prove that the fluctuations are Gaussian as predicted by the Edwards-Wilkinson model. Joint work with Clement Cosco and Chiranjib Mukherjee.

BIOGRAPHY

Francis Comets is currently Visiting Professor at NYU Shanghai and Professor at Université Paris Diderot. His main research themes are stochastic processes, statistical mechanics, disordered systems, and interacting systems. Some of his recent works are on directed polymer models in random environment (with a particular emphasis on the localization phenomenon) and random interlacements (in relation with cover processes). Other interests are random walks in random environments, self-interacting random walk, growth models, Lyapunov exponents, and large deviations.