Probability Seminar

Title: Large time cumulants for the finite volume KPZ equation, and non-crossing polymers

Speaker: Pierre Le Doussal (ENS, Paris)

Date: Tue 28th April 2026 at 2:00PM

Location: E0.32 (beside Pi restaurant)

Abstract: I will recall the stationary measure of the 1D KPZ equation on an interval. I will then describe the fluctuations of the KPZ height in the large time limit. I will obtain the associated cumulants by two methods, one is by a limit from the ASEP, the other via a direct replica method introduced by Brunet and Derrida. An extension of this second method allows, as I will show, to also obtain large time formulas for the case of two non-crossing polymers on the cylinder.

The first works are in collaboration with G. Barraquand (published), the last one with A. De Luca (in preparation).