

Seminar/Talk

The 1d Stochastic Dirac operator

Laure Dumaz
ENS Paris

Host: Laszlo Erdös & Jan Maas

We will introduce a one-dimensional random Dirac operator which we call 1d Stochastic Dirac operator, which formally writes J \partial_t + V where J = (0, -1 \ 1, 0) and V is a 2*2 white noise matrix. We will see how this operator arises as the scaling limit of 1d Schrdinger operators with decorrelated potential in the small noise limit. Then, we will describe some of its spectral properties. We will show in particular that the eigenfunctions sampled according to the spectral measure have a simple shape, given by the exponential of a two-sided Brownian motion with a constant drift, in connection with the work of Rifking and Virag (2016). This is based on joint works with Cyril Labb (Universit Paris Cit).

Monday, November 30, 2026 04:00pm - 05:00pm
Office Bldg West / Ground floor / Heinzel Seminar Room (I21.EG.101)

This invitation is valid as a ticket for the ISTA Shuttle from and to Heiligenstadt Station. Please find a schedule of the ISTA Shuttle on our webpage: https://ista.ac.at/en/campus/how-to-get-here/ The ISTA Shuttle bus is marked ISTA Shuttle (#142) and has the Institute Logo printed on the side.