Speaker: Dr. Trishen Gunaratnam, University of Geneva

Title: The 2d Sinh-Gordon model on the infinite cylinder

Abstract:

The 2d Sinh-Gordon model is an interacting quantum field theory that is closely related to Liouville conformal field theory. Despite the fact that it is not conformally invariant, it is expected to be "integrable". A concrete manifestation of this is that many physically relevant quantities are expected to have exact formulas. In this talk I will discuss the rigorous probabilistic construction of the Sinh-Gordon model on the infinite cylinder. The construction is based on the analysis of the ground states of the corresponding quantum operators, enabled by the theory of Gaussian multiplicative chaos. This is based on joint work with Colin Guillarmou and Vincent Vargas.