ID de Contribution: **24**   Type: **Non spécifié**

The Brownian loop measure on Riemann surfaces and applications to length spectra

lundi 26 mai 2025 11:30 (1 heure)

The goal of this talk is to showcase how we can use stochastic processes to study the geometry of surfaces. In particular, we use the Brownian loop measure to express the lengths of closed geodesics on a hyperbolic surface and zeta-regularized determinant of the Laplace-Beltrami operator. This gives a tool to study the length spectra of a hyperbolic surface and we obtain a new identity between the length spectrum of a hyperbolic surface and that of the same surface with an arbitrary number of additional cusps. This is a joint work with Yuhao Xue (IHES).

Orateur: WANG, Yilin (IHES)