Contribution ID: **10** Contribution code: **Baverez-1** Type: **Scheduled Talks**

Integration by parts in random conformal geometry and applications

Thursday, May 22, 2025 11:00 AM (1 hour)

The Gaussian free field and Schramm-Loewner evolutions are prominent examples of stochastic processes exhibiting conformal invariance. In these talks, we will discuss the variational formulas of these measures under local conformal transformations, and deduce some integration by parts formulas, which can be neatly phrased as representations of the Virasoro algebra on the L2-space of the measures. This algebraic structure has nice probabilistic consequences, including a characterisation of SLE and a new approach to the conformal welding of quantum surfaces.

Author: Dr BAVEREZ, Guillaume (Aix-Marseille University)

Presenter: Dr BAVEREZ, Guillaume (Aix-Marseille University)