## A flat approach to Weil-Petersson polynomials

mardi 28 février 2023 15:15 (1 heure)

Moduli spaces of hyperbolic surfaces with geodesic boundaries carry a natural symplectic form: the Weil– Petersson (WP) form. Mirzakhani proved that the volumes of these spaces are polynomials in the lengths of the boundaries. Another interpretation of these WP polynomials was proposed by Norbury–Do as volumes of moduli spaces of surfaces with conical singularities. This point of view allowed them to produce a family of relations satisfied by WP polynomials. We will present a new family of relations generalising the one of Norbury–Do. The proof of these relations is based on the following heuristic: the WP symplectic form may be approximated by forms constructed on moduli spaces of flat surfaces with many small singularities.

Orateur: SAUVAGET, Adrien