
Géométrie et dynamique dans les espaces de modules

(Carlos Matheus et Anton Zorich)

Un **mercredi** par mois de **14h à 15h** à l'**Institut Henri Poincaré**.

Séminaire au mois de Mars:

- **09/03/2022 - Simon Barazer** (Université Paris-Saclay)

Titre: *Surgeries on orientable metric ribbon graphs and recursion formula for the volumes of the moduli spaces*

Résumé: Metric ribbon graphs are combinatorial toy models for surfaces with boundaries, they are usefull tools in geometry that could be used to compute the masur veech volumes for instance. Oriented metric ribbon graphs (OMRG) are related to abelian differentials and bipartite maps. The volumes of the moduli spaces of four-valent OMRG with fixed boundary lenghts are piece-wise polynomials. It's possible to study curves on an OMRG, I will introduce a particular class of multi-curves which I call admissibles and I will use them to perform surgeries on the graph. On an OMRG it's possible to extract each vertex by surgeries along a canonical admissible multi-curve. From this result I will show that the volumes satisfy a recursion that correspond to excising a "directed pant's" and is very similar to topological recursion. If it's possible i will speak about the relation with topological recursion, Hurwitz numbers and other structures in some particular cases.

Salle 421

INSTITUT HENRI POINCARÉ
11 Rue Pierre et Marie Curie, 75005 Paris

<http://carlos.matheus.perso.math.cnrs.fr/seminaire/index.html>