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# Géométrie et dynamique dans les espaces de modules

(Carlos Matheus et Anton Zorich)

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

Séminaire au mois de Juin:

- **15/06/2022 - Etienne Bonnafoux** (École Polytechnique)

**Titre:** *Polynomial bound on the rate of mixing of the earthquake flow.*

**Résumé:** The earthquake flow is a tool in hyperbolic geometry helping in various contexts from the Nielsen realization problem to the asymptotic counting of simple closed geodesic. Its ergodic properties remain as yet partially understood. We know that it is mixing with respect to a so-called Mirzakhani measure. But its mixing rate is unknown. In this presentation, I will explain how to bound the rate of mixing of the earthquake flow, it could at most be polynomial with a degree dependent on the topology of the surface. To do so, we exhibit a family of functions pairs which support do not intersect during a control amount of earthquaking. By controlling their Lipschitz norms and integrals using hyperbolic geometry, we exclude high rates of mixing.

**Salle 01**

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