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# Géométrie et dynamique dans les espaces de modules

(Giovanni Forni, Carlos Matheus et Anton Zorich)

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Deux mercredis (**exceptionnellement**) au mois de Juin à l'**Institut Henri Poincaré**.

Premier séminaire au mois de Juin:

- **07/06/2023 - Jialun Li** (École Polytechnique)

de 14h à 15h, salle 05

**Titre:** *On the Hausdorff dimension of the Rauzy gasket via stationary measures*

**Résumé:** I will discuss the proof of the equality between the Hausdorff dimension of the Rauzy gasket and the affinity dimension, based on joint work with Wenyu Pan and Disheng Xu. For the upper bound, we use a similar idea as in Sullivan's proof for conformal case  $SL(2, \mathbb{C})$ . For the lower bound, we prove the supremum of Hausdorff dimensions of stationary measures on the Rauzy gasket is no less than the affinity dimension through the following result. Let  $\nu$  be a probability measure on  $SL(3, \mathbb{R})$  whose support is finite and spans a Zariski dense subgroup. Let  $\mu$  be the associated stationary measure for the action on the real projective plane. Under the exponential separation condition on  $\nu$ , we prove that the Hausdorff dimension of  $\mu$  equals its Lyapunov dimension.

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