Géométrie et dynamique dans les espaces de modules

(Giovanni Forni, Carlos Matheus et Anton Zorich)

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

Séminaire au mois de Novembre:

• 09/11/2022 - Samuel Levièvre (Université Paris-Saclay)

Titre: Diplotori: flat polyhedral tori in three-space.

Résumé: Flat polyhedral tori, known since the late 1970s among mathematicians studying polyhedra, have remained little known among the larger mathematical community, including in other fields with an interest in flat tori. Such tori include families due to Ulrich Brehm in 1978, to Viktor Abramovich Zalgaller in 1997, and more recently to Patricia Tanessi Quintanar Cortés in 2019 and to Florent Tallerie in 2021. The earliest known family of polyhedral flat tori, which we call diplotori, was only studied in depth after forty years. We show it allows to realize any flat torus — in other words, one can fold up any parallelogram into an isometric polyhedral embedding of the corresponding torus in euclidean three-space. We will include anecdotes on the history of this topic and invite audience members to fold their own torus. Joint work with Pierre Arnoux and Alba Málaga.

Salle 05