ID de Contribution: **18** Type: **Non spécifié**

Computation of linear subvarieties in the moduli space of translation surfaces and their multi-scale boundary

vendredi 13 juin 2025 10:25 (50 minutes)

A translation surface is a surface endowed with an atlas whose change of charts are translations. Fundamental examples include the flat tori $\mathbb{C}/\Lambda$. A translation surface comes with a one-parameter family of linear flows, one for each direction in $\mathbb{C}$. Translation surfaces naturally appear when considering billiard flows in rational polygons.

The main focus of the talk are the

$operatornameGL_2^+(\mathbb{R})$-action on the moduli space of translation surfaces and the multi-scale compactification of
$operatornameGL_2^+(\mathbb{R})$-orbit closures.
After presenting the relevance of

$operatornameGL_2^+(\mathbb{R})$-orbit closures in the understanding of linear flows, I will describe how these objects are amenable to efficient computations (in the sense of computer programs).

This talk will be based on joint works with Julian Rüth, Kai Fu and Bradley Zykoski.

Orateur: DELECROIX, Vincent (CNRS - Université de Bordeaux)