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*Geometry and dynamics on infinite type flat surfaces*

Infinite type flat surfaces (i.e. with not finitely generated fundamental group) arise while studying classical dynamical systems such as (irrational) polygonal billiards, baker's map or wind-tree models. They also happen naturally when studying fibered hyperbolic three manifolds or homogeneous holomorphic foliations. In this minicourse we will focus on the main geometrical invariants (Veech groups, types of singularities...) of these objects, explore the dynamics of the geodesic flow (ergodicity, recurrence, invariant measures...) and the echo that finite type translation surfaces have in the infinite type realm.