

ALGEBRA SEMINAR

Profinite genus of fundamental groups of compact flat manifolds with holonomy group of prime order

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Zoom

Abstract.

Let \mathfrak{C} be a family of finitely generated residually finite groups and $\Gamma \in \mathfrak{C}$. The \mathfrak{C} -genus of Γ is the set of isomorphism classes of groups from \mathfrak{C} which have the same profinite completion as the fixed group Γ . In this talk I will present an explicit formula for the \mathfrak{C} -genus of a n -dimensional Bieberbach group with holonomy group of prime order. As a consequence of this result, we will see that if n is a positive integer less than or equal to 21, then a n -dimensional compact flat manifold with holonomy group of prime order is determined among all n -dimensional compact flat manifolds by the profinite completion of its fundamental group.

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