

Seminarium geometrów

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Poniedziałek, 2.12.2024, 14:15 HS

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The geometry of free-by-cyclic groups

Abstract: The class of (finitely generated free)-by-cyclic groups has been extensively studied over the last few decades. The connections between the geometric and algebraic aspects of such groups and the dynamical properties of automorphism groups of finitely generated free groups make their study deep and interesting. The more general class of virtually free-by-cyclic groups, where here the free part is not necessarily finitely generated, is a less understood, but much more vast, class of groups. For example, it includes all surface groups, three-manifold groups of cohomological dimension two and one-relator groups with torsion. Allowing the free group to be infinitely generated presents extra challenges, but nevertheless leads to an interesting theory. In this talk I will discuss some new results on the geometry of free-by-cyclic groups. I will mostly focus on characterising when a free-by-cyclic group is locally quasi-convex and show how such a characterisation also leads to a characterisation of locally quasi-convex one-relator groups.

streaming via ZOOM:

Meeting ID: 967 6507 7409

Meeting password: "GS" (two letters) followed by the Euler characteristic of the closed orientable surface of genus 89.