

Seminarium geometrów

<https://dgt.math.uni.wroc.pl/>

Poniedziałek, 30.03.2026, 14:15 WS

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Flat Torus Theorem in Small Cancellation setting

Abstract: The Flat Torus Theorem is a fundamental result in geometric group theory, asserting that a free abelian subgroup acting properly on a nonpositively curved space preserves an isometrically embedded Euclidean flat. Originally proved for Riemannian manifolds of nonpositive sectional curvature, it has since been extended to CAT(0) spaces, as well as to systolic and quadric complexes.

In this talk, I will discuss recent extensions of this theorem to groups acting on small cancellation complexes, which provide a combinatorial framework for nonpositive curvature. I will explain how different small cancellation conditions – namely $C(6)$, $C(3)–T(6)$ and $C(4)–T(4)$ – lead to distinct geometric phenomena. The focus will be on the main ideas and the geometric intuition behind these results.

Streaming via ZOOM:

Meeting ID: 677 2490 5828

Meeting password: 490803