Seminarium geometrów

www.math.uni.wroc.pl/dgt/

Wtorek, 15.12.2020, 14:15, webminar

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Helly groups and relative hyperbolicity

Abstract: A graph is said to be (*coarse*) *Helly* if any collection of its pairwise intersecting balls has a (coarsely) non-trivial intersection. We say a group is (*coarse*) *Helly* if it acts geometrically on a (coarse) Helly graph. Gromov hyperbolic groups can be shown to be Helly, and so one may expect to find a relationship between Helly and relatively hyperbolic groups: the latter are groups that 'look' hyperbolic outside of a collection of 'parabolic' subgroups. Indeed, it turns out that a relatively hyperbolic group is (coarse) Helly if and only if all of its parabolic subgroups are (coarse) Helly.

In this talk, I will explain why this is true, encountering a few other results on the way: in one direction describing 'geodesics' in a relatively hyperbolic group, in the other showing that quasiconvex subgroups of (coarse) Helly groups are (coarse) Helly. This is a continuation of the previous week's talk and is based on joint work with Damian Osajda.

ZOOM meeting info:

Meeting ID: 945 9956 8132

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