

Seminarium geometrów

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Poniedziałek, 21.11.2022, 16:15 WS

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Splittings of simplicial complexes and of Coxeter groups.

Abstract: In a preparatory (and warm-up) part I of the talk I will explain rather well known ideas of: (1) splitting of a simplicial complex along simplices; (2) splittings of groups as a free product (Grushko decomposition) and along finite subgroups (Dunwoody-Stallings decomposition). I will also explain the idea of VISUAL decompositions of Coxeter groups (i.e. decompositions along special subgroups, with special factors, which can be "visualized" as decompositions of the nerves of the corresponding groups). I will discuss the well known and not difficult facts that Grushko and Dunwoody-Stallings decompositions of Coxeter groups are visual.

In part II of the talk I will discuss a new idea of a similar approach to so called JSJ-decompositions for 1-ended hyperbolic Coxeter groups (i.e. visibility of these splittings, and the explicit form of the factors, and of the whole splitting, in terms of the nerves). A new tool in this part will be the idea of a JSJ-splitting for simplicial complexes (along suspensions of simplices).

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Meeting ID: 967 6507 7409

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