

# Seminarium geometrów

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Wtorek, 08.03.2022, 15:30 HS

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## **Multiorders in amenable group actions.**

Abstract: In the talk I will present the definition of a multiorder on a countable group as well as some of the important properties of multiorders. By a *multiorder* on a countable group  $G$  we mean a probability measure  $\nu$  on a collection of linear orders of type  $\mathbb{Z}$  on  $G$ , invariant under the natural action of  $G$  on such orders. I will present two other ways of representing multiorders on a countable group: in a symbolic form and by so-called *anchored bijections* from  $\mathbb{Z}$  to  $G$ . The latter one has already proved very useful in proving some theorems concerning entropy in amenable group actions. I will show a short proof of a theorem stating that on every countable amenable group, there exists a multiorder of entropy zero. Then I will also discuss an explicit construction of a multiorder based on a dynamical tiling system of  $G$ . The talk will be concluded by few examples of tiling-based multiorders and some applications of multiorders in proving various entropy properties of amenable groups actions.

*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.