

# Seminarium geometrów

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## **Amenability and Computability**

Abstract: We study effective aspects of amenability, the topic initiated by Matteo Cavaleri, Adam R. Day, Tullio Ceccherini-Silberstein and some other researchers. We prove that in the subclass of computable groups (which corresponds to decidability of the Word Problem in the case of infinitely generated groups), non-amenability is equivalent to effective paradoxical decomposability (i.e. all members of the decomposition are computable). We together with Aleksander Ivanov have found an example of a finitely presented group with decidable word problem where the problem if a finite subset generates an amenable subgroup is undecidable.