

ALGEBRAIC SUMS, TREES AND MEAGER SETS IN THE CANTOR SPACE AND IN THE BAIRE SPACE

SZYMON ŻEBERSKI

Results were obtained in cooperation with Ł. Mazurkiewicz, M. Michalski and R. Rałowski. The inspiration were lemmas from [3].

The aim of the talk is to show theorems of the following form:

Fix a family \mathbb{T} of trees. For every meager set $F \subseteq 2^\omega$ (\mathbb{Z}^ω) and for every tree $T \in \mathbb{T}$ there exists $T' \subseteq T$ such that for every $n \in \omega$

$$F + \underbrace{[T] + [T] + \dots + [T]}_{n\text{-times}} \text{ is meager.}$$

The results obtained in the Cantor space can be found in [2].
The results obtained in the Baire space can be found in [1].

REFERENCES

- [1] Ł. Mazurkiewicz, M. Michalski, R. Rałowski, Sz. Żeberski, On algebraic sums, trees and ideals in the Baire space <https://arxiv.org/abs/2409.17748>.
- [2] M. Michalski, R. Rałowski, Sz. Żeberski, On algebraic sums, trees and ideals in the Cantor space <https://arxiv.org/abs/2405.13775>.
- [3] M. Michalski, Sz. Żeberski, *Some properties of I-Luzin sets*, Topology and its Applications, 189, 122-135, 2015.

WROCLAW UNIVERSITY OF SCIENCE AND TECHNOLOGY, FACULTY OF PURE AND APPLIED MATHEMATICS

Email address: szymon.zeberski@pwr.edu.pl