

MAGIC SETS

(Agnieszka Widz)

Given a family of real functions \mathcal{F} we say that a set $M \subseteq \mathbb{R}$ is magic for \mathcal{F} if

$$\forall_{f,g \in \mathcal{F}} f[M] \subseteq g[M] \Rightarrow f = g.$$

This notion was introduced by Diamond, Pomerance and Rubel in 1981 [1]. Recently some results about magic sets were proved by Halbeisen, Lischka and Schumacher [2]. Inspired by their work I constructed two families of magic sets one of them being almost disjoint and the other one being independent. During my talk I will discuss those results and sketch some of the proofs.

REFERENCES

- [1] H. G. Diamond, C. Pomerance, L. Rubel, *Sets on which an entire function is determined by its range*, *Mathematische Zeitschrift*, 176 (1981), 383-398.
- [2] L. Halbeisen, M. Lischka, S. Schumacher, *Magic Sets*, *Real Anal. Exchange*, 43 (2018), 187 - 204.