GEOMETRIC VIEW ON HOMOGENEOUS GROUPS

Elena Aladova
Bar Ilan University (Ramat Gan, Israel)

In our work we study algebraic structures within the frames of logical geometry. In the talk we will give a short explanation what we mean under the term "logical geometry".

One of the working notions in universal algebra and model theory is homogeneity. Recall an algebra H is *algebraically homogeneous* if every isomorphism between two of its finitely generated subalgebras can be extended up to an automorphism of H. The definition of logical homogeneity is based on the same idea as the notion of algebraic homogeneity and will be given in the talk. Being close by their nature, these notions have also a lot of distinction.

The logical homogeneity can be described using the model-theoretical notion of *a type*. Along with the model-theoretical types we consider *logically-geometrical types*. The last ones provide the bridge between logic and geometry.

Our talk is focused on logically homogeneous groups. We will formulate some results and discuss open problems.

This is joint work with B. Plotkin and E. Plotkin