
SALIH AZGIN, McMaster University, Hamilton, ON

Model Theory of Valued Difference Fields

We will present some recent developments in the model theory of valued fields equipped with a distinguished automorphism as well as some open problems in the area. This study can be carried out in various interesting contexts which depend on the interaction between the valuation and the distinguished automorphism. We obtain Ax–Kochen type results for “valued difference fields” as well as relative quantifier elimination. Some of the techniques introduced for analyzing these structures turn out to provide some perspective for valued fields of positive characteristic.