

STUDENT WORKSHOP SZCZECIN 2019

Speaker: Pierre Touchard (Universität Münster)

Title: *Henselian valued fields and their RV-sorts*

Abstract: In model theory of henselian valued fields, the residue field and the value group take a central role. The most well-known instance is probably the Ax-Kochen-Ershov principal: a henselian valued field of equicharacteristic 0 is model complete relative to its residue field and its value group. However, in some cases, it can be interesting to first consider another structure related to valued fields, namely the RV-sort. Roughly speaking, it is a structure mixing the value group and the residue field. We will see how the RV-sort can play a role similar to that of the residue field and value group, and see how one can use it as an intermediate step for proving Ax-Kochen-Ershov-like results.