Hils, Around definable types in valued fields

In the talk, we will discuss various results on definable types in henselian valued fields, in particular in non-trivially valued algebraically closed fields, i.e., in models of ACVF.

Generalizing work of Hrushovski-Loeser, we show that several spaces of definable types in ACVF supported on an algebraic variety V are strict pro-definable, namely the space of all definable types, the space of all bounded definable types (a model-theoretic analog of the adic space associated to V) and the space of all stably dominated types (a model-theoretic analog of the Berkovich anaytification of V). In case V is a curve, these spaces are even iso-definable. The stably dominated case of these results is due to Hrushovski-Loeser.

This is joint work with Pablo Cubides Kovacsics and Jinhe Ye.