

1042-03-171

Joseph Flenner* (flenner@math.berkeley.edu), Department of Mathematics, 970 Evans Hall #3840, Berkeley, CA 94720. *Definability in characteristic 0 henselian valued fields via the leading terms*. Preliminary report.

Since the work of Ax and Kochen the model theory of henselian valued fields (of characteristic 0) has centered around the idea of the structure of the field being controlled by the structure of the residue field and value group. More recently, the language of leading term structures has emerged as a natural setting for this approach. In light of recent work on algebraically closed valued fields, suitable generalizations to the henselian case are sought. We outline some efforts in this direction including henselian analogues of Cohen's decision procedure for the p -adics and Holly's prototypes for definable subsets of an algebraically closed valued field. (Received August 18, 2008)