

- MARIANA VICARÍA, *Elimination of imaginaries in  $\mathbb{C}((t^\Gamma))$* .

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One of the most striking results in the model theory of henselian valued fields is the Ax-Kochen theorem, which roughly states that the first order theory of a finitely ramified henselian valued field is completely determined by the first order theory of the residue field and its value group.

A model theoretic principle follows from this theorem: any model theoretic question about the valued field can be reduced into a question to its residue field, its value groups and their interaction in the field.

Our leading question is: Can one obtain an Ax-Kochen style theorem to eliminate imaginaries in henselian valued fields?

Following the Ax-Kochen principle, it seems natural to look at the problem in two orthogonal directions: one can either make the residue field tame and understand the problems that the value group brings naturally to the picture, or one can assume the value group to be very tame and study the issues that the residue field would contribute to the problem. In this talk we will address the first approach. I will explain the sorts required to obtain elimination of imaginaries in henselian valued fields of equicharacteristic zero with residue field algebraically closed and more general value groups.