Boğaziçi
MATH COLLOQUIUM

Definable Quotients

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Abstract:

In many areas of mathematics, quotient objects play an important role, and it is often useful to close a category under quotients. In the talk, we will discuss so-called imaginaries, i.e., definable quotients in first order logic. In algebraically closed and in real closed fields, imaginaries may be eliminated. In valued fields, the situation is more interesting, as there are definable quotients like the residue field and value group which may not be eliminated. In algebraically closed valued fields, the imaginaries were classified by Haskell-Hrushovski-Macpherson. We will discuss a recent generalization of their work to more general henselian valued fields, which is joint with Silvain Rideau-Kikuchi.

Date : Wednesday, September 14, 2022
Time: 13:30
Place: TB 130, Boğaziçi University