

First-order classification and non-standard models

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Abstract: In this talk I will discuss some recent advances in the first-order classification problem. I will touch on first-order rigidity and quasi finite axiomatization. However, the main point of the presentation is on how, in principle, one can describe all structures which are first-order equivalent to a given one. This leads to non-standard models of algebraic structures (aka non-standard analysis or non-standard arithmetic), which are interesting in their own right.