

Continuously Comparing Theories

Miguel Moreno

University of Helsinki, Department of Mathematics and Statistics, FI-00014 Gustaf
Hällströminkatu 2b

Shelah's classification theory can be used to study the complexity of the first order theories. Unfortunately classification theory separates first order theories only in two kind, classifiable and non-classifiable, being the first ones less complex. Using classification theory it is not possible to compare two classifiable theories or two non-classifiable ones.

The continuously reducibility between theories gives us a new approach to compare first order theories, this tool provides us with a new and hopefully more refined complexity hierarchy. In order to have the best complexity hierarchy for first order theories these two approaches must give the same results at the moment to compare classifiable theories and non-classifiable ones.

During this presentation, we will explain in more detail these two approaches and how they should interact.