Categoricity of an AEC in three successive cardinals

Marcos Mazari Armida

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In this series of talks we will be working on Abstract Elementary Classes (AECs), a semantic generalization of first order Model Theory.

One of the first things one looses when stepping out of the first order setting is the compactness theorem, which in particular assures us that if there is an infinite model then there is a model in each cardinality. What we will do in this series of talks is prove a theorem in this direction for AECs. More specifically (under some cardinal arithmetic hypothesis) we will show that if an AEC K is categorical in λ, λ^+ and λ^{++} then there is a model in K of size λ^{+++}.

In order to do that we will have to develop many key concepts in the study of AECs like the concept of Galois Type, Reduced Type and Minimial Type. This talks will follow Saharon Shelah paper " Categoricity of an Abstract Elementary Class in two successive cardinals" [Sh576].

Referencias

[Sh576] Saharon Shelah. Categoricity of an Abstract Elementary Class in two successive cardinals. Israel Journal of Mathematics 126 (2001), p. 29 -128.