

Seminář proběhne 20.9.2018 od 13:00 v posluchárně M5.

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Omitting types theorem, conceptual completeness and definability for infinitary logic

Abstract:

We will start by presenting a sheaf-theoretic version of the classical omitting types theorem that generalizes to infinitary logic as a corollary of the infinitary version of Deligne's completeness theorem. This allows to transfer to the infinitary case the classical theorems about atomic and prime models, and also an infinitary version of the Ryll-Nardewski theorem characterizing categorical theories. As a side result during the proof, we will derive a strong version of Löwenheim-Skolem theorem that will allow to provide a reconstruction result for infinitary theories through a semantic site for the classifying topos. This latter presentation entails both conceptual completeness and definability theorems.