KURT GÖDEL RESEARCH CENTER FOR MATHEMATICAL LOGIC

UNIVERSITÄT WIEN

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INVITATION

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SMALL EMBEDDING CHARACTERIZATIONS FOR LARGE CARDINALS, AND INTERNAL LARGE CARDINALS

Abstract:

Many notions of large cardinals are characterized in terms of the existence of certain elementary embeddings with the large cardinal in question as their critical point. A small embedding characterization of a large cardinal notion is one that requires the existence of certain elementary embeddings that map their critical point to the relevant large cardinal. One classic example of such a small embedding characterization is Magidor's small embedding characterization of supercompactness. We show that many other large cardinal notions have small embedding characterizations, in particular also large cardinal notions for which no embedding characterizations have been known to exist at all.

In the second part of this talk, I will then sketch an application of small embedding characterizations, that yields what we call internal large cardinals, which essentially describe what is left of large cardinals after they have been destroyed or collapsed by sufficiently nice forcing. The basic idea is to lift the small embeddings that characterize the initial large cardinals.

This is joint work with Philipp Lücke.

THURSDAY, APRIL 6, 2017
Tea at 3:30pm in the KGRC meeting room (room 104)
Talk at 4:00pm in the KGRC lecture room (room 101)
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