KURT GÖDEL RESEARCH CENTER FOR MATHEMATICAL LOGIC

UNIVERSITÄT WIEN

1090 WIEN, WÄHRINGER STRASSE 25

O.UNIV.-PROF. DR. SY-DAVID FRIEDMAN

INVITATION

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RIGID IDEALS

Abstract:

An ideal I on a cardinal κ is called rigid if all automorphisms of $P(\kappa)/I$ are trivial. Woodin proved that if MA_{ω_1} holds, then every saturated ideal on ω_1 is rigid. In all previously known models containing rigid saturated ideals, GCH fails. In this talk I will discuss recent joint work with Monroe Eskew in which we prove that the existence of a rigid saturated ideal on μ^+, where μ is an uncountable regular cardinal, is consistent with GCH, relative to the existence of an almost huge cardinal. Our proof involves adapting the Friedman-Magidor coding forcing (from the number of normal measures paper) to code a generic for a universal collapsing poset which forces an almost huge cardinal κ to become the successor of an uncountable regular μ. Our forcing is $<\mu$-distributive and in the resulting forcing extension, GCH holds and there is a saturated ideal I on μ^+ such that in any forcing extension by $\mathbb{P} = P(\mu^+)/I$ there is a unique generic filter for $\mathbb{P}$, hence I is rigid.

THURSDAY, MARCH 2, 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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