**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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# FORCING VARIATIONS OF THE MARTIN'S AXIOM

Abstract:

The classical technique of iterated forcing due the Solovay and Tennenbaum provides a constriction of a "$< c$ universal" c.c.c. forcing, i.e. a forcing such that in the generic extension the Martin's Axiom holds; on c.c.c. posets $< c$ generic filters exist. This motivates the following question. Given a reasonable class of (c.c.c.) forcing notions, does there exist a "$< c$ universal" forcing within this class? I will show the answer to this question is YES, the finite support iteration approach still works, but the reasoning is somewhat more involved than in the classical case.

In particular, I will prove that assuming a diamond principle on $\kappa$, given a class of c.c.c. forcings closed on finite support iterations and regular subforcings there is a forcing within this class which forces the Martin Axiom for this class together with the continuum equal to $\kappa$. The talk should be quite basic, I will review the classical method of forcing MA and I will point out the extra challenges in the general setup.

**THURSDAY, JUNE 2, 2016**
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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JOSEPHINUM, 1090 WIEN, WÄHRINGER STRASSE 25

**o.Univ.-Prof. Dr. Sy-David Friedman**