### 

# KURT GÖDEL RESEARCH CENTER FOR MATHEMATICAL LOGIC

## UNIVERSITÄT WIEN

## 1090 WIEN, WÄHRINGER STRASSE 25

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

#### **INVITATION**

# DIEGO ALEJANDRO MEJÍA GUZMÁN (TU Wien)

## SEPARATING THE LEFT SIDE OF CICHON'S DIAGRAM

#### Abstract:

It is well known that, with finite support iterations of ccc posets, we can obtain models where 3 or more cardinals of Cichon's diagram can be separated. For example, concerning the left side of Cichon's diagram, it is consistent that  $\aleph_1 < add(N) < cov(N) < b < non(M) = cov(M) = c$ . Nevertheless, getting the additional strict inequality non(M) < cov(M) is a challenge because subposets of E, the standard ccc poset that adds an eventually different real, may add dominating reals (by Pawlikowski, 1992).

We construct a model of  $\aleph_1 < add(N) < cov(N) < b < non(M) < cov(M) = c$  with the help of chains of ultrafilters that allows to preserve certain unbounded families.

This is a joint work with M. Goldstern and S. Shelah.

#### THURSDAY, NOVEMBER 5, 2015

Tea at 3:30 p.m. in the meeting room (room 104) Talk at 4:00 p.m. in the seminar room (room 101) GÖDEL RESEARCH CENTER JOSEPHINUM, 1090 WIEN, WÄHRINGER STRASSE 25

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