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# KURT GÖDEL RESEARCH CENTER FOR MATHEMATICAL LOGIC

### UNIVERSITÄT WIEN

### 1090 WIEN, WÄHRINGER STRASSE 25

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

INVITATION

## SANDRA UHLENBROCK (KGRC)

# $HOD^{M_N(X,G)}$ IS A CORE MODEL

#### Abstract:

Let x be a real of sufficiently high Turing degree, let  $\kappa_x$  be the least inaccessible cardinal in L[x] and let G be  $Col(\omega, \langle \kappa_x \rangle)$ -generic over L[x]. Then Woodin has shown that  $HOD^{L[x,G]}$  is a core model, together with a fragment of its own iteration strategy.

Our plan is to extend this result to mice which have finitely many Woodin cardinals. We will introduce a direct limit system of mice due to Grigor Sargsyan and sketch a scenario to show the following result. Let  $n \ge 1$  and let x again be a real of sufficiently high Turing degree. Let  $\kappa_x$  be the least inaccessible strong cutpoint cardinal of  $M_n(x)$  such that  $\kappa_x$  is a limit of strong cutpoint cardinals in  $M_n(x)$  and let g be  $Col(\omega, <\kappa_x)$ -generic over  $M_n(x)$ . Then  $HOD^{M_n(x,g)}$  is again a core model, together with a fragment of its own iteration strategy.

This is joint work with Grigor Sargsyan.



http://www.logic.univie.ac.at/ Research\_seminar.html THURSDAY, DECEMBER 1, 2016 Tea at 3:30pm in the KGRC meeting room (room 104) Talk at 4:00pm in the KGRC lecture room (room 101) GÖDEL RESEARCH CENTER JOSEPHINUM, 1090 WIEN, WÄHRINGER STRASSE 25

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