KURT GÖDEL RESEARCH CENTER FOR MATHEMATICAL LOGIC

UNIVERSITÄT WIEN

1090 WIEN, WÄHRINGER STRASSE 25

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

INVITATION

ZOLTÁN VIDNYÁNSZKY
(York University, Toronto, Canada)

BOREL CHROMATIC NUMBERS: FINITE VS INFINITE

Abstract:

One of the most interesting results of Borel graph combinatorics is the G_0 dichotomy, i. e., the fact that a Borel graph has uncountable Borel chromatic number if and only if it contains a Borel homomorphic image of a graph called G_0. It was conjectured that an analogous statement could be true for graphs with infinite Borel chromatic number. Using descriptive set theoretic methods we answer this question and a couple of similar questions negatively, showing that one cannot hope for the existence of a Borel graph whose embeddability would characterize Borel (or even closed) graphs with infinite Borel chromatic number. We will also discuss a positive result and its relation to Hedetniemi's conjecture.

THURSDAY, JUNE 8, 2017
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

http://www.logic.univie.ac.at/Research_seminar.html

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