



**KURT GÖDEL RESEARCH CENTER FOR
MATHEMATICAL LOGIC**

UNIVERSITÄT WIEN

1090 WIEN, WÄHRINGER STRASSE 25

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



INVITATION

**SY-DAVID FRIEDMAN
(KGRC)**

DESCRIPTIVE SET THEORY AND ABSOLUTENESS

Abstract:

One of the initial motivations for the development of descriptive set theory (Borel-Baire-Lebesgue in Paris, Lusin-Egorov in Moscow) was to avoid the difficulties of abstract set theory by focusing on sets of reals which have definitions of low complexity. In this talk I'll take a look at the extent to which this idea succeeds in the study of definable equivalence relations. An analytic equivalence relation can have countably-many (small), uncountably-many but not perfectly-many (medium), or perfectly-many classes (large); in the last case it can be either Borel or non-Borel.

The classes of an analytic equivalence relation can be countable (small) or contain a perfect set (large). For co-analytic equivalence relations they can also be uncountable with no perfect subset (medium). In either case a large class can either be Borel or non-Borel. I'll discuss the absoluteness/non-absoluteness of these notions as well as some related questions which connect to issues in the theory of class forcing.

THURSDAY, MARCH 10, 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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