



**KURT GÖDEL RESEARCH CENTER FOR  
MATHEMATICAL LOGIC**

UNIVERSITÄT WIEN

1090 WIEN, WÄHRINGER STRASSE 25

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



INVITATION

**PAUL GARTSIDE**  
(University of Pittsburgh, Pennsylvania, USA)

**NEIGHBORHOODS, COMPACTA AND THE TUKEY ORDER**

Abstract:

The neighborhoods of a point or set in a topological space form a filter. The compact subsets of a space form a (pre-)filter. Both are directed sets. In this talk we investigate the properties of these directed sets, and the connections between them. The main tool is the Tukey order. We will focus on separable metrizable spaces, and topological objects derived from them, such as function spaces and free topological groups. An important role will be played by chain conditions, in particular calibre  $(\omega_1, \omega)$ . We will then turn this around and use topological techniques to construct interesting examples of directed sets with and without certain chain conditions.

**FRIDAY, MAY 13, 2016**

Sandwiches at 12:00pm in the KGRC meeting room (room 104)

Talk at a convenient time afterwards in the KGRC lecture room (room 101)

GÖDEL RESEARCH CENTER

JOSEPHINUM, 1090 WIEN, WÄHRINGER STRASSE 25

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