



**KURT GÖDEL RESEARCH CENTER FOR  
MATHEMATICAL LOGIC**

UNIVERSITÄT WIEN

1090 WIEN, WÄHRINGER STRASSE 25

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



INVITATION

**DAMIAN SOBOTA**  
(Polish Academy of Sciences, Warsaw)

**THE NIKODYM PROPERTY AND CARDINAL  
INVARIANTS OF THE CONTINUUM**

Abstract:

A Boolean algebra  $\mathcal{A}$  is said to have the Nikodym property if every sequence  $(\mu_n)$  of measures on  $\mathcal{A}$  which is elementwise bounded (i.e.  $\sup_n |\mu_n(a)| < \infty$  for every  $a \in \mathcal{A}$ ) is uniformly bounded (i.e.  $\sup_n \|\mu_n\| < \infty$ ). The property is closely related to the classical Banach-Steinhaus theorem for Banach spaces.

My recent study concerns the problem how (and whether at all) we can describe the structure of the class of Boolean algebras with the Nikodym property in terms of well-known objects occurring inside  $\wp(\omega)$  or  $\omega^\omega$ , e.g. countable Boolean algebras, dominating families, Lebesgue null sets etc. During my talk I will present an attempt to obtain such a description via families of antichains in countable subalgebras of  $\wp(\omega)$  having some special measure-theoretic properties.

If time allows, I will present some consequences of my research for the Efimov problem and  $C^*$ -algebra theory.

**THURSDAY, DECEMBER 10, 2015**

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