



WESTFÄLISCHE
WILHELMS-UNIVERSITÄT
MÜNSTER

Mathematische Institute der WWU – Kolloquium Wilhelm Killing

Group actions on compact and locally compact spaces and their C^* -algebras

Professor Mikael Rørdam (University of Copenhagen)

5.4.2012, 16:30 Uhr, Hörsaal M 5

Kirchberg and Phillips proved in the mid 1990's that the so-called *Kirchberg C^* -algebras* are classified by K -theory. In a joint work with Sierakowski we proved that every exact and non-amenable countable discrete group Γ admits a free minimal amenable action on the Cantor set X such that $C(X) \rtimes_{\text{red}} \Gamma$ is a Kirchberg algebra. The proof relies on properties of the Roe algebra $\ell^\infty(\Gamma) \rtimes \Gamma$ and Tarski's characterization of paradoxical sets in a group. For the similar result for actions on a *non-compact* locally compact Hausdorff space one needs to consider the so-called *supramenable* groups, which are groups that contain no paradoxical subset. We show that every (exact) non-supramenable group admits a free minimal amenable action on the locally compact non-compact Cantor set such that the crossed product is a (non-unital) Kirchberg algebra. This is a part of an ongoing joint work with Kellerhals and Monod.

Tee wird ab 16:00 Uhr im Sitzungszimmer SR o des Mathematischen Instituts serviert.

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