



## Mathematisches Kolloquium

Am Donnerstag, 23.10.2008, 16:30 Uhr, M5, spricht

**Uri Bader**

über das Thema

“The Poisson Boundary of a group, its properties and applications to rigidity“

### Abstract:

The Poisson boundary of a group was defined by Furstenberg in the 60's to encode the asymptotic behaviour of a random walk on the group. It resembles the way the boundary of the Poincare disc determines, by the way of Poisson integrals, harmonic functions on the disc. In recent years it was clarified that this is a remarkable space from ergodic theoretical point of view, satisfying extraordinary dynamical properties. Within the more classical frame work of semi-simple Lie groups, these properties were exploited during the 80's in the celebrated work of Margulis and Zimmer on the Super-rigidity property of lattices. Recently, many new applications were founded, yielding new results for a variety of groups such as Kac-Moody groups, Automorphism groups of buildings and products of groups, as well as for semi-simple groups.

In my talk I will not assume prior knowledge of the notion of the Poisson boundary, neither familiarity with the theorems mentioned above. I will discuss those, and survey the topic as it stands today.

*Möchten Sie regelmäßig über die stattfindenden Vorträge informiert werden?*

*Dann nutzen Sie unseren kostenlosen Email-Service und tragen auf folgender Internet-Seite Ihre Email-Adresse ein:*

<http://listserv.uni-muenster.de/mailman/listinfo/gk-topologie>

