

## Vorträge

**Mittwoch, 15. Juni 2011, ab 16:15 Uhr, Olga Taussky-Todd Raum (C 209), UZA 4**

### **Mathematisches Kolloquium**

**Univ.-Prof. Dr. Klaus Schmidt: “Entropy and periodic points of algebraic actions of discrete amenable groups”**

**(15:45 Uhr bis 16:15 Uhr: K & K im Common Room)**

**Abstract:** If  $G$  is a discrete amenable group, every element  $f$  in the integral group ring  $ZG$  defines a measure-preserving action  $\alpha_f$  of  $G$  by automorphisms of a compact abelian group  $X_f$ . This action is automatically ergodic whenever  $G$  is not essentially equal to the group of integers.

The entropy of this 'algebraic' action  $\alpha_f$  is an interesting quantity associated with the element  $f$  in  $ZG$ . If  $G = \mathbb{Z}^d$ , then it is the logarithmic Mahler measure of  $f$  (viewed as a Laurent polynomial in  $d$  variables with integer coefficients). If  $G$  is residually finite and the action  $\alpha_f$  is expansive, it is the logarithmic growth rate of the number of periodic points of  $\alpha_f$ , which in turn coincides with the logarithm of the Fuglede-Kadison determinant associated with  $f$  (viewed as an element of the group von Neumann algebra of  $G$ ).

If  $\alpha_f$  is nonexpansive, the connection between entropy, the logarithmic growth rate of periodic points, and Fuglede-Kadison determinants holds many mysteries, even for  $G = \mathbb{Z}^d$ . Some of these problems will be discussed in this lecture.

This talk is based on joint work with C. Deninger, D. Lind and E. Verbitskiy.

### **Dekan Univ.-Prof. Dr. Harald Rindler, V.-Prof. Mag. Dr. Herwig Hauser**

**Dienstag, 14. Juni 2011, TU, Institut für Informationssysteme, Favoritenstraße 9, Seminarraum von Neumann, (Erdgeschoss)**

### **WPI Vortrag**

**14:00 Uhr: “Koivisto Mikko: Exponential-time algorithms for Bayesian networks”**

**15:00 Uhr: “Liedloff Mathieu: “A Fast Exact Algorithm for L(2,1)-Labeling of Graphs”**

Link: [http://www.wpi.ac.at/talks\\_view.php](http://www.wpi.ac.at/talks_view.php)

**Freitag, 17. Juni 2011, Freihaus, grüner Turm (A), 5. Stock, kleiner Seminarraum 104, Wiedner Hauptstraße 8-10, 1040 Wien**

### **Algebra Seminar (Im Rahmen der Lehrveranstaltung "Seminar mit Seminararbeit")**

**12:00 Uhr: Victoria Fiedler: Partitionverbände**

**13:00 Uhr: Andreas Fellner: Fraktale Verbände**

Link: <http://www.dmg.tuwien.ac.at/fg1/seminar.html>

**Donnerstag, 16. Juni 2011, von 12:00 Uhr bis 13:00 Uhr. Seminarraum 2A 310, UZA 2**

### **Algebra-Kolloquium**

**J.S. Wilson: „Hereditarily just infinite groups“**

Link: <http://plone.mat.univie.ac.at/vortrage/ak>

**Freitag, 17. Juni, 2011, von 14:00 Uhr bis 16:00 Uhr, Leopold Schmetterer Seminarraum des Instituts für Statistik und OR, 3. Stock Universitätsstraße 5, 1010 Wien**

### **Berufungsvorträge Mathematics and Finance**

**Joachim Grammig: “Creative Destruction and Asset Prices”**

**(Details siehe Attachment)**