



Mathematisches Kolloquium

Am Freitag, den 20. April 2012 spricht um 14.00 c.t. Uhr im Hörsaal IV der Fachrichtung Mathematik (Gebäude E2 4)

**Prof. Dr. Serban Belinschi
Saskatoon, Kanada**

über das Thema:

**Was ist überhaupt Freie Wahrscheinlichkeitstheorie?
A (mostly) analytic perspective**

Abstract: The introduction of free probability in the early '80s by Dan Voiculescu was motivated by problems in the theory of von Neumann algebras. But about a decade later, Voiculescu proved a groundbreaking result, which 'put „probability“' back in „free probability“: it essentially states that independent unitarily invariant random matrices are asymptotically free as their size tends to infinity. In this talk we will introduce free probability from the perspective of an analytic understanding of this asymptotic freeness result. We will continue with a presentation of some of the main analytic tools of free probability and a few of the results they allow us to obtain. Time permitting, we will conclude with a brief outline of operator-valued free probability and some of the typical results and open problems of the field.

Der Gast wird von Prof. Dr. R. Speicher betreut.

Alle Interessenten sind zum Vortrag herzlich eingeladen.

Kaffee ab 13.45 Uhr im Konferenzraum der Mathematik (EG - 1.03)

Die Dozenten der Mathematik