

Institut für Optimierung und Diskrete Mathematik

Mathematisches Kolloquium

Freitag 18.10.2013

16:00 Kaffeepause

16:30 Vortrag

Steyrergasse 30

Kaffeepause: C208, 2. Stock

Vortrag: Hörsaal BE01, Parterre

From Irrational Numbers to Perfect Matchings - 100 Years of Markovs Uniqueness Conjecture

MARTIN AIGNER

(Freie Universität Berlin)

A celebrated result in number theory is the Theorem of Markov which relates two seemingly totally different subjects: approximations of irrational numbers and the solutions of a certain equation. The proof, which Markov only sketched, was studied in great detail by Frobenius precisely 100 years ago. In his paper Frobenius mentioned a problem, now known as the uniqueness conjecture, which has remained unsolved to this day. I will tell you about the theorem and the conjecture and discuss, in particular, the amazing connections to trees, groups, combinatorics of words, lattice paths, and perfect matchings of plane graphs.

Mihyun Kang