



Universität Konstanz

**Fachbereich
Mathematik und Statistik**
Schwerpunkt
Reelle Geometrie und Algebra

Einladung

Im Oberseminar *Reelle Geometrie und Algebra* hält

Tom Kriel

(Universität Konstanz)

am **Freitag, 03.02.2017**, einen Vortrag zum Thema:

Introduction to free spectrahedra

Der Vortrag findet um **13:30 Uhr** in **F426** statt.

Alle Interessenten sind herzlich eingeladen.

Abstract: Free spectrahedra are a refinement of the concept of spectrahedra. The latter are sets of the form $\{x \in \mathbb{R}^n \mid L(x) \succeq 0\}$ where $L \in S\mathbb{R}[\overline{X}]_1^{\delta \times \delta}$ is a matrix with polynomials of degree at most 1 as entries.

We will explain some basic techniques used in the study of free spectrahedra. After we will give a new proof of a theorem by Helton & McCullough which describes free spectrahedra as the sets which are matrix convex and free basic semialgebraic closed.

Sebastian Gruler
Koordinator Oberseminar