

# AG Diskrete Mathematik und Mathematische Informatik

Am **Freitag, 04.06.2010, 14.15 Uhr, Raum 711 groß** (Robert-Mayer-Str. 10, Campus Bockenheim), findet folgendes

**Special Seminar am „Fronleichnamstag“**

statt:

**Convex Algebraic Geometry**

**Prof. Dr. Bernd Sturmfels**  
**University of California at Berkeley**

## Abstract

Convex algebraic geometry is an emerging field at the interface of convex optimization and algebraic geometry. A primary focus lies on the mathematical underpinnings of semidefinite programming. This lecture offers a self-contained introduction. Starting with elementary questions concerning multifocal ellipses in the plane, we move on to discuss the geometry of spectrahedra and orbitopes, and we end with recent results on the convex hull of a real algebraic variety.