

# APPLIED MATHEMATICS COLLOQUIUM

## CONVEX ALGEBRAIC GEOMETRY

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**ABSTRACT:**

Convex algebraic geometry is an emerging field at the interface of convex optimization and algebraic geometry. A primary focus lies on the geometric underpinnings of semi definite programming. This lecture offers a self-contained introduction. Starting with elementary questions concerning multifocal ellipses in the plane, we move on to discuss singularities and projections of spectrahedra, and new algorithms for real algebraic varieties.

**MONDAY MAY 11<sup>TH</sup> 2009**

**4:30 PM**

**Building 4, Room 237**

*Refreshments at 4:00 PM in Building 2, Room 349  
(Applied Math Common Room)*

Applied Math Colloquium: <http://www-math.mit.edu/amc/spring09>  
Math Department: <http://www-math.mit.edu>



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