

THEORY AND ALGORITHMS OF LINEAR MATRIX INEQUALITIES

Workshop Schedule

Monday, August 1, 2005

9:00 am Welcome
Introductions
Overview

2:00 pm 3 min. Talks
4:00 Discussion
5:00 pm Happy Hour

Tuesday, August 2, 2005

9:00 am Jean Lasserre Generalized Problem of Moments
10:30 am Discussion

2:00 pm Section I
Sanjay Lall Systems & Control (Introduction)
& Jan Willems
Carsten Scherer From systems to LMIS
Section II
Levent Tuncel Hyperbolic Polynomials
Wing-Suet Li Eigenvalue Horn Inequalities
Leonid Gurvits Hyperbolic Horn Inequalities

5:00 pm Happy Hour
6:45 pm Workshop Banquet

Wednesday, August 3, 2005

9:00 am Konrad Schmüdgen Commutative & Non-commutative
Positivstellensätze

10:30 am Section I Non-commutative Real Algebraic
geometric applications
Section II Determinantal Representations

2:00 pm Section I Differential Operatoras & Lyapunov Inequalities
Section II Lifting LMI reps, Moment Methods, etc.

5:00 pm Happy Hour

Thursday, August 4, 2005

9:00 am Vicky Powers Real Algebraic Geometry

10:30 am Section I Fischer Duality
Section II Model Reduction

2:00 pm Section I Minimum Rank Problems
5:00 pm Happy Hour

Friday, August 5, 2005

9:00 am Section I Numerical Methods, Software, etc.
Section II Many Variable Systems Interpolation,
Single Square Factorization

10:50 am Dan Voiculescu Operator Algebras/Free Probability
Aspects of Operator Inequalities

2:30 pm Real Algebraic Geometry vs Operator Theory,
and How to teach them

3:30 pm Open Problems

5:00 pm Happy Hour