

Robert C. Thompson Matrix Meeting 2007 Program

249 Parker Hall, Department of Mathematics & Statistics

Auburn University, Auburn, AL 36849-5310

Saturday, March 24, 2007

Morning Session

8:30-8:50am *Registration*

8:50 – 9:05 *Welcome*

Michel Smith (Department Chair of Mathematics & Statistics, Auburn University)

Jane Day (San Jose State University)

9:05 – 9:30 **Tom Pate** (Auburn University)

A new lower bound inequality for the norm of the symmetric product

9:30 – 9:55 **Marina Arav** (George State University)

Rational realizations of the minimum rank of a sign pattern matrix

9:55 – 10:20 **Peter Nylén** (Auburn University)

Partial distance matrices and spring network equilibrium

10:20 – 10:50 Break

10:50 – 11:15 **Helena Smigoc** (University College Dublin)

Spectrum of nonnegative matrices

11:15 – 11:40 **Wen Yan** (Tuskegee University)

Unitary completions of complex symmetric and skew symmetric matrices

11:40 – 12:05 **Chi-Kwong Li** (College of William and Mary)

Numerical ranges of the powers of an operator

12:05 – 12:30 **Raymond Sze** (University of Connecticut)

Optimization of the spectral radius of a product for nonnegative matrices

Lunch 12:30 – 2:00 Group photo and Pizza

Afternoon Session

2:00–2:25 **Ron Smith** (University of Tennessee at Chattanooga)

Some remarks on inverse M-matrices

2:25 – 2:45 **Jane M. Day** (San Jose State University)

Application of a singular value inequality to graph energy

2:45 – 3:10 **Joerg Feldvoss** (University of South Alabama)

Poisson superbrackets, the classical Yang-Baxter operator, and determinants

3:10 – 3:35 **Huajun Huang** (Auburn University)

On Gelfand-Naimark decomposition of a nonsingular matrix

3:35 – 4:00 Break

4:00 – 4:25 **Peter Gibson** (University of Alabama in Huntsville)

On eigenvalues of certain classes of matrices

4:25 – 4:50 **Zhongshan Li** (Georgia State University)

Spectrally arbitrary tree sign pattern matrices

4:50 – 5:15 **Hongyu He** (Louisiana State University)

Linear algebra method in reconstruction

5:15-5:40 **Fuzhen Zhang** (Nova Southeastern University)

Hua's matrix equality and Schur complements

Dinner 6:15 at **China Palace** (on N. College Street, walking distance from Auburn Hotel and Conference Center) Buffet style