MatTriad-2013, Herceg Novi, Montenegro

16-20 Sep 2013

PROGRAM

Monday, September 16

8:45- 8:55 OPENING

9:00- 9:45
Invited speaker: Richard A. Brualdi
Title: *Alternating Sign Matrices: History, Patterns, Completions, and Spectral Radius*
Chairperson: Tomasz Szulc

9:45 - 10:00 BREAK

10:00 - 11:30
Invited lecturer: Siegfried M. Rump
Lecture 1: *Perron-Frobenius Theory for complex matrices*
Chairperson: Vladimir Kostić

11:30 - 11:45 BREAK

Short presentations

Chairperson: Natalia Bebiano

11:45 - 12:10 Tomasz Szulc : *Estimation of extremal singular values*

12:10 - 12:35 J.A. Armario : *Determinants of* $(-1, 1)$*-matrices of the skew-symmetric type: a cocyclic approach*

12:35 - 13:00 D. Wojtera-Tyrakowska : *Extremal values of modified equiradial and equimodular sets of a given matrix*

13:00 - 15:00 LUNCH BREAK

Chairperson: Miroslav Rozložnik

15:00 - 15:25 Rafael Bru : *Jordan structure of rank one updated matrix*

15:25 - 15:50 Ana Nata : *The indefinite numerical range of banded biperiodic Toeplitz operators*

15:50 - 16:15 Natália Bebiano : *Revisiting the inverse field of values problem*

16:15 - 16:40 Apostolos Hadjidimos : *On Brauer-Ostrowski and Brualdi sets*

16:40 - 17:00 BREAK

Chairperson: Rafael Bru

17:00 - 17:25 Ernest Šanca : *Diagonal dominance in Euclidian norm*

17:25 - 17:50 Sanja Konjik : *Symplectic linear algebra over Colombeau-generalized numbers*

17:50 - 18:15 Peter Junghanns : *Structured matrices in the numerical analysis of singular integral equations*

18:15 - 18:40 Yücel Çenesiz : *Using the fundamental matrix properties in collocation methods*

Tuesday, September 17

9:00- 9:45
Invited speaker: Paulo Canas Rodrigues
Title : *The role of matrix analysis in statistical genetics*
Chairperson: Heike Fassbender

9:45 - 10:00 BREAK

10:00 - 11:30
Invited lecturer : Adi Ben-Israel
Lecture 1: *The Moore–Penrose inverse*
Chairperson: Vladimir Kostić

11:30 - 11:45 BREAK

Short presentations

Chairperson: Augustyn Markiewicz

11:45 - 12:10 Simo Puntanen : *All about the* $\perp$

12:10 - 12:35 Francisco Carvalho : *Orthogonal and error orthogonal models and perfect families*

12:35 - 13:00 Anuradha Roy : *Supervised classifiers of ultra high-dimensional higher-order data with locally doubly exchangeable covariance structure*

13:00 - 15:00 LUNCH BREAK

Chairperson: Francisco Carvalho

15:00 - 15:25 Miguel Fonseca : *Non-normal linear mixed models*

15:25 - 15:50 Ricardo Covas : *Models with homoscedastic otyhogonal partition, BQUE and mixed models*

15:50 - 16:15 Augustyn Markiewicz : *On some matrix aspects of design optimality in interference model*

16:15 - 16:40 Katarzyna Filipiak : *Optimal designs under the generalized extended growth curve model*

16:40 - 17:00 BREAK

Chairperson: Katarzyna Filipiak

17:00 - 17:25 Wojciech Tadej : *Affine Hadamard families stemming from Kronecker products of Fourier matrices*

17:25 - 17:50 Jakub Kierzkowski : *On convergence of SOR-like methods for solving the Sylvester equation*

17:50 - 18:15 Rute Lemos : *Reverse Heinz-Kato-Furuta inequality*

18:15 - 18:40 Karla Rost : *Inversion of Bezoutians*

Wednesday, September 18

9:00- 9:45
Invited speaker: Stephen Kirkland
Title: *Optimizing the Kemeny constant for a Markov chain*
Chairperson: Simo Puntanen

9:45 - 10:00 BREAK

10:00 - 11:30
Invited lecturer: Siegfried M. Rump
Lecture 2: *Structured perturbations-normwise and componentwise*
Chairperson: Vladimir Kostić

11:30 - 11:45 BREAK

Short presentations

Chairperson: Miloš Stojaković

11:45 - 12:10 Mika Mattila : *Meet matrices, graphs and positive definiteness*

12:10 - 12:35 Enide A. Martins : *On the Laplacian and signless Laplacian spectrum of a graph with k pairwise co-neighbor vertices*

12:35 - 13:00 Domingos M. Cardoso : *A combinatorial simplex-like approach to graphs with convex-qp stability number using star sets*

13:00 - 15:00 LUNCH BREAK

15:00 EXCURSION

Thursday, September 19

9:00- 9:45 POSTER SESSION

9:45 - 10:00 BREAK

10:00 - 11:30
Invited lecturer: Adi Ben-Israel
Lecture 2: *Selected applications*
Chairperson: Vladimir Kostić

11:30 - 11:45 BREAK

Short presentations

Chairperson: Ana Nata

11:45 - 12:10 Célia S. Moreira : *Coupled cell networks and matrix theory*

12:10 - 12:35 Avi Berman : *Signed zero forcing*

12:35 - 13:00 Marko Orel : *Adjacency preservers*

13:00 - 15:00 LUNCH BREAK

Chairperson: Apostolos Hadjidimos

15:00 - 15:25 Isabel Giménez : *The combined matrix of a nonsingular H-matrix*

15:25 - 15:50 Maria T. Gassó : *Combined matrices of totally negative matrices*

15:50 - 16:15 Pavel A. Inchin : *Mathematical models for macro systems in the presence of limiting factors*

16:15 - 16:40 Irina N. Pankratova : *On some properties of invariant subspaces of linear operator containing cycles of rays*

16:40 - 17:00 BREAK

Chairperson: Sanja Konjik

17:00 - 17:25 Miloš Stojaković : *Small sample spaces of permutations*

17:25 - 17:50 Fatih Yilmaz : *Bidiagonal matrices and the Fibonacci and Lucas numbers*

17:50 - 18:15 Durmuş Bozkurt : *The determinant and inverse of a circulant matrix with third order linear recurrence entries*

18:15 - 18:40 Murat Gübeş : *Some well-known number sequences and their determinantal representations*

Friday, September 20

Short presentations

Chairperson: Jelena Aleksić

9:00- 9:25 Miroslav Rozložnik : *Numerical behavior of matrix splitting iteration methods*

9:25 - 9:50 Maja Nedović : *Generalizations of diagonal dominance and applications to max-norm bounds of the inverse*

9:50 - 10:15 Petr Tichý : *On matrix approximation problems that bound GMRES convergence*

10:15 - 10:40 Iwona Wróbel : *Numerical aspects of matrix inversion*

10:40 - 11:05 Krystyna Ziętak : *The dual Padé families of iterations for the matrix p-th root and the matrix p-sector function*

11:05 - 11:20 BREAK

Chairperson: Krystyna Ziętak

11:20 - 11:45 Sivakumar K.C. : *Generalized inverses and linear complementarity problems*

11:45 - 12:10 Jaroslav Horáček : *On solvability and unsolvability of overdetermined interval linear systems*

12:10 - 12:35 Milan Hladik : *Complexity issues for the symmetric interval eigenvalue problem*

12:35 - 13:00 Dragana Gardašević : *Geršgorin set for quadratic eigenvalue problem*