

# Program

Wednesday, July 23, 2008

**Plenary session** – Probability and Stochastic Processes  
– Chair: **Simo Puntanen**

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|--------------|---|
| 8:55 – 9:00  | <i>Opening</i>  |
| 9:00 – 9:40  | A. Ben-Israel: <i>Probabilistic distance clustering</i>   |
| 9:40 – 10:20 | C. A. Braumann: <i>Stochastic differential equation models for population growth and for individual growth in randomly varying environments</i> |

**10:20 – 10:40 Coffee Break**

**Plenary session** – Recent Advances I – Chair: **George P. H. Styan**

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| 10:40 – 11:20 | M. Perlman: <i>A SINful approach to Gaussian graphical model selection</i> |
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**Contributed session** – Time Series and Stochastic Processes  
– Chair: **Carlos A. Braumann**

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| 11:30 – 11:50 | J. Hunter: <i>Bounds on expected coupling times in a Markov chain</i>                |
| 11:50 – 12:10 | R. Kala: <i>A note on Anderson's note on a stationary autoregressive process</i>     |
| 12:10 – 12:30 | D. G. Pereira: <i>Stochastic search for eigenvalues and eigenvectors</i>             |
| 12:30 – 12:50 | H. Naseri: <i>Linear prediction of multivariate processes with infinite variance</i> |

**Contributed session** – Data Analysis – Chair: **Dinis D. Pestana**

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| 11:30 – 11:50 | S. Pollock: <i>The realisation of finite-sample frequency-selective filters</i>   |
| 11:50 – 12:10 | S. Unkel: <i>Simultaneous parameter estimation in exploratory factor analysis</i> |
| 12:10 – 12:30 | S. Shinmura: <i>Comparison of revised IP-OLDF and revised IPLP-OLDF by LINGO</i>  |
| 12:30 – 12:50 | C. Andrade: <i>Application of PCA in atmospheric sciences</i>                     |

**13:00 – 14:00 Lunch**

**Plenary session – Experimental Designs I – Chair: João T. Mexia**

- 14:00 – 14:40 T. Caliński: *On the application of affine resolvable designs to variety trials*  
14:40 – 15:20 S. Mejza: *Incomplete split-plot designs: perspectives and challenges*

**15:20 – 15:40 Coffee Break**

**Contributed session – Experimental Designs II  
– Chair: Stanisław Mejza**

- 15:40 – 16:00 S. Ferreira: *Inference for almost balanced models*  
16:00 – 16:20 W. Alnosaier: *A simplified Kenward-Roger approximate F test with application to block designs*  
16:20 – 16:40 J. M. Rodriguez-Diaz: *Some properties on the coefficients of the characteristic polynomial of the information matrix in optimal design of experiments*  
16:40 – 17:00 S. Monteiro:  *$2^{(n-p)}$  designs - algorithms for constructing fractions*

**Contributed session – Matrices I – Chair: Götz Trenkler**

- 15:40 – 16:00 G. Cravo: *On controllability of partially prescribed matrices*  
16:00 – 16:20 M. Seddighin: *Extending Hölder-McCarty inequality to accretive normal matrices operators*  
16:20 – 16:40 J. Benítez: *Using the CS decomposition to study linear combinations of Moore-Penrose Hermitian matrices*  
16:40 – 17:00 O. M. Baksalary: *Exploring generalized and hypergeneralized projectors along Route 66*

**Contributed session – Inference I – Chair: S. Ejaz Ahmed**

- 17:10 – 17:30 Y. Dodge: *New developments in direction dependency*  
17:30 – 17:50 C. Nunes: *Non-central F distributions with non-centrality parameters with gamma distributions*  
17:50 – 18:10 S. Mirakhmedov: *Asymptotic efficiencies of the Greenwood's goodness-of-fit test*

**Contributed session** – Linear Inference I  
– Chair: **Dietrich von Rosen**

- 17:10 – 17:30 S. Haslett: *Delete-k residuals for generalized linear models*  
17:30 – 17:50 M. Ucal: *An empirical comparison of model selection criteria for parametric and nonparametric regression*  
17:50 – 18:10 C. Santos: *Structured families of normal models with COBS*  
18:10 – 18:30 S. Inácio: *Comparing the centres of pared series of studies*

**Thursday, July 24, 2008**

**Plenary session** – Linear Inference II – Chair: **Tadeusz Caliński**

- 9:00 – 9:40 J. Volaufová: *Heteroscedastic ANOVA - old solutions, new views*  
9:40 – 10:20 R. Zmyślony: *Jordan Algebras and applications to the mixed linear models*

**10:20 – 10:40 Coffee Break**

**Plenary session** – Testing – Chair: **Muni S. Srivastava**

- 10:40 – 11:20 S. E. Ahmed: *Simultaneous estimation and testing of several Cronbach's alpha*

**Contributed session** – Linear Inference III – Chair: **A. Markiewicz**

- 11:30 – 11:50 F. Carvalho: *Nesting and crossing segregated mixed models*  
11:50 – 12:10 R. Covas: *Binary operations, lattices and genealogical tree of Jordan algebras: a framework for analyzing mixed linear models*  
12:10 – 12:30 P. Bertrand: *What is missing from methods to solve problems where data values are missing?*

**Contributed session** – Economic, Financial and Actuarial Mathematics  
– Chair: **Stephen Pollock**

- 11:30 – 11:50 B. Oliveiros: *Child anxiety and school success - percentiles of Portuguese population*  
11:50 – 12:10 H. Naseri: *Stochastic risk model in life insurance*  
12:10 – 12:30 R. São João: *Modeling congestive heart failure using generalized linear models with binary response variable*

**13:00 – 14:00 Lunch**

**Special session – Chair: George P. H. Styan**

- 14:00 – 14:40 T. W. Anderson: *Linear functional relationships with repeated observations*  
14:40 – 14:50 *Discussion*

**14:50 – 15:10 Coffee Break**

**Special session – part II**

- 15:10 – 15:50 G. P. H. Styan: *An annotated and illustrated bibliography with hyperlinks for T. W. Anderson*

**19:00 Barbecue**

**Friday, July 25, 2008**

**Plenary session – Matrices II – Chair: Michael Perlman**

- 9:00 – 9:40 C. R. Johnson: *Why is so much "eventually" true*  
9:40 – 10:20 I. Olkin: *Probabilistic proofs of matrix inequalities*

**10:20 – 10:40 Coffee Break**

**Plenary session – Recent Advances II – Chair: Lynn R. LaMotte**

- 10:40 – 11:20 A. Markiewicz: *On recent development in admissible and linearly sufficient estimation in linear models*

**Contributed session – Matrices III – Chair: Alexander Kovacec**

- 11:30 – 11:50 M. C. Gouveia: *On a singular Toeplitz-pencil*  
11:50 – 12:10 F. Martins: *Eigenvalues of circulant matrices*  
12:10 – 12:30 N. Bebiano: *A relative operator entropy in Krein spaces*  
12:30 – 12:50 M. Madiman: *Determinant and trace inequalities for sums of positive-definite matrices*

**Contributed session – Experimental Desings III  
– Chair: Douglas Wiens**

- 11:30 – 11:50 A. Szczepańska: *Optimal designs in multivariate models with nuisance parameters and unknown dispersion matrix*  
11:50 – 12:10 P. Canas Rodrigues: *Genotype × environment interaction - challenges and perspectives*  
12:10 – 12:30 K. Filipiak: *Connectivity properties of circular BIB designs under an interference model*

**13:00 – 14:00 Lunch**

**Plenary session – Estimation – Chair: Adi Ben-Israel**

- 14:00 – 14:40 M. S. Srivastava: *Testing the equality of several covariance matrices with fewer observations than the dimension*  
14:40 – 15:20 D. von Rosen: *Estimation in multivariate linear models with Kronecker product covariance structure*

**15:20 – 15:40 Coffee Break**

**Contributed session – Distribution Theory**

– Chair: **Jeffrey Hunter**

- 15:40 – 16:00 A. Arlotto: *Hessian orders and multinormal distributions*  
16:00 – 16:20 L. Grilo: *The exact and near-exact distributions for the generalized Wilks Lambda statistic used in the test of independence of several sets of variables*  
16:20 – 16:40 F. Marques: *A general near-exact distribution theory for the most common likelihood ratio test statistics used in multivariate statistics*

**Contributed session – Linear Inference IV**

– Chair: **Stephen Haslett**

- 15:40 – 16:00 S. Puntanen: *Some peculiar properties of the BLUE's covariance matrix*  
16:00 – 16:20 D. Ferreira: *Adjustment of normal mixed models through triple minimization*  
16:20 – 16:40 R. Lemos: *J-chaotic order and J-relative entropy*  
16:40 – 17:00 J. Hauke: *Moran's coefficient and algebraic characteristics of some standardized connectivity matrices used to measure a spatial autocorrelation*

**17:10 – Excursion**

**20:00 – Conference Dinner**

**Saturday, July 26, 2008**

**Plenary session – Experimental Designs IV**

– Chair: **Roman Zmyślony**

- 9:00 – 9:40 D. D. Pestana: *Optimal and quasi optimal designs*  
9:40 – 10:20 D. Wiens: *Robust discrimination design*

**10:20 – 10:40 Coffee Break**

**Plenary session – ILAS Session – Chair: Charles R. Johnson**

- 10:40 – 11:20 R. B. Bapat: *Determinant and inverse of the distance matrix of a tree*

**Contributed session – Matrices IV – Chair: Natália Bebiano**

- 11:30 – 11:50 T. von Rosen: *On a new class of singular nonsymmetric matrices with nonnegative integer*  
11:50 – 12:10 A. Nata: *k-Numerical ranges and Toeplitz matrix*  
12:10 – 12:30 R. Teixeira: *Indefinite numerical range of  $3 \times 3$  matrices*  
12:30 – 12:50 A. Armandnejad: *Right gw-majorization on  $M_{n,m}$*

**Contributed session – Linear Inference V**

– Chair: Hans J. Werner

- 11:30 – 11:50 P. Ramos: *Commutative Jordan algebras piling - application to step nested designs*  
11:50 – 12:10 M. de Carvalho: *Inference in mixed models: further applications of the dimension*  
12:10 – 12:30 V. Jesus: *Interaction between factors that nest: application to prime basis factorials*  
12:30 – 12:50 S. Oliveira: *Regressional designs using prime basis factorials with blocks*

**13:00 – 14:00 Lunch**

**Plenary session – Linear Algebra and Applications**

– Chair: Júlia Volaufová

- 14:00 – 14:40 L. R. LaMotte: *Properties of families of probability distributions over finite parameter and sample spaces via linear algebra*  
14:40 – 15:20 G. Trenkler: *Column space equalities for orthogonal projectors*

**15:20 – 15:40 Coffee Break**

**Contributed session – Matrices V – Chair: Ravindra B. Bapat**

- 15:40 – 16:00 A. Kovacec: *Hankel pencil conjecture*  
16:00 – 16:20 H. J. Werner: *Some more results on projectors*  
16:20 – 16:40 J. Cadima: *Relations between the singular value decompositions of column doubly- and uncentred matrices*

**Contributed session – Inference II – Chair: Yadolah Dodge**

15:40 – 16:00	C. Rohde: <i>Robust estimation and profile likelihood in the MVN distribution</i>
16:00 – 16:20	J. de Miranda: <i>The variance of random determinants</i>
16:20 – 16:40	M. Amezziane: <i>Kernel based robust estimation of a location parameter</i>
16:40 – 17:00	A. Cantarinha: <i>Collective model for forest fires assessment</i>

**Closing session – Chair: Carlos A. Coelho**

17:10 – 17:50	G. P. H. Styan: <i>Some comments on the magic card puzzle, illustrated with images of playing cards and postage stamps</i>
17:50 – 18:00	<i>Closing</i>