Tuesday, August 5, 2003

8:30–10:15 Tuesday, Registration, Coffee and Cakes, in front of Auditorium 7

10:15–10:45 Tuesday, Welcome and Opening Remarks: Auditorium 7

Professor Dr. Eberhard Becker, Rector of the University of Dortmund, will open the Workshop

10:45–12:15 Tuesday, Invited Paper Session AI1: Auditorium 7

Chair: Hans Joachim WERNER *(University of Bonn)*

10:45 Jerzy K. BAKSALARY *(Zielona Góra University)*: Some recent results concerning algebraic problems inspired by or related to mathematical statistics [A-1] (ILAS-Lecture)

11:30 Adi BEN-ISRAEL* *(Rutgers University)*, Cem IYIGUN *(Rutgers University)* and Zachary STOUMBOS *(Rutgers University)*: Singularity or ill-conditioning are not always bad news [A-4]

12:00 Simo PUNTANEN* *(University of Tampere)* and George P. H. STYAN* *(McGill University, Montréal)*: Memories from Tampere '83: twenty years later! [A-35]

12:15–12:30 Tuesday, Group Photograph

12:30–14:00 Tuesday, Lunch Break: Campus Treff

14:00–15:40 Tuesday, Contributed Paper Session AC1: Auditorium 7

Chair: Jürgen GROß *(University of Dortmund)*

14:00 Hartmut KOGELSCHATZ *(University of Heidelberg)*: On the Leontief inverse of a beta distributed input matrix [A-26]

14:25 Peter LEGIŠA *(University of Ljubljana)*: Automorphisms of M_n, partially ordered by rank subtractivity ordering [A-27]

14:50 Frederieke van PERLO-ten Kleij* *(University of Groningen)*, Ton STEERNEMAN *(University of Groningen)* and Amy WONG *(University of Groningen)*: Properties of the matrix $A - XY'$ [A-31]

15:15 Alicja SMOKTUNOWICZ *(Warsaw University of Technology)*: Iterative refinement of the singular values and the Moore-Penrose inverse [A-38]

15:40–16:00 Tuesday, Afternoon Coffee Break

16:00–17:40 Tuesday, Contributed Paper Session AC2, Auditorium 7

Chair: Ludwig ELSNER *(University of Bielefeld)*

16:00 Guntram HAINKE* *(University of Dortmund)* and Eberhard BECKER *(University of Dortmund)*:
A simple and algorithmic proof of the elementary divisors theorem [A-19]

16:25 Wilfried HAZOD *(University of Dortmund)*: Normalisers and centralisers of compact matrix groups. An elementary
approach [A-21]

16:50 Tomasz SZULC* *(Adam Mickiewicz University)* and Ludwig ELSNER */University of Bielefeld)*:
Criteria for block P-property [A-42]

17:15 Natalia K. PRYKARPATSKA *(AGH University of Science and Technology of Krakow & Nat. Acad. of Sciences of Lviv)*,
A. M. SAMOILENKO *(Institute of Mathematics of Kyiv)*, Anatoliy K. PRYKARPATSKY* *(AGH University of Science
and Technology of Krakow & Nat. Acad. of Sciences of Lviv)* and D. L. BLACKMORE *(New Jersey Institute of Technology
of USA)*: The Hopf algebras and the Heisenberg-Weil co-algebra related integrable flows [A-33]

Wednesday, August 6, 2003

09:00–10:15 Wednesday, Contributed Paper Session BC1: Auditorium 7

Chair: Stephen POLLOCK *(University of London)*

09:00 Anyue CHEN *(University of Greenwich)*: Resolvent decomposition theorem and its applications in continuous time Markov
chains [A-6]

09:25 Jeffrey J. HUNTER *(Massey University)*: Perturbed Markov chains [A-23]

09:50 Kostas TRIANTAFYLLOPOULOS* *(University of Newcastle)* and Ed GODOLPHIN *(Royal Holloway University of
London)*: Projecting trends for multivariate processes [A-43]

10:15–10:45 Wednesday, Morning Coffee Break

10:45–12:45 Wednesday, Invited Paper Session BI1: Auditorium 7

Chair: George P. H. STYAN *(McGill University)*

10:45 Ludwig ELSNER* *(University of Bielefeld)* and P. van den DRIESSCHE *(University of Victoria)*:
Pairwise comparison matrices and max algebra [A-12]

11:15 Bjarne Kjær ERSBØLL* *(Technical University of Denmark)*, Line CONRADSEN *(Technical University of Denmark)*
and Mia SKETTRUP *(Technical University of Denmark)*: Analysis of 2D-electrophoretic gel data [A-13]

11:45 Alexander E. GUTERMAN *(Moscow State University)*: Determinant preservers for matrices over semirings [A-18]

12:15 Stephen POLLOCK *(University of London)*: Discrete wavelet analysis for dyadic and non-dyadic intervals [A-32]

12:45–14:00 Wednesday, Lunch Break: Campus Treff

14:30–18:00 Wednesday, Afternoon Outing (registration required): Mining Museum Bochum
14:30, Buses pick up delegates and accompanying persons in front of Audimax for outing.
17:30, Buses pick up delegates and accompanying persons at Mining Museum Bochum to bring them to Hövels Brewery.

18:30–Late Wednesday, Beer Test and Workshop Dinner (registration required):
Hövels Brewery: Hoher Wall 5-7, 44137 Dortmund (downtown Dortmund)

Thursday, August 7, 2003

08:50–10:30 Thursday, Contributed Paper Session CC1: Auditorium 7

Chair: Simo PUNTANEN *(University of Tampere)*

08:50 Jerzy K. BAKSALARY *(Zielona Góra University)*, Oskar Maria BAKSALARY* *(Adam Mickiewicz University)*
and Xiaoji LIU *(Xidian University)*: Further results on generalized and hypergeneralized projectors [A-3]

09:15 Ka Lok CHU* *(McGill University)* and George P. H. STYAN *(McGill University)*: On the efficiency of OLS in simple linear
regression, with special reference to the situation when the GLS and OLS regression lines are parallel [A-7]

09:40 Jarkko ISOTALO* *(University of Tampere)* and Simo PUNTANEN *(University of Tampere)*:
On the efficiency of OLS in a partitioned linear model [A-24]

10:05 Michael MASSMANN *(University of Bonn & Lincoln College, University of Oxford)*: A proof of a conjecture
by C.R. Rao, and an application to reduced rank regressions [A-30]

10:30–11:00 Thursday, Morning Coffee Break

11:00–12:30 Thursday, Short Course Session CS1: Auditorium 7

Chair: Adi BEN-ISRAEL *(Rutgers University)*

11:00 George P. H. STYAN* *(McGill University)* and Simo PUNTANEN *(University of Tampere)*: Matrix tricks
for teaching linear statistical models: our personal Top Twenty — PART ONE [A-40]

11:30 Simo PUNTANEN* *(University of Tampere)* and George P. H. STYAN* *(McGill University)*: Matrix tricks
for teaching linear statistical models: our personal Top Twenty — PART TWO [A-36]

12:00 Jerzy K. BAKSALARY *(Zielona Góra University)*: Algebraic background of basic concepts in linear statistical inference [A-2]

12:30–14:00 Thursday, Lunch Break: Campus Treff

14:00–15:30 Thursday, Invited Paper Session CI1, Auditorium 7

Chair: Jerzy K. BAKSALARY *(Zielona Góra University)*

14:00 N. Rao CHAGANTY* *(Old Dominion University)* and Akhil K. VAISH *(Research Triangle Institute)*:
Nonnegative definite solutions to matrix equations with applications to multivariate statistics [A-5]

14:30 Júlia VOLAUFOVÁ *(Pennington Biomedical Research Center LSU, Baton Rouge)*: Comparisons of variance
components tests in two-way heteroscedastic mixed model [A-44]

15:00 Roman ZMYŚLONY *(University of Zielona Góra)*: Testing hypotheses in linear models [A-45]

15:30–16:00 Thursday, Afternoon Coffee Break

16:00–17:40 Thursday, Contributed Paper Session CC2, Auditorium 7

Chair: Júlia VOLAUFOVÁ *(Pennington Biomedical Research Center LSU, Baton Rouge)*

16:00 Mohamed HANAFI* *(ENITIAA-Nantes)* and EL-Mostafa QANNARI *(ENITIAA-Nantes)*: Maximization of a continuum
ratio of two quadratic functions with applications in regression and discrimination analyses [A-20]

16:25 J. A. JOHN *(University of Waikato)*: On the contraction of a resolvable row-column design [A-25]

16:50 Augustyn MARKIEWICZ* *(Agricultural University of Poznań)* and Katarzyna FILIPIAK *(Agricultural University of Poznań)*:
Properties of information matrices for mixed interference model [A-29]

17:15 Czesław STĘPNIAK* *(University of Rzeszów)* and Rafał HABAJ *(University of Rzeszów)*: Characterizing experimental
designs by properties of the standard quadratic forms of observations [A-39]

Friday, August 8, 2003

09:15–10:30 Friday, Contributed Session DC1, Auditorium 7

Chair: Patrick GROENEN *(Erasmus University Rotterdam)*

09:15 Josep FORTIANA* *(Universitat de Barcelona)*, Aurea GRANÉ *(Universitat de Barcelona)* and Eva BOJ del VAL *(Universitat
de Barcelona)*: Distance-based regression for large datasets [A-15]

09:40 Nils LEHMANN *(University Clinics Essen)*: Supersymmetry and random spectra of Wishart matrices [A-28]

10:05 Hans-Peter SCHEFFLER* *(University of Dortmund)* and Mark M. MEERSCHAERT *(University of Nevada, Reno)*:
The sample covariance matrix for multivariate heavy tailed random variables: Limit theorems and statistical applications [A-37]

10:30–11:00 Friday, Morning Coffee Break

11:00–12:40 Friday, Contributed Session DC2: Auditorium 7

Chair: Claus WEIHS *(University of Dortmund)*

11:00 Geert DHAENE* *(K.U. Leuven)*, Erik SCHOKKAERT *K.U. Leuven* and Carine VAN DE VOORDE *(K.U. Leuven)*:
  Best affine unbiased response decomposition [A-8]

11:25 Jerzy K. BAKSALARY *(Zielona Góra University)* and Hilmar G. DRYGAS* *(University of Kassel)*:
  Quadratic sufficiency in the general Gauss-Markov model [A-10]

11:50 Timothy Terence DUNNE *(University of Cape Town)*: Matrix structures for three types of outliers in the general
  linear model [A-11]

12:15 Xiaomi HU *(Wichita State University)*: Data reduction on partial parameters in regression [A-22]

12:40–14:00 Friday, Lunch Break: Campus Treff

14:00–15:30 Friday, Invited Session DI1, Auditorium 7

Chair: Götz TRENKLER *(University of Dortmund)*

14:00 Richard William FAREBROTHER *(University of Manchester)*: On the duality of the L_1 and L_∞ linear estimation
  problems [A-14]

14:30 Patrick J.F. GROENEN* *(Erasmus University Rotterdam)* and Alex KONING *(Erasmus University Rotterdam)*:
  An algorithm for decomposing interactions by generalized bi-additive models for categorical data [A-17]

15:00 George P. H. STYAN* *(McGill University)*, Simo PUNTANEN *(University of Tampere)* and Fuzhen ZHANG *(Nova
  Southeastern University)*: Issai Schur (1875–1941) and the Schur complement: 1917–1968 [A-41]

Papers Presented by Title

I. DMITRIYEVA *(SouthUkrainian PedUniversity)*: The permutative matrices and matrix boundary Riemann problem [A-9]

Armenak S. GASPARYAN *(Program System Institute of RAS, Russia)*: Multidimensional correlation matrices and related
  inequalities [A-16]

Natalia K. PRYKARPATSKA* *(AGH University of Science and Technology of Krakow & Nat. Acad. of Sciences of Lviv)* and
  Anatoliy K. PRYKARPATSKY *(AGH University of Science and Technology of Krakow & Nat. Acad. of Sciences of Lviv)*:
  Symplectic analysis of the dynamical system associated with a stochastic replicator Fisher type model [A-34]