First Southeastern Linear Algebra Conference

Chattanooga, Tennessee: May 27–28, 1994

We are very grateful to Ronald L. Smith for identifying the three remaining persons in the photo published in *Image* 13:10 (see also 14:30): y_1 = Floyd Christian, y_2 = Rohan Hemasinha, y_3 = Ann-Loise Klaus .

Fourth International Workshop on Matrix Methods for Statistics

Montréal, Québec: July 15–16, 1995

Report by George P. H. Styan

The Fourth International Workshop on Matrix Methods for Statistics was held in Montréal on Saturday, July 15 and Sunday, July 16, 1995, the weekend immediately following the Joint Annual Meeting of the Statistical Society of Canada (SSC) and the Institute of Mathematical Statistics (IMS). This Workshop was co-sponsored by the International Linear Algebra Society (ILAS). The International Organizing Committee comprised R. William Farebrother (Univ. of Manchester), Simo Puntanen (Univ. of Tampere), George P. H. Styan (McGill University; chair), and Hans Joachim Werner (Universität Bonn). This Workshop is the fourth in a series. The previous three Workshops were held as follows: (1) Tampere, Finland: August 1990, (2) Auckland, New Zealand: December 1992, and (3) Tartu, Estonia: May 1994. The 5th Workshop in this series is scheduled to held in Shrewsbury, England, July 1996.

The purpose of this Workshop was to stimulate research and, in an informal setting, to foster the interaction of researchers in the interface between matrix theory and statistics. Invited guest speakers came from: Canada, Chile, China, Czech Republic, Finland, Germany, India, The Netherlands, New Zealand, Poland, Portugal, Slovenia, Sweden, Turkey, United Kingdom, and the United States. Funding for non-Canadian guest speakers' travel and local expenses was supported in part by the Natural Sciences and Engineering Research Council of Canada (NSERC). There were 56 papers presented in person (8 plenary and 48 in three parallel sessions) and 5 by title. It is expected that papers from this Fourth International Workshop on Matrix Methods for Statistics will be published in the Sixth Special Issue on Linear Algebra and Statistics of *Linear Algebra and Its Applications.*

The eight plenary talks were:

Anderson* & Stephens: Matrix methods in computation of distributions of goodness-of-fit statistics
Farebrother: A. C. Aitken and the consolidation of matrix theory
Fiedler: Some new results on Hermitian and positive definite matrices
Golub: Method of moments and statistical computations
Mitra* & Prasad: The nonunique parallel sum
Olkin: A. C. Aitken and compound matrices
Rao* & Suryawanshi: Some new ways of dealing with multicollinearity in a regression problem
Thompson: On the von Neumann trace inequality for singular values.

The other 48 talks were:

Ahmed* & Bashirullah: Improved biased estimation in a regression model
Akdeniz: MSE comparisons of some biased estimators in the linear regression model
Ambikkumar* & Drury: Some remarks on the Boyle-Handelman conjecture
Andersson & Perlman*: Lattice conditional independence models for seemingly unrelated regressions
Andersson* & Perlman: Matrix invariance groups for lattice conditional independence models
Bebiano: Bounds for the determinant of matrix sums
Bhimasankaram & Saharay*: On a partitioned linear model and some associated reduced models
Bondar: A partial interlacing theorem for eigenvalues of products and application to MANOVA
Cao-Huu: On computing eigenvalues and eigenvectors of large image matrices for positron emission tomography

Carvalho: A joint estimator for the eigenvalues of the reproduction mean matrix of a multitype Galton-Watson process
Chang* & Paige: New perturbation bounds for the Cholesky factorization
Dutilleul: Maximum likelihood estimation for the matrix normal distribution
Farenick: Convexity with matrix coefficients
Firinguetti Limone: A note on a less than full rank system of seemingly unrelated regression equations model
Flournoy et al: Stationarity in sequential response-driven designs
Fortiana* & Cuadras: A family of matrices, the discretized Brownian bridge and distance-based regression
Groß: On contractions in linear regression
Groß & Trenkler*: On the equality of GLSE and Amemiya's partially generalized least squares estimator
Harville: Use of the Gibbs sampler to invert large, sparse, positive definite matrices
Hodgess* & Wei: Temporal disaggregation of bivariate time series
Horn & Olkin*: When does $A*A = B*B$ and why does one want to know?
Im: Observation contemporaneity and GLS efficiency gain in the context of identical regressors
Kovačec: The conjecture of Marcus and de Oliveira
Kozek: On application of local latent roots in nonparametric regression estimation
Leite: Matrix problems arising in nonlinear control
Liu* & Neudecker: Kantorovich inequalities involving positive semidefinite matrices and efficiency comparisons in linear models
Liu & Neudecker*: Matrix trace Cauchy-Schwarz inequalities and applications in canonical correlation analysis
Markiewicz: Induced Kiefer orderings and comparison of experiments
Merikoski et al: Bounds for eigenvalues using the trace and determinant
Metz: Shorted operators: an application in potential theory
Meyer: Convex analysis and matrix methods in multidimensional scaling
Nordström & Mathew*: Inequalities for sums of matrix quadratic forms
Omladič & Omladič: A linear algebra approach to non-transitive expected utility
Polotski & Shukhman: Point estimation of mean and variance in the correlated time series equations model
Prasad: Rank 1 factors, minus order and shorted matrices
Provost: On the Craig-Sakamoto theorem and its generalisations
Puntanen* & Scott: Some further remarks on the singular linear model
Rosenberger et al: Rates of convergence for the generalized Pólya urn
Searle: The matrix handling of BLUE and BLUP in the mixed linear model.
Šemrl: On a matrix version of Cochran's theorem
Styan & Subak-Sharpe*: The Campbell-Youla generalized inverse and a consequent fundamental property of resistive electrical networks
Sultan* & Tracy: Moments of complex multivariate normal distribution
Tian: Completing block matrices with maximal and minimal ranks
Tong: The role of the covariance matrix in the least-squares estimation for a common mean
von Rosen: A generalized complex normal distribution
Watson: Inequalities associated with the efficiency of least squares: history and comments
Werner* & Yapar: A BLUE decomposition in the general linear regression model
Wolkowicz: Applications of semidefinite programming: linear programming for the 90s and 00s.

In addition five papers were presented by title:
Kollo* & von Rosen: Low-dimensional distributions via high-dimensional distributions
Majumdar: On optimality of duals of optimal block designs
Marsaglia: Generating random matrices
Tian: Reverse order laws for the generalized inverses of multiple matrix products
Wang: Unified theory of least squares and partial ordering of matrices.

Copies of the Programme booklet (with abstracts of all 61 papers in both English and French) are available (free of charge, while supply lasts) from: George P. H. Styan, Dept. of Mathematics and Statistics, McGill University, Burnside Hall, 805 ouest, rue Sherbrooke, Montréal, Québec, Canada H3A 2K6; MT56@MUSICA.MCGILL.CA, FAX (1-514) 398-3899.