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Linear Algebra and its Applications 417 (2006) 1–2

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LINEAR ALGEBRA  
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## Preface

# Preface to the Proceedings of the 13th International Workshop on Matrices and Statistics, Będlewo 2004

The 13th International Workshop on Matrices and Statistics (IWMS-2004) was held at the Mathematical Research and Conference Center (MRCC) of the Institute of Mathematics of the Polish Academy of Sciences in Będlewo (near Poznań), Poland, 18–21 August 2004. The main goal of MRCC is to organize conferences and workshops devoted to various subjects of mathematics, and to create an atmosphere fostering research in groups. MRCC serves as a place for scientific meetings supported and/or accepted by the Banach Center. The setting of MRCC is similar to the mathematical research institute at Oberwolfach, with accommodation on site.

The Organizing Committee of the Workshop composed R. William Farebrother (Shrewsbury, UK), Simo Puntanen (Tampere, Finland; chair), George P.H. Styan (Montréal, Canada; vice-chair), and Hans Joachim Werner (Bonn, Germany) and the Local Organizing Committee was chaired by Augustyn Markiewicz and included Jan Hauke, Tomasz Szulc, and Waldemar Wołyński.

This Workshop (which was endorsed by the International Linear Algebra Society (ILAS)) was organized and supported by

- Stefan Banach International Mathematical Center, Warsaw
- Committee of Mathematics of the Polish Academy of Sciences, Warsaw
- Faculty of Mathematics and Computer Science, Adam Mickiewicz University, Poznań
- Institute of Socio-Economic Geography and Spatial Management, Faculty of Geography and Geology, Adam Mickiewicz University, Poznań
- Department of Mathematical and Statistical Methods, Agricultural University, Poznań

with sponsoring by GlaxoSmithKline, Nokia, and SAS Institute.

The purpose of this Workshop was to stimulate research and, in an informal setting, to foster the interaction of researchers at the interface between statistics and matrix theory.

The Workshop also celebrated the 80th birthday of Ingram Olkin, one of the leading figures in statistics.

The IWMS-2004 was 13th meeting in the ongoing series of Workshops. The previous 12 Workshops were held in

1. Tampere, Finland: August 1990.
2. Auckland, New Zealand: December 1992.
3. Tartu, Estonia: May 1994.
4. Montréal, Quebec, Canada: July 1995.
5. Shrewsbury, England: July 1996.
6. Istanbul, Turkey, August 1997.
7. Fort Lauderdale, Florida, USA, December 1998, in Celebration of T.W. Anderson's 80th Birthday.
8. Tampere, Finland, August 1999.
9. Hyderabad, India, December, 2000 in Celebration of C.R. Rao's 80th Birthday.
10. Voorburg, The Netherlands, August 2001.
11. Lyngby, Denmark, August 2002, in Celebration of G.P.H. Styan's 65th Birthday.
12. Dortmund, Germany, August 2003.

This Special Issue of *Linear Algebra and its Applications* contains selected papers presented at the Workshop. They are mainly devoted to applications of matrix analysis and methods of linear algebra in statistics, in particular in the following statistical problems: designs optimality and efficiency, estimation in linear models, properties of covariance matrices and tests for their equality, time series processes, model selection tests, analysis of microarray data, multivariate analysis, and matrix games. Moreover, some papers included in this issue deal with pure matrix problems related to statistics, i.e. with properties of projectors, matrix orderings, matrix products involving a generalized inverses, and unitarily invariant norms.

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