

## The 15<sup>th</sup> International Workshop on Matrices and Statistics

Report by **Hans Joachim Werner**

The 15<sup>th</sup> International Workshop on Matrices and Statistics (IWMS-2006) was held at Uppsala University (Uppsala, Sweden), on June 13–17, 2006. Uppsala University, in Swedish *Uppsala universitet*, founded in 1477, is the oldest University in Scandinavia. This university, which for centuries has been an important place of science, represented by names such as Linnaeus, Celsius and Ångström, and in the last century by several Nobel Laureates such as Svante Arrhenius (Laureate in Chemistry, 1903), Manne Siegbahn (Laureate in Physics, 1924), his son Kai Siegbahn (Laureate in Physics, 1981), and Theodor Svedberg (Laureate in Chemistry, 1926), was a perfect and exciting place to hold our annual meeting this year.

Our Workshop, which was hosted by the Mathematics and Information Technology Centre at Uppsala University, was supported by the Centre of Biostochastics, the Scandinavian Airline (SAS), the Swedish Research Council, the Swedish Statistical Association, the Swedish Research Council for Environment, Agricultural Sciences & Spatial Planning, SPSS Sweden AB, the Linnaeus Centre for Bioinformatics, the MathWorks, the Tampereen Yliopiston Tukisäätiö, and by John Wiley & Sons, Ltd. It was also endorsed by the International Linear Algebra Society (ILAS).

The Scientific Organizing Committee (SOC) for this workshop consisted of Hans Joachim Werner (Bonn, Germany; chair), R. William Farebrother (Shrewsbury, England), Augustyn Markiewicz (Poznań, Poland), Simo Puntanen (Tampere, Finland), George P. H. Styan (Montréal, Québec, Canada), and Dietrich von Rosen (Uppsala, Sweden). The Local Organizing Committee (LOC) comprised Razaw Al Sarraj (Uppsala), Zhanna Andrushchenko (Uppsala), Johannes Forkman (Uppsala), Kristi Kuljus (Uppsala), Tatjana Nahtman (Tartu, Estonia), Maya Neytcheva (Uppsala), and was chaired by Dietrich von Rosen.

The Workshop included the presentation of both invited and contributed papers. The invited speakers were Theodore W. Anderson (USA), Åke Björck (Sweden), Gene H. Golub (USA), David Harville (USA), Sabine van Huffel (Belgium), Jeffrey J. Hunter (New Zealand), Thomas Mathew (USA), João Tiago Mexia (Portugal), Ingram Olkin (USA), Friedrich Pukelsheim (Germany), Youseff Saad (USA), and Muni Srivastava (Canada). In addition there was a special session in Honour of Dr. Tarmo Pukkila's 60<sup>th</sup> Birthday organized and chaired by Erkki Liski.

The purpose of the workshop was to stimulate research and, in an informal setting, to foster the interaction of researchers in the interface between matrix theory and statistics. Additional emphasis was put on related numerical linear algebra issues and numerical solution methods, relevant to problems arising in statistics. More than 68 participants from 13 different countries joined

this workshop. It is expected that many of the statistically oriented papers presented at this Workshop will be submitted to *Acta et Commentationes Universitatis Tartuensis de Mathematica* while a special issue of the journal *Numerical Linear Algebra with Applications (NLA)* will be devoted to those papers dealing with numerical linear algebra issues and numerical solution methods.

On Friday, June 16, there was an Afternoon Outing to Sigtuna and to the Skokloster Castle. Sigtuna is the earliest, still existing, Swedish town. Although less important today, Sigtuna has an important place in Sweden's early history. About 1000 years ago, it was founded, probably by King Eric Segersäll, on what was then the shore of lake Mälaren. Sigtuna operated as a royal and commercial centre for about 250 years. In the 11<sup>th</sup> century Sigtuna became a diocesan town. Although already 100 years later the archbishop moved to Östra Aros (Uppsala), Sigtuna remained an important city for a while. Many church and monastery ruins still stand, and as the old city structure has not been remodelled, it was a real pleasure to visit Sweden's first town which has it all - beauty, history and exciting tales to tell. A guide brought us on an excellent historical journey, with interesting information on history, tales of the many runic stones and the history of the churches. Later in the afternoon we also visited Skokloster Castle which is located at lake Mälaren between Stockholm and Uppsala. This castle was built in baroque style between 1654 and 1676 by the Field Marshal Carl Gustaf Wrangel (after plans by Nicodemus Tessin the Elder) displaying his power and success during Sweden's Age of Greatness. After Wrangel died in 1676 this castle was owned by the families Brahe and von Essen. In 1967 the Swedish government bought this castle and opened it as a museum. There are rooms where the time has stood still. So the large banqueting hall has never been completed and is still in the same condition as the builders have left it in 1676. During a guided tour through Skokloster Castle we could enjoy the castle's unique interiors containing thousands of exhibits such as weapons, tools, furniture, silver, textiles, books and ethnographic rarities, all extremely gorgeous and remarkable. In the evening of the same day, a delicious Workshop Dinner was served in the garden of Skokloster Castle.

As our previous meeting in Auckland (New Zealand) last year, this Workshop in Uppsala again provided an extremely good atmosphere to stimulate contacts and exchange ideas. The Workshop Programme is still downloadable from the Workshop web page

<http://www.bt.slu.se/iwms2006/iwms06.html>

A group photograph can be found on page 19.



**Group photo (through the camera of Jeffrey J. Hunter) of the 15<sup>th</sup> IWMS Conference**

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### **13<sup>th</sup> ILAS Meeting**

**Report by Andre Ran**

The 13<sup>th</sup> ILAS meeting was held in Amsterdam from July 18 to 21. The meeting was well-attended with 224 registered participants from six different continents. Among the participants were many PhD students, attesting to the fact that the area's future is secure. Despite the unusually hot weather, the participants enjoyed the plenary talks as well as the session talks.

The conference has several highlights, from the start with LAA speaker, Bob Plemmons, via the middle, for instance the LAMA lecturer Steve Kirkland, and to the end with Hans Schneider prize winner Richard Brualdi. But also many of the other plenary and session talks were mentioned by some of the participants as the talk that was for them the high point of the conference. Peter Lancaster, as after dinner speaker, treated the participants to a slide show through the the history of linear algebra, with many pictures from his albums, and his often humorous comments.

The organizers gratefully acknowledge support from several sources. In no particular order these are: the publishing companies Elsevier BV and Taylor and Francis, the two universities in Amsterdam: University of Amsterdam and the Vrije Universiteit Amsterdam, NWO (the Dutch Science Foundation), the Steiltjes Institute, the KNAW (the Royal Academy of Sciences of Netherland), and the Stichting Advancement of Mathematics. The city of Amsterdam welcomed the participants on Tuesday evening in the City Hall with a reception.