

PREFACE

SPECIAL ISSUE OF THE ELECTRONIC JOURNAL OF LINEAR ALGEBRA

on the occasion of

International Conference on Matrix Analysis and Its Applications – MatTriad 2011

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Special editors: Oskar Maria Baksalary, Natália Bebiano, Ljiljana Cvetković, and
Simo Puntanen

The history of MatTriad dates back to 2005 when the first meeting in the series was held at the Mathematical Research and Conference Center in Będlewo, Poland. Since then the conferences with MatTriad logo are organized every second year, of which the 2007 and 2009 editions were held in Będlewo and the 2011 edition for the first time took place outside Poland, namely in Tomar, a charming small city in the center of Portugal.

MatTriad 2011 was co-organized by the Polytechnic Institute of Tomar and by the Faculty of Sciences and Technology (New University of Lisbon) through its Mathematics Department and the Center of Applied Mathematics. The scientific committee consisted of: Tomasz Szulc (Adam Mickiewicz University, Poznań, Poland) fulfilling duties of a chair, João T. Mexia (Faculty of Sciences and Technology, New University of Lisbon, Portugal), Ljiljana Cvetković (University of Novi Sad, Serbia), Heike Faßbender (Technical University Braunschweig, Germany), and Simo Puntanen (University of Tampere, Finland). The organizing committee was chaired by Francisco Carvalho (Polytechnic Institute of Tomar, Portugal) and comprised: Katarzyna Filipiak (Poznań University of Life Sciences, Poland), Miguel Fonseca (Nova University of Lisbon, Portugal), and Paulo C. Rodrigues (Nova University of Lisbon, Portugal and Wageningen University, The Netherlands).

The founding idea standing behind the MatTriad meetings is to bring together researchers sharing an interest in a variety of aspects of matrix analysis and its applications in other branches of mathematics and to give them a possibility to discuss recent developments of the subject. A joint feature of the conferences is the fact that they provide a friendly and supportive forum for young mathematicians to present their results. At each meeting the best presentations delivered by researchers being at the beginning of their academic careers are awarded and the winners have status of invited speakers at the next MatTriad conference. An announcement of the winners of the Young Scientists Awards for the best talks presented by Ph.D. students and young scientists was in Tomar a highlight of the conference dinner. Upon the decision of the scientific committee, the awards of MatTriad 2011 were given to Paulo C. Rodrigues

(Portugal) and Olivia Walch (USA).

While the first MatTriad meeting lasted three days and gathered around 40 participants, the most recent edition covered five days and attracted almost 80 attendants. The conference consisted of three invited lectures, invited plenary talks, and contributed talks. The lectures were delivered by N. Balakrishnan (Canada) – Permanents and Applications, Ali S. Hadi (Egypt) – Applications of Matrix Algebra in Various Fields, and Volker Mehrmann (Germany) – Nonlinear Eigenvalue Problems: Analysis and Numerical Solution. A list of invited speakers included: Natália Bebiano (Portugal), Jeff Hunter (New Zealand), Charles R. Johnson (USA), Juan M. Peña (Spain), and the winners of the MatTriad 2009 Young Scientists Awards: Ricardo Covas (Portugal) and Aneta Sawikowska (Poland). The 67 contributing speakers delivered their talks within special sessions devoted to the following topics: matrix theory, applied and numerical linear algebra, matrix computations, matrices and graphs, matrices and Markov chains, linear algebra in industry and sciences, linear algebra in statistics, and projectors and their applications. A poster session was also organized providing a lively environment to discuss the topics presented.

The present special issue of the Electronic Journal of Linear Algebra contains selected papers strongly correlated to the talks given at MatTriad 2011. These papers went through the normal refereeing procedures and were subject to the usual standards for publication of the journal. The list of attendants of the conference, abstracts of the talks and posters, photo gallery as well as further related information are available at the web page <http://www.mattriad2011.ipt.pt>.

