

Preface

The 18th Conference of IASC-ERS, COMPSTAT'2008, is held in Porto, Portugal, from August 24th to August 29th 2008, locally organised by the Faculty of Economics of the University of Porto.

COMPSTAT is an initiative of the European Regional Section of the International Association for Statistical Computing (IASC-ERS), a section of the International Statistical Institute (ISI). COMPSTAT conferences started in 1974 in Wien; previous editions of COMPSTAT were held in Berlin (2002), Prague (2004) and Rome (2006). It is one of the most prestigious world conferences in Computational Statistics, regularly attracting hundreds of researchers and practitioners, and has gained a reputation as an ideal forum for presenting top quality theoretical and applied work, promoting interdisciplinary research and establishing contacts amongst researchers with common interests. COMPSTAT'2008 is the first edition of COMPSTAT to be hosted by a Portuguese institution.

Keynote lectures are addressed by Peter Hall (Department of Mathematics and Statistics, The University of Melbourne), Heikki Mannila (Department of Computer Science, Faculty of Science, University of Helsinki) and Timo Teräsvirta (School of Economics and Management, University of Aarhus). The conference program includes two tutorials: "Computational Methods in Finance" by James Gentle (Department of Computational and Data Sciences, George Mason University) and "Writing R Packages" by Friedrich Leisch (Institut für Statistik, Ludwig-Maximilians-Universität). Each COMPSTAT meeting is organised with a number of topics highlighted, which lead to Invited Sessions. The Conference program includes also contributed sessions in different topics (both oral communications and posters).

The Conference Scientific Program Committee includes Paula Brito (University of Porto, Portugal), Helena Bacelar-Nicolau (University of Lisbon, Portugal), Vincenzo Esposito-Vinzi (ESSEC, France), Wing Kam Fung (The University of Hong Kong, Hong Kong), Gianfranco Galmacci (University of Perugia, Italy), Erricos Kontoghiorghes (University of Cyprus, Cyprus), Carlo Lauro (University of Naples Federico II, Italy), Alfredo Rizzi (University "La Sapienza", Roma, Italy), Esther Ruiz-Ortega (University Carlos III, Spain), Gilbert Saporta (Conservatoire National des Arts et Métiers, France), Michael Schimek (Medical University of Graz, Austria), Antónia Turkman (University of Lisbon, Portugal), Joe Whittaker (University of Lancaster, UK), Djamel A. Zighed (University Lumière Lyon 2, France) and Edward Wegman (George Mason University, USA), who were responsible for the Conference Scientific Program, and whom the organisers wish to thank for their invaluable cooperation and permanent availability. Special thanks are also

due to Tomas Aluja, Chairperson of the IASC-ERS and Jaromir Antoch, IASC President, for their continuous support and collaboration.

Due to space limitations, the Book of Proceedings includes keynote speakers' papers and invited sessions speakers' papers only, while the CD-Rom, which is part of it, includes all accepted papers, as well as the tutorials' support texts. The chapters of the Book of Proceedings hence correspond to the invited sessions, as follows:

Keynote

Advances on Statistical Computing Environments

Classification and Clustering of Complex Data

Computation for Graphical Models and Bayes Nets

Computational Econometrics

Computational Statistics and Data Mining Methods for Alcohol Studies (Interface session)

Finance and Insurance (ARS session)

Information Retrieval for Text and Images

Knowledge Extraction by Models

Model Selection Algorithms

Models for Latent Class Detection (IFCS session)

Multiple Testing Procedures

Random Search Algorithms

Robust Statistics

Signal Extraction and Filtering

The papers included in this volume present new developments in topics of major interest for statistical computing, constituting a fine collection of methodological and application-oriented papers that characterize the current research in novel, developing areas. Combining new methodological advances with a wide variety of real applications, this volume is certainly of great value for researchers and practitioners of computational statistics alike.

First of all, the organisers of the Conference and the editors would like to thank all authors, both of invited and contributed papers and tutorial texts, for their cooperation and enthusiasm. We are specially grateful to all colleagues who served as reviewers, and whose work was crucial to the scientific quality of these proceedings. We also thank all those who have contributed to the design and production of this Book of Proceedings, Springer Verlag, in particular Dr. Martina Bihn and Irene Barrios-Kezic, for their help concerning all aspects of publication.

The organisers would like to express their gratitude to the Faculty of Economics of the University of Porto, who enthusiastically supported the Conference from the very start, and contributed to its success, and all people there who worked actively for its organisation. We are very grateful to all

our sponsors, for their generous support. Finally, we thank all authors and participants, without whom the conference would not have been possible.

The organisers of COMPSTAT'2008 wish the best success to Gilbert Saporta, Chairman of the 19th edition of COMPSTAT, which will be held in Paris in Summer 2010. See you there!

Porto, August 2008

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