Applications of Mathematics

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Preface [International Workshop "Robust and Nonparametric Inference", Hejnice 2007]

PREFACE

Center of Jaroslav Hájek for Theoretical and Applied Statistics started its work in 2006 with three partner institutions: Masaryk University in Brno (Department of Applied Mathematics–coordinating institution), Technical University in Liberec (Department of Applied Mathematics) and Charles University in Prague (Department of Probability and Mathematical Statistics). The cooperation of these institutions has been much longer, and it led in the past to successful international workshops "Perspectives in Modern Nonparametric Inference" (Prague 1998, Brno 2002, Mikulov 2005) and "Quantile Regression" (Liberec 2001).

On September 1–6, 2007, two institutions of the Center, Liberec and Prague, organized an international workshop "Robust and Nonparametric Inference" in Hejnice. We are happy that, similarly to the previous workshops, outstanding world specialists in mathematical statistics accepted our invitation; the list of titles of their lectures follows. It was a welcome opportunity for young scientists from Belgium, Czech Republic, Germany, Malta, Poland, Sweden and Turkey, more than 20 altogether; some of them presented the results of their theses. The first day of the workshop was devoted to the traditional, already the 4th, Belgian-Czech statistical seminar.

The workshop was held under the auspices of Vojtěch Konopa, Rector of Technical University of Liberec, and brought together 63 participants from 15 countries.

We use this occasion to thank cordially all speakers and participants for their coming and making the program so interesting, and for their contribution to the friendly atmosphere in Hejnice.

The Guest Editors highly appreciate the help of the referees. Namely, we thank Jaromír Antoch, Jan Beran, Tomáš Cipra, Zdeněk Hlávka, Marie Hušková, Daniela Jarušková, Jan Kalina, Jan Kyselý, Zinoviy Landsman, Hannu Oja, and Jan Picek, who kindly read the manuscripts before publication.

The Guest Editors cordially thank Pavel Krejčí, Editor-in-Chief of *Applications of Mathematics*, for giving his approval to dedicate this special issue to the workshop. They also appreciate excellent and friendly cooperation with Helena Holovská, the Executive Editor, and her help with preparing and organizing this issue.

We believe that the readers will follow the papers with interest, and that we shall meet again at one of the next workshops.

The organizers of the workshop highly appreciate the financial support of Technical University of Liberec; of the Center of Jaroslav Hájek for Theoretical and Applied Statistics; of the grant GAČR 201/05/2340; of the RSJ Invest, a.s.; of GTS International; and of the Bureau of Liberec Region.

Jana Jurečková, Jan Kalina, and *Marek Omelka*
as Guest Editors

Jan Picek
as Local Organizer

Robust and Nonparametric Inference
Hejnice, Czech Republic, September 1–6, 2007

Invited talks

Jan Beirlant (Katholieke Universiteit Leuven, Belgium):
 On the Hirsch Index of Publication Activity and Citation Impact

Christophe Croux (Katholieke Universiteit Leuven, Belgium):
 Robust Forecasting with Exponential and Holt-Winters Smoothing

Laurie P. Davies (Universität Essen, Germany):
 Approximation Regions, Regularization and Non-Parametric Regression

Irene Gijbels (Katholieke Universiteit Leuven, Belgium):
 Local Linear Curve Fitting: Smoothing and Jump and Peak Preservation

Marc Hallin (Université Libre de Bruxelles, Belgium):
 Optimal Rank-Based Tests for Homogeneity of Scatter

Abram Kagan (University of Maryland, USA):
 Fine Properties of the Pitman Estimators in Small Samples

Keith Knight (University of Toronto, Canada):
 Local Influence in Quantile Regression

Hira L. Koul (Michigan State University, East Lansing, USA):
 Minimum Distance Inference in Unilateral Lattice Processes

Hannu Oja (University of Tampere, Finland):
 Multivariate Data Analysis Based on Two Location Vectors and Two Scatter Matrices

Davy Pandaveine (Université Libre de Bruxelles, Belgium):
 A New Approach to R-Estimation

Haralabos Pavlopoulos (Athens University of Economics and Business, Greece):
 How Heavy are Probability Tails of Wet and Dry Durations in Regionally Averaged Rain Fields?

Stephen Portnoy (University of Illinois at Urbana-Champaign, USA):
 Fixed vs. Random Censoring: Ignorance is Bliss

Pranab Kumar Sen (University of North Carolina at Chapel Hill, USA):
 Kendall's Tau in High-Dimension Parsimony

Winfried Stute (University of Giessen, Germany):
 Statistical Modeling and Analysis in Marketing Research: A Functional Data Approach

Noël Veraverbeke (Universiteit Hasselt, Belgium):
 Distribution Function Estimation