REPORT

The XXX Conference on Multivariate Statistical Analysis
MSA 2011, 7-9 November 2011, Łódź, Poland

The 30th Anniversary International Conference on **Multivariate Statistical Analysis** took place on November 7th-9th 2011 in **Łódź, Poland**. The organization of the conference was entrusted to **Professor Czesław Domański**, the Chair of **Department of Statistical Methods** in University of Łódź and the President of **Polish Statistical Association**. Multivariate Statistical Analysis Conference 2011 was dedicated to the Professor of mathematics Antoni Łomnicki, Professor of statistics and administrative law Józef Kleczyński and Professor of mathematics and history of science, a methodologist and a champion of science, an eminent teacher Samuel Dickstein.

The conference presented the latest theoretical achievements in the field of the multivariate statistical analysis and its applications. This was a continuation of the issues undertaken on the conferences of the past years. The scientific programme of MSA 2011 covered a wide range of various statistical problems, such as multivariate distributions, statistical tests, non-parametric inference, discrimination analysis, Monte Carlo analysis, Bayesian inference, application of statistical methods for finance, insurance, capital markets and risk management.

The MSA 2011 was opened by the Chairman of the Organizing Committee, **Professor Czesław Domański**. The opening speech also included the University of Łódź Rector, **Professor Włodzimierz Nykiel** and the Dean of the Faculty of Economics and Sociology of the University of Łódź, **Professor Jan Gajda**.

This year Multivariate Statistical Analysis Conference began with the historical session, which was leaded by **Professor Eugeniusz Gatnar** (University of Economics in Katowice). Firstly, **Professor Mirosław Krzyśko** (Adam Mickiewicz University in Poznań) presented Antoni Łomnicki's biography, character and scientific achievements of this great mathematician, and also discussed the main results which Łomnicki gained in the probability theory, mathematical statistics, cartography and teaching of mathematics (in the memory of Antoni Łomnicki on the seventieth anniversary of his death).

As the session was also dedicated to the honoured Józef Kleczyński and Samuel Dickstein, **Professor Czesław Domański** (University of Łódź) presented their profiles and achievements in his speeches.

Also, for this session **Professor Jerzy Kowaleski** (University of Łódź) prepared a speech about life and work of Zbigniew Michałkiewicz. Moreover, a tribute was given to the following scientists, who died in 2010: Wiesław Sadowski (by Władysław Welfe, University of Łódź), Zofia Zarzycka (by Wacława Starzyńska, University of Łódź), Zbigniew Czerwiński (by Grażyna Dehnel, Poznań University of Economics), Wiesław Wagner (by Bronisław Ceranka, Poznań University of Life Sciences) and Piotr Chrzan (by Janusz Wywiał, University of Economics in Katowice)).

Altogether there were nearly 100 participants from various academic and research centres in Poland and abroad. Concerning the papers, 46 papers were presented in 12 sessions.

In addition, on the 8th November a meeting of **The Main Board of Polish Statistical Association** and The Organizing Committee of **The Congress of Polish Statistics** took place.

For the second plenary session (**Professor Janusz Wywiał,** University of Economics in Katowice, was the Chair of this session) the following papers were presented:

- Samaradasa Weerahandi (Pfizer Inc., New York), *Generalized Point Estimation with   Application to Mixed Models*

- Kian-Guan Lim (Singapore Management University), *Statistical Tests of Conditional Shortfalls and Change-Point Estimation in Risk Management*

- Muhammad Aslam (Universite de Bourgogne, Dijon), *Robust Inference for Linear   Regression Model in the Presence of Heteroscedasticity and Multicollinearity*

- Sajjad Haider Bhatti (Universite de Bourgogne, Dijon), *A Panel Data Analysis of the Relationship between GDP per Capita and its Shares of Consumption, Government   Expenditures and Investment*

During the third plenary session (**Professor Walenty Ostasiewicz,** University of Economics in Katowice, was the Chair of this session) the following papers were presented:

- Eugeniusz Gatnar (University of Economics in Katowice), *Central Bank in the system   of official statistics*

- Bronisław Ceranka, Małgorzata Graczyk (Poznań University of Life Sciences),   *Construction of regular E-Optimal weighing design*

- Małgorzata Graczyk (Poznań University of Life Sciences), *Regular A-Optimal spring balance weighing design with correlated errors*

- Tomasz Żądło (University of Economics in Katowice), *On parameter estimation of   some longitudinal model*

The second day of the MSA 2011 Conference was opened by the invited paper of **Professor Stanisława Bartosiewicz** (Wroclaw School of Banking) titled *Some "unkempt" thoughts on the subject of treatise on dynamics, condition and prospects of development of Polish agriculture.* Professor Bartosiewicz proposed the formation of a Treatise on Polish Agriculture, Forestry, Hunting and Fishery in order to commemorate the Centenary of the Polish Statistical Association, which falls in the year 2012. The following problems were pointed out:

- How Polish society benefits from agriculture, hunting, forestry and fishing?

- What is the economic efficiency of Polish agriculture, hunting, forestry and fishery?

- What is the dynamics and the state of Polish agriculture in comparison to other countries?

- Is subjectivity in creating scenarios of development useful in social terms?

Professor Czesław Domański also invited **Professor Mirosław Krzyśko** (Adam Mickiewicz University in Poznań) to present a lecture about *Kernel version of the functional principal components* (prepared by Tomasz Górecki and Mirosław Krzyśko). In this presentation a new construction of functional principal components were proposed, based on principal components for vector data.

Titles of the papers of the next sessions of the MSA Conference, with the authors' names are presented below:

8th November 2011

Session IV. (**Professor Marek Walesiak,** Wroclaw University of Economics, was the Chair of the session)

- Already mentioned two invited papers by Professor Stanisława Bartosiewicz and Professor Mirosław Krzyśko

- Wojciech Zieliński (Warsaw University of Life Sciences – SGGW), *Comparison of confidence intervals for fraction in finite populations*

- Joanna Dębicka (Wroclaw University of Economics), *Matrix approach to analysis of a portfolio of multistate insurance contracts*

Session V. (**Professor Wojciech Zieliński,** Warsaw University of Life Sciences – SGGW, was the Chair of the session)

- Justyna Brzezińska (University of Economics in Katowice), *Model selection methods in log-linear analysis*

- Joanna Kisielińska (Warsaw University of Life Sciences – SGGW), *The exact bootstrap method shown on the example of the mean and variance estimation*

- Wojciech Gamrot (University of Economics in Katowice), *On Fattorini's Estimator*

- Magdalena Chmielińska (University of Economics in Katowice), *The influence on choice of the method of inspection at Total Quality Control cost*

Session VI A. (**Professor Agnieszka Rossa,** University of Łódź, was the Chair of the session)

- Grażyna Dehnel, Elżbieta Gołata (Poznań University of Economics), *The social dimension of demographic processes*

- Dorota Raczkiewicz (Warsaw School of Economics), *Educational, professional and family careers of women in Poland*

- Beata Bieszk-Stolorz, Iwona Markowicz (University of Szczecin), *Men's and women's economic activity in Poland. Interpretation of the logit model with one and many explanatory variables*

- Andrzej Dudek (Wroclaw University of Economics), *Classification of large data sets. Problems, methods, algorithms*

Session VI B   (**Professor Grażyna Trzpiot,** University of Economics in Katowice, was the Chair of the session)

- Jerzy Korzeniewski (University of Łódź), *Assessment of Talavera method of variable   selection in clustering on real world data sets*

- Meral Yay (Mimar Sinan University of Fine Arts), *A Content Analysis of the   Representation of the European Uprising in Turkish News Media*

- Marta Małecka (University of Łódź), *GARCH process application in risk valuation   for WIG20 index*

Session VII A. (**Professor Grzegorz Kończak,** University of Economics in Katowice, was the Chair of the session)

- Janusz Wywiał (University of Economics in Katowice), *On estimation of domain mean*

- Mariusz Kubus (The Opole University of Technology), *On model selection in some regularized linear regression methods*

- Paweł Kobus (Warsaw University of Life Sciences – SGGW), *Application of copulas to modelling joint distribution of crop plants yield and price*

Session VII B. (**Professor Elżbieta Gołata,** Poznań University of Economics, was the Chair of the session)

- Artur Zaborski, Marcin Pełka (Wroclaw University of Economics), *Geometrical presentation of preferences by using PROFIT analysis and R program*

- Marcin Pełka (Wroclaw University of Economics), *Clustering of symbolic data with application of ensemble approach*

- Małgorzata Szerszunowicz (University of Economics in Katowice), *Some construction of factorial designs*

9th November 2011

Session VIII A. (**Professor Bronisław Ceranka,** Poznań University of Life Sciences, was the Chair of the session)

- Aleksandra Baszczyńska (University of Łódź), *Some Remarks on the Symmetry Kernel Test*

- Dorota Pekasiewicz (University of Łódź), *Bayesian statistical tests for fraction for independent and dependent sampling*

- Jacek Stelmach (University of Economics in Katowice), *About the testing of the differences between population with eigenvectors*

- Magdalena Makuch (University of Economics in Katowice), *On cluster sampling strategy*

Session VIII B. (**Professor Janusz Wywiał,** University of Economics in Katowice, was the Chair of the session)

- Małgorzata Misztal (University of Łódź), *Some remarks on the data imputation using „missForest" method*

- Jacek Białek (University of Łódź), *Proposition of the price index*

- Robert Pietrzykowski (Warsaw University of Life Sciences – SGGW), *The application of modified weight matrix defining the spatial interactions*

- Krystyna Pruska (University of Łódź), *Probit and logit models in small area estimation of proportion*

Session IX. (**Professor Krystyna Pruska,** University of Łódź, was the Chair of the session)

- Dorota Rozmus (University of Economics in Katowice), *Comparison of accuracy of spectral clustering and cluster ensembles based on co-occurrence matrix*

- Grzegorz Kończak (University of Economics in Katowice), *On testing directional   hypothesis in the data homogeneity analysis*

- Wioletta Grzenda (Warsaw School of Economics), *The significance of prior information in Bayesian parametric survival models*

The next Multivariate Statistical Analysis Conference aka MSA 2012 is planned on **November 12th-14th, 2012** and will take place in **Lodz**. The Chairman of the Organizing Committee, **Professor Czesław Domański** informs this will be the 31st edition of the Conference and kindly invites all interested scientists, researchers and students to take part in it.

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