REPORT

The XXXI International Conference on Multivariate Statistical Analysis, 12–14 November 2012, Łódź, Poland

The 31st Edition of the International Annual Conference on **Multivariate Statistical Analysis** was held in **Łódź**, **Poland** from 12 to 14 November 2012. The MSA 2012 Conference was organized by the **Department of Statistical Methods** of the University of Łódź and the **Institute of Statistics and Demography** of the University of Łódź, with the cooperation of the **Polish Statistical Association**. The Organizing Committee was led by **Professor Czesław Domański**. The scientific secretaries functions were entrusted to Artur Mikulec, Ph.D. and Aleksandra Kupis-Fijałkowska, M.Sc.

The Multivariate Statistical Analysis MSA 2012 Conference was covered by the honorary patronage of the President of the Central Statistical Office of Poland, **Professor Janusz Witkowski**. Its organization was partially financed by the **National Bank of Poland**. The official partners of the MSA 2012 Conference were **StatSoft Polska Sp. z o.o.** and the **Polish Society of Market and Opinion Researchers - PTBRiO**.

The 2012 Edition, as all Multivariate Statistical Analysis conferences, aimed to create an opportunity for scientists and practitioners of Statistics to present and/or discuss the latest theoretical achievements in the field of the multivariate statistical analysis, its practical aspects and applications. A lot of presented and discussed statistical issues were based on questions identified during previous MSA conferences. The scientific programme covered various statistical problems, including multivariate distributions, statistical tests, non-parametric inference, discrimination analysis, Monte Carlo analysis, Bayesian inference, application of statistical methods for finance, economy, insurance, capital market, risk management, design of experiments and survey sampling methodology, mainly for the social sciences purposes. Briefly, the key statistics of the MSA 2012 Conference look as follows: 77 participants altogether (scientists, statisticians, econometricians, demographers, academic tutors, representatives of the National Bank of Poland and local Statistical Offices), 13 sessions, 44 papers and one invited lecture.

The Conference was opened by the Chairman of the Organizing Committee, **Professor Czesław Domański**. On the Opening session the speakers were, respectively:

> **Professor Antoni Różalski**, Pro-Rector in Charge of Research, who was the representative of the University of Łódź Rector, **Professor Włodzimierz Nykiel**;

> **Professor Paweł Starosta**, the Dean of the Faculty of Economics and Sociology of the University of Łódź;

> **Professor Eugeniusz Gatnar**, Member of the Board of the National Bank of Poland;

> **Professor Włodzimierz Okrasa**, the representative of the President of Central Statistical Office of Poland, **Professor Janusz Witkowski**.

The first session (SESSION I) was led by **Professor Krzysztof Jajuga** (Wrocław University of Economics) and it was started by **Professor Tadeusz Bednarski** (University of Wrocław), who presented his invited lecture on *The statistical paradigm of Jerzy Splawa-Neyman in causality analysis*. This session was dedicated to three eminent Polish scientists: **Professor Mirosław Krzyśko** (The Higher Vocational State School in Kalisz) recalled the work and profile of Karolina Iwaszkiewicz-Gintowt and **Professor Czesław Domański** presented the profiles of Rajmund Buławski and Jan Piekałkiewicz.

The Chair of the session function was conferred respectively to:

SESSION II A	Professor Krystyna Katulska (Adam Mickiewicz University in Poznań);
SESSION II B	Professor Marek Walesiak (Wrocław University of Economics);
SESSION III	Professor Bronisław Ceranka (Poznań University of Life Sciences);
SESSION IV A	Professor Mirosław Krzyśko (the Higher Vocational State School in Kalisz);
SESSION IV B	Professor Grażyna Trzpiot (Wrocław University of Economics);
SESSION V	Professor Alina Jędrzejczak (University of Łódź);
SESSION VI	Professor Eugeniusz Gatnar (The National Bank of Poland, Wrocław University of Economics);
SESSION VII A	Professor Józef Dziechciarz (Wrocław University of Economics);

SESSION VII B Professor Wojciech Zieliński (Warsaw University of Life Sciences);

SESSION VIII A Professor Bronisław Ceranka (Poznań University of Life Sciences);

SESSION VIII B Professor Grażyna Dehnel (Poznań University of Economics);

SESSION IX Professor Grzegorz Kończak (Wrocław University of Economics).

The titles of all further MSA 2012 papers are listed in The Appendix attached below (in the order of the presented papers).

Additionally, on 12 November a meeting of **The Main Board of Polish Statistical Association** took place. The President of the Association, Professor Czesław Domański led the meeting. During the meeting, the Main Board planned the schedule for celebrations regarding The International Year of Statistics 2013 in Poland and discussed celebrations of the **Polish Statistical Association centenary** in 2012.

The MSA 2012 Conference was closed by the Chairman of the Organizing Committee, **Professor Czesław Domański**, who summarized the Conference as very effective and he added that all discussions and doubts should become inspirations and strong motivations for further work of both scientists and practitioners. Professor Domański pointed out that in 2012 Polish and foreign statisticians were celebrating the **100th anniversary of the Polish Statistical Association**, while the next year 2013 will be also an extraordinary one for all statisticians as it is announced to be **The International Year of Statistics**.

The next Multivariate Statistical Analysis Conference **MSA 2013** is planned on **18-20 November 2013** and will take place in **Łódź, Poland**. The Chairman of the Organizing Committee, **Professor Czesław Domański** informs this will be the 32nd edition of the Conference and kindly invites all interested Scientists, Researchers and Students to take part in it.

Prepared by:
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APPENDIX

1. Mirosław Krzyśko (The Higher Vocational State School in Kalisz), *Karolina Iwaszkiewicz-Gintowt (1902-1999). Jerzy Neyman collaborator of Warsaw period.*

2. Czesław Domański (University of Łódź), *Rajmund Buławski.*

3. Czesław Domański (University of Łódź), *Jan Piekałkiewicz.*

4. Grażyna Dehnel (Poznań University of Economics), Tomasz Klimanek (Poznań University of Economics), Jacek Kowalewski (Statistical Office in Poznań), *Indirect estimation accounting for spatial correlation in enterprise statistics.*

5. Tomasz Żądło (University of Economics in Katowice), *On MSE estimation of the misspecified predictor.*

6. Wojciech Gamrot (University of Economics in Katowice), *On some method of strength-borrowing in population total estimation.*

7. Jacek Stelmach (University of Economics in Katowice), *On an estimation of a quantity of base models with parametric and permutation tests.*

8. Daniel Kosiorowski (University of Economics in Cracow), Mateusz Bocian (University of Economics in Cracow), Anna Węgrzynkiewicz (University of Economics in Cracow), Zygmunt Zawadzki (University of Economics in Cracow), *{DepthProc} package in multivariate time series data mining.*

9. Justyna Brzezińska (University of Economics in Katowice), *Odds ratios in the analysis of contingency tables.*

10. Piotr Tarka (Poznań University of Economics), *Measurement scale of the consumers' attitudes in the context of one-parametric Rasch model and dichotomous data.*

11. Katarzyna Dębkowska (Bialystok University of Technology), Marta Jarocka (Bialystok University of Technology), *The impact of the methods of the data normalization on the result of linear ordering.*

12. Włodzimierz Okrasa (The advisor to the President of Central Statistical Office of Poland, Cardinal Stefan Wyszynski University in Warsaw), *Methodological remarks on interaction of methods and data in social statistics – the case of statistical-sociological research.*

13. Alina Jędrzejczak (University of Łódź), *Income inequality and poverty indicators in Poland by family type.*

14. Tadeusz Gerstenkorn (University of Łódź), Jacek Mańko (XXXI High School in Łódź), *Probability of the fuzzy events and its application in some economic problems.*

15. Dariusz Parys (University of Łódź), *Stepwise multiple tests procedure for discrete distributions.*

16. Justyna Wilk (Wrocław University of Economics), Marcin Pełka (Wrocław University of Economics), *Cluster analysis of symbolic data. A review.*

17. Małgorzata Szerszunowicz (University of Economics in Katowice), *Sequence of experimental trials realisation in design of experiment and production process costs.*

18. Marta Małecka (University of Łódź), *Experimental design in evaluating VaR forecasts*

19. Beata Bieszk-Stolorz (University of Szczecin), Iwona Markowicz (University of Szczecin), *Influence of the explanatory variable on the hazard and its changes in time in the Cox regression model.*

20. Jacek Białek (University of Łódź), *Remarks on general price index formulas.*

21. Eugeniusz Gatnar (The National Bank of Poland, University of Economics in Katowice), *Financial inclusion indicators in Poland (central bank perspective).*

22. Grzegorz Kończak (University of Economics in Katowice), *On the use of the extreme value distribution in monitoring processes.*

23. Wojciech Zieliński (Warsaw University of Life Sciences), *An application of the shortest confidence intervals for fraction in controls provided by Supreme Chamber of Control.*

24. Jerzy Korzeniewski (University of Łódź), *Modification of the HINoV method for selection of variables in multiple cluster structures.*

25. Mariusz Kubus (The Opole University of Technology), *Some remarks on feature ranking based wrappers*

26. Artur Zaborski (Wrocław University of Economics), *Gravity unfolding analysis for asymmetric similarities matrix.*

27. Katarzyna Cheba (The West Pomeranian University of Technology, Szczecin), Maja Kiba-Janiak (Wrocław University of Economics), *Conjoint analysis as a method of analysing consumer preferences on the example of a municipal transport market.*

28. Dominik Krężołek (University of Economics in Katowice), *Non-classical risk measures on the WSE – the application of alpha-stable distributions.*

29. Iwona Konarzewska (University of Łódź), *Optimal stock portfolio – application of multivariate statistical analysis.*

30. Joanna Trzęsiok (University of Economics in Katowice), *On some simulative procedures for comparing nonparametric methods of regression.*

31. Michał Trzęsiok (University of Economics in Katowice), *Extracting class description from Support Vector Machines.*

32. Anna Witaszczyk (University of Łódź), *The application of the random matrix theory in the statistical hypothesis testing concerning parameters of the multivariate normal distribution.*

33. Justyna Wilk (Wrocław University of Economics), Michał Bernard Pietrzak (Nicolaus Copernicus University in Toruń), *Internal migration analysis in the context of socio-economic aspects – two-step approach.*

34. Damian Gajda (University of Gdańsk), Tomasz Jurkiewicz (University of Gdańsk), *Attitudes of SMEs towards insurance – survey results for the period 2010-2012.*

35. Anna Maria Jurek (University of Łódź), *Insurance of medical events characteristic and analysis of existing claims.*

36. Katarzyna Bolonek-Lasoń (University of Łódź), Piotr Kosiński (University of Łódź), *Nash equilibria for unconstrained strategies*

37. Dorota Rozmus (University of Economics in Katowice), *Comparison of accuracy of affinity propagation method and cluster ensembles based on co-occurrence matrix.*

38. Czesław Domański (University of Łódź), Katarzyna Bolonek-Lasoń (University of Łódź), *Generalizations of Tukey-lambda distributions*

39. Małgorzata Misztal (University of Łódź), *Some remarks on using graphical methods in missing data analysis.*

40. Dominika Polko (University of Economics in Katowice), Grzegorz Kończak (University of Economics in Katowice), *On time series prediction based on control chart.*

41. Magdalena Chmielińska (University of Economics in Katowice), *On influence of inaccuracy measurement on middle – operating control costs*

42. Grażyna Trzpiot (University of Economics in Katowice), *Bayesian spatial quantile regression.*

43. Bronisław Ceranka (Poznań University of Life Sciences), Małgorzata Graczyk (Poznań University of Life Sciences), *Optimal weighing designs for estimation total weight.*

44. Małgorzata Graczyk (Poznań University of Life Sciences), Bronisław Ceranka (Poznań University of Life Sciences), *Regular d-optimal spring balance weighing designs with diagonal variance matrix of errors.*