



Scientific conference

Methodology of Statistical Research

3-5 July 2019

SCHEDULE

July 3, 2019

8.00 - 9.00	Registration of participants / Welcome coffee	
9.00 - 9.30	WELCOME AND CONFERENCE OPENING Dominik Rozkrut - President of Statistics Poland	
9.30 - 10.30	KEYNOTE SPEECH Graham Kalton Sampling methods for hard-to-survey populations	
10.30 - 10.45	Networking coffee break	
10.45 - 12.15		
Session 1 Mathematical Statistics translated session	Session 2 Data Analysis and Classification	Session 3 Big Data and Statistical Data
Session organizer: Mirosław Krzyśko Chairman: Wojciech Zieliński 1. Roman Zmyślony, Arkadiusz Koziół Simultaneous testing hypotheses in models with blocked compound symmetric covariance structure 2. Małgorzata Bogdan Sorted L – One Penalized Estimation-new regularization method for extracting important information from large data bases 3. Katarzyna Filipiak, Daniel Klein Estimation in multi-level multivariate model	Session organizer: Krzysztof Jajuga 1. Józef Pociecha What the data says - contemporary statistical learning methods in socio-economic investigations 2. Marta Dziechciarz-Duda, Józef Dziechciarz On distance measurement and clustering based on the results of fuzzy measurement. Selected aspects 3. Grazyna Trzpiot, Jacek Szoltysek Friendly cities for seniors - taxonomic analysis for selected Polish cities	Session organizer: Mirosław Szreder 1. Wojciech Roszka Statistical data integration in the study of scientific productivity 2. Jacek Leśkow The role of the governmental institutions in the era of Big Data and AI 3. Czesław Domański, Alina Jędrzejczak Ethical problems in the process of generating Internet-based data 4. Jan Kordos An outline of innovation in official statistics
12.15 - 12.30	Networking coffee break	

12.30 - 14.00

Session 4
Social Statistics
translated session

Session organizer: **Tomasz Panek**
Chairman: **Irena Kotowska**

1. **Jan Zwierzchowski, Tomasz Panek**
Median relative polarization partial indices: investigating income polarization in Poland during the years 2005-2015
2. **Marcin Szymkowiak, Maciej Beręsewicz, Dorota Szalatyś**
Foreigners in the national labour market – a regional approach using the capture-recapture method
3. **Tomasz Klimanek, Marcin Szymkowiak, Tomasz Józefowski**
Non-response in the estimation of disability based on the 2011 Census

Session 5
Statistics in Public Statistics

- Session organizer: **Andrzej Sokołowski**
1. **Barbara Pawełek, Tomasz Sekuła**
Report on the activities of foundations, associations and other social organisations (SOF-1): Comparison of the analysis results of the lack of response in 2014 and 2016
 2. **Alina Bieńkowska**
Methodological descriptions in statistical databases
 3. **Paweł Ulman, Marta Osuch**
The disabled in administrative data and public statistics reporting in Poland
 4. **Marek Sobolewski, Andrzej Sokołowski**
Unjustified usage of coefficient of variance in regional data analysis
 5. **Paweł Ostaszewski, Joanna Klimczak, Justyna Włodarczyk-Madejska**
Polish crime statistics. Sources and applications

Session 6
Regional Statistics

Session organizer: **Tadeusz Borys, Małgorzata Markowska**

1. **Robert Pietrzykowski**
Analysis of convergence of agricultural land prices in Poland
2. **Elżbieta Misiewicz, Ewa Roszkowska, Józef Rogowski**
Evaluation of the level of economic order of Poland's voivodships using two methods: PLS and TOPSIS
3. **Wiesława Gierańczyk**
Labour Market Areas (LMA)
- a functional typology of the labour market areas in Poland
4. **Agata Girul, Edyta Mazurek, Małgorzata Wojtkowiak-Jakacka**
Statistical methods supporting the creation of a profile of economic activity of the disabled

14.00 - 15.30

Lunch

15.30 - 17.00

Session 7
Population Statistics
translated session

Session organizers: **Elżbieta Gołata, Irena Kotowska**
Chairman: **Elżbieta Gołata**

1. **Krzysztof Tymicki, Dorota Holzer-Żelażewska, Krystof Zeman**
Cohort fertility of Polish women: the context of postponement and recuperation
2. **Agata Wnuk, Wiktoria Wróblewska**
Rectangularization of the survival curve – a new perspective on measuring changes in mortality
3. **Paweł Strzelecki**
Surveys on migration in research by the National Bank of Poland

Session 8
Data Analysis and Classification

- Session organizers: **Józef Pociecha**
1. **Andrzej Dudek, Eugeniusz Gatnar, Dominik Rozkrut, Marek Walesiak**
Acquisition of data from the Local Data Bank API in R environment
 2. **Aneta Ptak-Chmielewska**
Comparison of statistical and non-statistical methods for classification of the data – example of enterprises' bankruptcy prediction
 3. **Beata Bieszk-Stolorz, Krzysztof Dmytrów**
Survival trees in the assessment of probability of exit from the registered unemployment

Session 9
Polish Statistics on the International Scene

Session organizers: **Włodzimierz Okrasa**

1. **Marek Cierpial-Wolan, Sebastian Wójcik**
Towards an innovative data integration system in the field of tourism
2. **Czesław Domiński, Włodzimierz Okrasa**
Contribution of the Polish statistical thought to the development of statistics
3. **Dominik Rozkrut**
The role of scientific journals in the internationalization of statistical knowledge

19.00

Gala dinner

July 4, 2019

9.00 - 9.50	KEYNOTE SPEECH Danny Pfeffermann Small Area estimation to correct for measurement errors in big population registers with application to Israel's next census	
9.50 - 10.00	Break	
10.00 - 10.30	PLENARY SESSION Agnieszka Chłoń-Domińczak National Transfer Accounts in Poland: income, consumption and transfers in the lifecourse	
10.30 - 10.45	Networking coffee break	
10.45 - 12.15		
Session 10 Survey Sampling and Small Area Estimation translated session	Session 11 Social Statistics	Session 12 History of Polish Statistics, statistical methods in historical research
<p>Session organizer: Janusz L. Wywiał Chairman: Barbara Kowalczyk</p> <p>1. Jacek Wesołowski Efficient sample allocation in stratified sampling schemes</p> <p>2. Tomasz Żądło On bootstrap for complex sampling designs</p> <p>3. Grażyna Dehnel, Łukasz Wawrowski SAE models in the assessment of monthly wages of small enterprises employees</p>	<p>Session organizer: Tomasz Panek Chairman: Irena Kotowska</p> <p>1. Wojciech Sadłoń Religious statistics in Poland: methodological achievements and challenges</p> <p>2. Przemysław Kurek, Jan Fałkowski, Maja Pieńkos Measuring religiousness – problems, challenges and potential solutions</p> <p>3. Jan Fałkowski, Przemysław Kurek Religiosity and civic engagement</p>	<p>Session organizer: Czesław Domański, Dariusz Chojecki, Wiesław Jan Wysocki</p> <p>1. Czesław Domański The first professors of statistics in Poland</p> <p>2. Cecylia Leszczyńska Polish migration 1870-1938: research methods, scale and structure</p> <p>3. Bożena Łazowska Survey methods applied at Statistics Poland in the interwar period</p>
12.15 - 12.30	Networking coffee break	
12.30 - 14.00		
Session 13 Economic Statistics translated session	Session 14 Big Data and Statistical Data	Sesja 15 Social Statistics

<p>Session organizers: Waldemar Tarczyński, Eugeniusz Gatnar</p> <p>1. Aleksandr Snetkov Organizational approaches to energy statistics in the Republic of Belarus</p> <p>2. Agnieszka Piotrowska-Piątek, Małgorzata Sobieraj Are we able to measure immeasurable? The dispute over the shadow economy</p> <p>3. Katarzyna Brzozowska-Rup, Mariola Chrzanowska Structural equation model in the shadow economy research methodology</p> <p>4. Iwona Markowicz, Paweł Baran Statistical data collected in Intrastat system. A proposal of a data quality index</p> <p>5. Artur Mikulec, Aneta Staszek Microenterprises statistics – development and integration of statistical surveys in the years 2009-2019</p>	<p>Session organizer: Mirosław Szreder</p> <p>1. Jacek Białek, Anna Bobel Methodology for inflation measurement based on scanner data</p> <p>2. Sylwia Filas-Przybył, Tomasz Klimanek, Jacek Kowalewski An assessment of the possibility of using big data to verify the results and improve the method of studying circular migration related to employment and education</p> <p>3. Michał Voss, Maciej Beręsewicz Detection of solar panels based on aerial images using deep learning</p> <p>4. Agnieszka Piórek Use of administrative data sources in statistical surveys of the labour market</p>	<p>Session organizer: Tomasz Panek Chairman: Jan Zwierzchowski</p> <p>1. Tomasz Piasecki, Anna Szukiełojć-Bieńkuńska Subjective poverty lines – methodological proposals dedicated to the use of data from the EU-SILC survey</p> <p>2. Maria Penpeska, Dorota Kawiorska, Małgorzata Żyra Methodology of the System of Health Accounts</p> <p>3. Aleksandra Skrabacz, Magdalena Baran-Wojtachnio Statistical research among the professional salvors and employees in the response of national defense</p>
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14.00 - 15.30

Lunch

15.00 - 15.30**POSTER SESSION****1. Konrad Furmańczyk, Marcin Dudziński**

New tests for a random walk detection based on the arcsine laws

2. Damian Jelito, Marcin Pitera

Normality test based on the conditional second moments

3. Piotr Sulewski

Recognizing distributions rather than goodness-of-fit testing

15.30 - 17.00**Session 16****Survey Sampling and Small Area Estimation**
translated sessionSession organizer: **Janusz L. Wywiął**
Chairman: **Tomasz Żądło****1. Barbara Kowalczyk, Dorota Juszczak**
Selected problems of repeated surveys**2. Wojciech Gamrot**
A stopping rule for simulation-based Horvitz-Thompson estimator**3. Tomasz Stachurski**
A few remarks on synthetic regression median estimator**4. Janusz L. Wywiął, Grzegorz Sitek**
On influence of clustering population on accuracy of total estimation**Session 17****Population Statistics**Session organizer: **Józefina Hrynkiewicz**
State registers: the possibility of using register data in demography statistics and analyses**1. Beata Stępińska**
Population registers**2. Piotr Gajewski**
State data systems**3. Maciej Kawecki**
Data management**4. Marek Morze**
The possibility of using administrative data in population statistics**Session 18****Big Data and Statistical Data**Session organizer: **Mirosław Szreder****1. Mirosław Szreder**

Statistical significance in the era of Big Data

2. Katarzyna Kopczewska

Spatial bootstrapped microeconometrics: forecasting for out-of-sample geolocations in Big Data

3. Krzysztof Najman, Kamila Migdał-Najman

Incremental algorithms in cluster analysis

4. Małgorzata Mleczko, Przemysław Slesiński, Marek Mróz, Marek Morze

The use of Sentinel-1/2 satellite data in agriculture statistics

17.00 - 17.15

Networking coffee break

17.15 - 18.45**Session 19****Data Analysis and Classification**
translated sessionSession organizers: **Józef Pociecha, Krzysztof Jajuga, Marek Walesiak**
Chairman: **Józef Dziechciarz****1. Ieva Burakauskaite**
Use of the R project in outlier detection**2. Sławomir Nowotny, Łukasz Prażmo, Przemysław Śleszyński**
The geography of Polish religiosity – spacial determinants of religious behavior**3. Mirosława Kaczmarek**
Exclusion of the Baby Boomers generation from the e-commerce market. Poland against the background of the European Union countries**4. Andrzej Dudek, Elżbieta Stańczyk**
Classification trees and their efficiency in analysis of small and medium enterprises success**Session 20****Population Statistics**Session organizers: **Elżbieta Gołata, Irena Kotowska**
Chairman: **Irena Kotowska****1. Wioletta Grzenda**

Evaluation of the statistical significance of the differences in the impact of key factors on waiting times for first and second births using Bayesian methods

2. Stanisław Rafalski, Anita Abramowska-Kmon

Modelling of old-age mortality in Poland – an alternative approach

3. Jan Paradyż

Integrated systems of population reproduction analysis

4. Klaudia Peszat, Tomasz Zegar,**Magdalena Cybulska, Gabriela Nowakowska, Dorota Szałtys**
Young adults living with their parents in Poland**Session 21****Mathematical Statistics**Session organizers: **Mirosław Krzyśko**
Chairman: **Małgorzata Bogdan****1. Tomasz Górecki, Mirosław Krzyśko, Waldemar Wołyński**

Measuring and testing mutual dependence for functional data

2. Wojciech Zieliński

Confidence interval for the difference of two Binomial proportions

3. Grzegorz Wyłupek

Data-driven Kaplan-Meier one-sided two-sample tests

July 5, 2019

9.00 - 10.30	PLENARY SESSION 1. Dominik Rozkrut Public sector innovation in Poland: towards measurement framework 2. Włodzimierz Okrasa From Regional Convergence to Community Cohesion: Contribution of spatial statistics to the development policy analysis 3. Andrzej Sokołowski Composite Indicators - History and Present
10.30 - 10.45	Networking coffee break
10.45 - 12.15	
Session 22 Regional Statistics translated session	Session 23 Economic Statistics
Session organizers: Tadeusz Borys, Małgorzata Markowska 1. Katarzyna Cheba, Iwona Bąk European Innovation Scoreboard and its regional dimension - taxonomic analysis 2. Jarosław Lira, Lucyna Przezbórska-Skobiej Tourist resources of rural areas as a factor of agrotourism development (Relative typological classification of districts of the Wielkopolska region) 3. Romana Główicka-Wołoszyn, Joanna Stanisławska, Andrzej Wołoszyn Methods of classical and relative taxonomy in multidimensional dynamic assessment of housing conditions of the Wielkopolska province urban and rural population 4. Katarzyna Widera, Danuta Michoń Spatial analysis of the gmin potential opolskie voivodship in the years 2000 – 2017	Session organizers: Waldemar Tarczyński, Eugeniusz Gatnar 1. Aleksandra Hańska, Agnieszka Leszczyńska-Paczesna Price convergence in the European Union 2. Łukasz Goczek Total Factor Productivity of Polish Firms 3. Maciej Beręsewicz, Dagmara Nikulin Estimation of the size of informal employment based on administrative records with non-ignorable selection mechanism 4. Magdalena Mądra-Sawicka, Mirosław Błażej The role of specialized segments of the financial market in financing the real sphere of economy
Session organizers: Czesław Domański, Dariusz Chojecki, Wiesław Jan Wysocki 1. Radosław Poniat The economic inequalities in the Polish-Lithuanian Commonwealth: research potential and the first results 2. Lucyna Błażejczyk-Majka Application of cluster analysis in historical studies on crafts in the Wielkopolska region based on data from the 1810 census 3. Dariusz K. Chojecki Demographic balance in the Polish western territories before and after World War I according to John Webbers' (modified) typology. Continuation or discontinuation of changes?	
12.15 - 12.30	Networking coffee break

12.30 - 14.00

Session 25

Statistics in Public Statistics
Regional Statistics
translated session

Session 26

Mathematical Statistics

Session 27

Statistics Communication
and Statistical Education

Session organizers: **Andrzej Sokołowski,**
Małgorzata Markowska

1. **Beata Bal-Domańska**
Assessment of the unemployment problem across powiats on the basis of an extended measure of unemployment
2. **Dominika Rogalińska,**
Marek Pieniążek
Applicability Aspects of Data Streams Shaping. The case of spatial statistics
3. **Marek Cierpial-Wolan,**
Jarosław Napora
The potential of the labor market in border regions - data integration and disaggregation
4. **Dorota Ciołek**
Disaggregation of gross domestic product to the level of powiats

Session organizers: **Mirosław Krzyśko**
Chairman: **Tomasz Górecki**

1. **Łukasz Smaga, Jin-Ting Zhang**
Linear hypothesis testing for weighted functional data with application
2. **Janusz L. Wywiął, Grzegorz Sitek**
On the variance of a sample matrix eigenvalue
3. **Marek Męczarski**
On a statistical problem in actuarial mathematics: estimation of the adjustment coefficient

Session organizers: **Dominik Rozkrut**

1. **Bohdan Wyżnikiewicz**
Price of truth in statistics
2. **Tadeusz Kufel, Dominik Rozkrut**
The world of open statistical data – STATPOL in the DB.NOMICS.WORLD database
3. **Iwona Foryś**
Methodological barriers to determining real estate price indices in Poland
4. **Michał Bis, Ewelina Niewiadomska**
Innovative methods and Big Data tools used for streamlining the statistical production process
5. **Emilia Andrzejczak, Karolina Dawidziuk**
Statistical awareness-building through education

14.00 - 15.00

Lunch

15.00 - 16.00

KEYNOTE SPEECH
Danny Pfeffermann

Challenges in the production of official statistics with different methods of data collection

16.00 - 16.15

FINAL CONCLUSIONS AND CLOSING

Dominik Rozkrut - President of Statistics Poland

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