Conference Mathematical Methods in Economics 2014

Plenary session

September 10, 2014, room 2.001 (second floor)

The plenary session will be also streamed to the room 2.005.

7:30–9:00	Registration of participants (second floor)
9:00–9:15	Opening ceremony
	Chair Jana Talašová
9:15–10:00	Jaroslav Ramík Pairwise Comparison Matrix With Fuzzy Elements
10:00–10:45	Michele Fedrizzi Pareto efficient weights from pairwise comparison matrices and norm–induced distances
10:45–11:15	Coffee break

Conference Mathematical Methods in Economics 2014
Session A

September 10, 2014, room 2.001 (second floor)

	Chair Ondřej Pavlačka
11:15–11:35	Radomír Perzina and Jaroslav Ramík Solving Multicriteria Decision Making Problems using Microsoft Excel
11:35–11:55	Markéta Matulová A New Measure of Consistency of Additive Preference Matrix in Pairwise Comparisons
11:55–12:15	Věra Jandová, Jan Stoklasa and Jana Talašová Modification of the AHP based model for evaluating artistic production of Czech colleges
12:15–12:35	Pavel Holeček and Jana Talašová Multiple-Criteria Fuzzy Evaluation in FuzzME – Transitions Between Different Aggregation Operators
12:35–14:00	Lunch (Menza Šmeralova)
	Chair Milan Vlach
14:00–14:20	Mikuláš Luptáčik Data Envelopment Analysis for Measuring Economic Growth in Terms of Welfare
14:20–14:40	Milan Vlach Approximation operators in covering-based approach to rough sets
14:40–15:00	Ondřej Pavlačka and Pavla Melicheríková Probability of Fuzzy Events
15:00–15:20	Josef Jablonský Multiplicative efficiency and cross-efficiency: a comparative study
15:20–15:45	Coffee break
	Chair Josef Jablonský
15:45–16:05	Zuzana Kiszová Multicriteria evaluation of employees – case study
16:05–16:25	Robert Hlavatý Saaty's matrix revisited: Securing the consistency of pairwise comparisons
16:25–16:45	Jiří Mazurek An Alternative Approach to Interval AHP
18:00–19:00	Meeting of the Czech Society for Operations Research
19:00–21:00	Welcome evening

Conference Mathematical Methods in Economics 2014

Session A

September 11, 2014, room 2.001 (second floor)

8:00–9:00	Registration of participants (second floor)
	Chair Jan Stoklasa
9:00–9:20	Jan Stoklasa, Pasi Luukka and Jana Talašová Classifier performance assessment in social science - does the quality of data matter?
9:20–9:40	Zuzana Dlouhá and Martin Dlouhý Factors of dissatisfaction with chosen study programme
9:40–10:00	Tommaso Lando and Lucio Bertoli-Barsotti New tools for complementing the h-index: an empirical study
10:20–10:40	Coffee break
	Chair Yuri Lawryshyn
10:40–11:00	Yuri Lawryshyn and Michael Vinelli A Comprehensive Discounted Cash-Flow Analysis Using Real Options
11:00–11:20	Maria Kobzareva and Jan Pelikán Fuzzy approach for portfolio selection problem
11:20–11:40	Tomasz Nawrocki and Izabela Jonek-Kowalska The use of fuzzy logic in the enterprises operating risk assessment on the example of coal mining companies listed on the Warsaw Stock Exchange
12:00–13:30	Lunch (Menza Šmeralova)
14:00–18:00	Conference trip
19:00–22:00	Conference dinner

Conference Mathematical Methods in Economics 2014

Session A

September 12, 2014, room 2.001 (second floor)

8:00–9:00	Registration of participants (second floor)
	Chair Vladimír Mlynarovič
9:00–9:20	Ladislav Beránek A Belief Theoretic Approach to Finding a True Value from Recommendations in E-business
9:20–9:40	Eduard Hozlár and Vladimír Mlynarovič Multiple Criteria Approaches in Insurance Fraud and Receivables Nonpayment Risk Modeling
9:40–10:00	Monika Molnárová Robustness of Monge matrices in fuzzy algebra
10:00–10:20	Helena Myšková Interval Max-drast Systems of Linear Equations
10:20–10:40	Coffee break
	Chair Edward Kasem
10:40–11:00	Edward Kasem, Oldřich Trenz and Jiří Hřebíček Statistical Method and Neural Network for Sustainability Evaluation
11:00–11:20	Michal Kvasnička Search for the optimal strategy to spread a viral video: An agent-based model optimized with genetic algorithms
11:20–11:40	Bronislav Chramcov and Robert Bucki Decision Making Support of Logistics Tasks in the Manufacturing System
11:40–12:00	Elena Mielcová Application of an Asymmetric Banzhaf Power index: The Case of the Czech Parliament
12:00–13:30	Lunch (Menza Šmeralova)
	Chair Ondřej Pavlačka
13:30–13:50	Pavla Melicheríková A Cost-based Model for Support of Decision-making about a Spare-parts Storage
13:50–14:10	Renata Klufová and Michael Rost Is it possible to use multi-criteria criteria decision making methods for rural typology?
14:10–14:30	Jan Manďák Efficiency of 15 EU countries and the role of ICT: a stochastic frontier analysis approach
14:30–14:50	Ladislava Issever Grochová, Jitka Janová, David Hampel and Luboš Střelec Alternative approach of assessing European countries efficiency from the perspective of sustainable economic performance

Conference Mathematical Methods in Economics 2014

Session B

September 10, 2014, room 2.005 (second floor)

	Chair Michal Dorda
11:15–11:35	Michal Dorda and Dušan Teichmann M/En/1/m queueing system subject to catastrophes
11:35–11:55	Anastasiya Fesenko The real use of operations research methods in conjunction with logistics technologies
11:55–12:15	Karel Sladký The Variance of Discounted Rewards in Markov Decision Processes: Laurent Expansion and Sensitive Optimality
12:35–14:00	Lunch (Menza Šmeralova)
	Chair Petr Fiala
14:00–14:20	Petr Fiala Models of Coordination Games
14:20–14:40	Milan Horniaček Strong Nash general equilibrium
14:40–15:00	Anna Sroczyńska-Baron The analysis of the limit of obligatory offer for chosen sectors in Poland with the use of cooperative games
15:20–15:45	Coffee break
	Chair Petra Dotlačilová
15:45–16:05	Petra Dotlačilová, Ondřej Šimpach and Jitka Langhamrová The use of polynomial functions for modelling of mortality at the advanced ages
16:05–16:25	Jana Langhamrová and Markéta Arltová Life Expectancy and Modal Age at Death in the Czech Republic in 1920-2012
16:25–16:45	Martina Kuncová and Jana Sekničková Analysis of the efficiency of the electricity supplier selection depending upon the price changes
16:45–17:05	Jana Sekničková and Martina Kuncová Evaluation of the locality influence on the electricity supplier selection
18:00–19:00	Meeting of the Czech Society for Operations Research
19:00–21:00	Welcome evening

Conference Mathematical Methods in Economics 2014

Session B

September 11, 2014, room 2.005 (second floor)

8:00–9:00	Registration of participants (second floor)	
	Chair Milan Vlach	**Ph.D. Student Competition**
9:00–9:20	Milan Bouda Macroprudential experiment using the DSGE model of the Czech Republic with Housing sector	
9:20–9:40	Jana Krejčí Fuzzy Maximal Eigenvalues of Fuzzy Pairwise Comparison Matrices	
9:40–10:00	Radek Hendrych Recursive Estimators of GARCH Models: Selected Problems	
10:00–10:20	Petra Matušková Estimating capital requirement according to Solvency II and its impact on insurance companies	
10:20–10:40	Karel Lavička Futures Trading with Transaction Costs	
10:40–11:00	František Zapletal Mean-risk model optimizing the heavy industrial company's profit with respect to environmental aspects	
12:00–13:30	Lunch (Menza Šmeralova)	
14:00–18:00	Conference trip	
19:00–22:00	Conference dinner	

Conference Mathematical Methods in Economics 2014

Session B

September 12, 2014, room 2.005 (second floor)

8:00–9:00	Registration of participants (second floor)
	Chair Tomáš Šubrt
9:00–9:20	Tomáš Talášek, Jana Talašová, Eva Bohanesová and Jan Stoklasa Investment decision making using fuzzy scorecards - mutual funds selection
9:20–9:40	Helena Brožová, Tomáš Šubrt and Jan Bartoška Fuzzy Approach to Risk Appetite in Project Management
9:40–10:00	Petr Kučera, Jan Bartoška and Tomáš Šubrt. Mathematical models of the work contour in project management
10:00–10:20	Iveta Bebčáková and Pavla Kouřilová Social choice function and multiple criteria group decision making
10:20–10:40	Coffee break
	Chair Jan Gorecki
10:40–11:00	Jan Górecki, Marius Hofert and Martin Holeňa The consistency of estimators for hierarchical Archimedean copulas estimation
11:00–11:20	Stanisław Wanat, Monika Papież and Sławomir Śmiech The conditional dependence structure between precious metals: a copula-GARCH approach
11:20–11:40	Michal Houda A note on the use of copulas in chance-constrained programming
11:40–12:00	Monika Papież A dynamic analysis of causality between prices of corn, crude oil and ethanol
12:00–13:30	Lunch (Menza Šmeralova)

Conference Mathematical Methods in Economics 2014

Session C

September 10, 2014, room 3.003 (third floor)

	Chair Petr Volf
11:15–11:35	Petr Volf On Bayes approach to optimization
11:35–11:55	Jan Černý, Anna Černá and Štefan Peško Modification of the Method PRIVOL for Optimal Routing and Frequencing
11:55–12:15	Jan Pelikán Randomized heuristics for capacitated arc routing problem
12:35–14:00	Lunch (Menza Šmeralova)
	Chair Jaroslav Janáček
14:00–14:20	Jaroslav Janáček and Marek Kvet Lexicographic Optimal Public Service System Design
14:20–14:40	Marek Kvet and Jaroslav Janáček Price of Fairness in Public Service System Design
14:40–15:00	Matej Cebecauer Generating Data Model for the Public Service System Design from the OpenStreetMap: Network and the Shortest Paths
15:00–15:20	Tomáš Majer Designing a Fair Public Urban Transport System
15:20–15:45	Coffee break
	Chair Juraj Pekár
15:45–16:05	Zuzana Čičková, Ivan Brezina and Juraj Pekár Open vehicle routing problem
16:05–16:25	Zuzana Čičková, Marian Reiff and Kvetoslava Surmanová Split Delivery Vehicle Routing Problem with Time Windows
16:25–16:45	Jan Melechovský A Variable Neighborhood Search for the Capacitated Arc Routing Problem with Time Windows
16:45–17:05	Pavel Kolman Dynamic transportation problem with partial limitations of material for each participant of the transport
18:00–19:00	Meeting of the Czech Society for Operations Research
19:00–21:00	Welcome evening

Conference Mathematical Methods in Economics 2014

Session C

September 11, 2014, room 3.003 (third floor)

8:00–9:00	Registration of participants (second floor)
	Chair Martina Kuncová
9:00–9:20	Jan Voráček, Hana Vojáčková, Martina Kuncová and David Zažímal Modeling, Optimization and Visualization of Hospital Emergency Department
9:20–9:40	Štefan Peško and Roman Hajtmanek Matrix permutation problem for fair workload distribution
9:40–10:00	František Koblasa and František Manlig Application of Adaptive Evolution Algorithm on real-world Flexible Job Shop Scheduling Problems
10:00–10:20	Angelina Rajda Inference about product reliability by the analysis of complaints as a strategy for manufacturing process optimization
10:20–10:40	Coffee break
	Chair Karel Zimmermann
10:40–11:00	Stanislav Palúch and Ivana Urbaničová A Heuristic Approach to the p-Median Problem Using a Set Covering Formulation
11:00–11:20	Nikola Kaspříková Finding Optimal Variable Weights for Distance Calculation Using Metaheuristic Algorithms
11:20–11:40	Karel Zimmermann Machine Time Scheduling Problems with Extremally Separable Functions
12:00–13:30	Lunch (Menza Šmeralova)
14:00–18:00	Conference trip
19:00–22:00	Conference dinner

Conference Mathematical Methods in Economics 2014

Session C

September 12, 2014, room 3.003 (third floor)

8:00–9:00	Registration of participants (second floor)
	Chair Jan Černý
9:00–9:20	Anna Černá, Jan Černý and Jaroslav Matuška Optimal Scheduling of Vehicles for Wheelchair Users
9:20–9:40	Vojtěch Graf and Dušan Teichmann Timetable Optimization for Charter Air Transport Company
9:40–10:00	Michal Koháni Heuristic Approach to the Zone Partitioning Problem in Counting Zones Tariff System
10:00–10:20	Jana Kramulová, Josef Jablonský and Jan Zeman Application of optimisation models in visualisation of regional data
10:20–10:40	Coffee break
	Chair Jiří Hřebíček
10:40–11:00	Petr Kozel and Šárka Michalcová The using of linear programming for solving the municipal waste collection problem
11:00–11:20	Jana Soukopová, Jiří Kalina and Jiří Hřebíček Mathematical and economic model of municipal waste management using Maple
11:20–11:40	Jiří Hřebíček, Oldřich Trenz, Zuzana Chvátalová and Jana Soukopová Evaluation of corporate performance using data envelopment analysis with Maple
11:40–12:00	Zuzana Chvátalová, Jiří Hřebíček and Hana Zaoralová Optimization of Logistics in Service Company for Sustainability Performance
12:00–13:30	Lunch (Menza Šmeralova)
	Chair Vlasta Kaňková
13:30–13:50	Vlasta Kaňková Multiobjective Stochastic Optimization Problems with Probability Constraints
13:50–14:10	Kirill Odintsov SDP application on portfolio optimization problem with non-convex quadratic constraints
14:10–14:30	Emília Draženská On the Crossig number of Cartesian Products

Conference Mathematical Methods in Economics 2014
Session D

September 10, 2014, room 3.005 (third floor)

	Chair Jiří Hofman
11:15–11:35	Vlastimil Reichel and Miroslav Hloušek RBC model vs. New Keynesian model: time series analysis of Czech data
11:35–11:55	Václav Adamec Effects of Interventions and Outliers on Mean Function and Volatility in Currency Exchange Rates
11:55–12:15	Jiří Hofman and Ladislav Lukáš Markov chain model used for sensitivity analysis of paid/unpaid claims in after-payment-due process
12:35–14:00	Lunch (Menza Šmeralova)
	Chair Daniel Němec
14:00–14:20	Klára Hrůzová, Karel Hron and Valentin Todorov Compositional orthogonal regression of the resource efficiency in manufacturing
14:20–14:40	Kamila Fačevicová, Valentin Todorov and Karel Hron Compositional tables analysis with application to manufacturing
14:40–15:00	Daniel Němec Efficiency of the European labour markets: The Case of Czech Republic (A Stochastic frontier model approach)
15:00–15:20	Maciej Kostrzewski, Sławomir Śmiech, Monika Papież and Marek Dąbrowski Commodity prices and real and financial processes in the Euro area: a Bayesian SVAR approach
15:20–15:45	Coffee break
	Chair Jan Kalina
15:45–16:05	Jacek Stelmach On the use of genetic algorithms in the selection of predictors of parametric regression models
16:05–16:25	Jan Kalina and Katarína Vlčková Robust regularized cluster analysis for high-dimensional data
16:25–16:45	Małgorzata Szerszunowicz On the use of the balanced half-samples method in the construction of factorial designs
16:45–17:05	Stanislav Sopko and Nataliya Soldatyuk Using cluster analysis techniques based on K-means and Kohonen clustering methods in credit scoring
18:00–19:00	Meeting of the Czech Society for Operations Research
19:00–21:00	Welcome evening

Conference Mathematical Methods in Economics 2014

Session D

September 11, 2014, room 3.005 (third floor)

8:00–9:00	Registration of participants (second floor)
	Chair Michal Černý
9:00–9:20	Aleksandra Baszczyńska and Dorota Pekasiewicz Statistical inference about modality of random variable
9:20–9:40	Michal Černý Interval data and sample variance: computational issues
9:40–10:00	Jitka Bartošová and Vladislav Bína The measure of separation of components in final mixtures of probability densities
10:00–10:20	Malgorzata K. Krzciuk On the design accuracy of Royall's predictor of domain total for longitudinal data
10:20–10:40	Coffee break
	Chair Jan Kodera
10:40–11:00	Marta Malecka Multivariate approach to testing VaR models
11:00–11:20	Jan Kodera and Quang Van Tran Evaluation of the effects of inflation targeting policy by a modified VAR model
11:20–11:40	Jan Brůha A Comparison of Bayesian Methods for Estimating of Multivariate Models with Censored Data
11:40–12:00	Přemysl Bejda Geometric median, its applications and generalizations
12:00–13:30	Lunch (Menza Šmeralova)
14:00–18:00	Conference trip
19:00–22:00	Conference dinner

Conference Mathematical Methods in Economics 2014
Session D

September 12, 2014, room 3.005 (third floor)

8:00–9:00	Registration of participants (second floor)
	Chair Kamila Hasilová
9:40–10:00	Richard Horský Random Walk Process And Its Invertibility
10:00–10:20	Kamila Hasilová Iterative Bandwidth Selection in Kernel Discriminant Analysis
10:20–10:40	Coffee break
	Chair Pavel Pražák
10:40–11:00	Michaela Staníčková and Lukáš Melecký Examination of Internal Relations in Input-Output Factors of Competitiveness by SEM Method
11:00–11:20	Pavel Pražák Optimal Control Model of Production-Inventory System
11:20–11:40	Michal Řičař Factor and Principal Component Analysis in Scoring Modeling using SAS® System
12:00–13:30	Lunch (Menza Šmeralova)
	Chair Radim Dolák
13:30–13:50	Radim Dolák, Jan Górecki, Lukáš Slechan and Michael Kubát Categorical data analysis from Lean Company research
13:50–14:10	Magdalena Chmielińska The cost of acceptance sampling in case of alternative qualifications of products due to many features
14:10–14:30	Lenka Gladavská, Lenka Králová and Miroslav Plevný A production line inventory control model with an unbalanced output of the individual production facilities and with respect to other limitations

Conference Mathematical Methods in Economics 2014
Session E

September 10, 2014, room 5.006 (fifth floor)

	Chair Ondřej Čížek
11:15–11:35	Ondřej Čížek Forecasting Unemployment in the Eurozone
11:35–11:55	Zuzana Palová and Milena Botlíková Correlation analysis of regional disparities – the unemployment rate and crime regions of the Czech Republic
11:55–12:15	Silvie Bělašková and Eva Fišerová Detection of Influential Factors on Unemployment Duration of University of Tomas Bata Graduates by the Hazard Model
12:15–12:35	Šárka Horáková and Robert Jahoda Decomposition of fiscal imbalance in EU member countries
12:35–14:00	Lunch (Menza Šmeralova)
	Chair Václava Pánková
14:00–14:20	Vladimír Přibyl and Jan Černý Delay Management in Public transport
14:20–14:40	Vítězslav Píša and Jan Brůha A microeconometric analysis of household expenditures on transport services in the Czech Republic
14:40–15:00	Václava Pánková Capital mobility measurements
15:00–15:20	Dušan Teichmann, Michal Dorda, Jakub Vítek and Vladimír Smrž Modelling Destination Portfolio for International Regional Airport
15:20–15:45	Coffee break
	Chair Vladimír Hajko
15:45–16:05	Ladislava Issever Grochová and Petr Rozmahel Some methodological limitations of business cycle analysis within the European area
16:05–16:25	Lucie Zotyková and Jiří Mazurek On a Gravity Equation of Trade: A Case of Germany and the Czech Republic
16:25–16:45	Vladimír Hajko, Naďa Birčiakova and Jana Stávková The trends in the income distributions in the EU-27 countries: Measuring the differences
16:45–17:05	Jaroslav Schulz, Štěpán Mikula Minimum wage setting mechanism and its effects
18:00–19:00	Meeting of the Czech Society for Operations Research
19:00–21:00	Welcome evening

Conference Mathematical Methods in Economics 2014

Session E

September 11, 2014, room 5.006 (fifth floor)

8:00–9:00	Registration of participants (second floor)
	Chair Jaroslava Pražáková
9:00–9:20	Anna Dobešová and David Hampel Asymmetries in Effects of Monetary Policy and their Link to Labour Market – Application of TVP-VARs to Three European Countries
9:20–9:40	Rostislav Staněk Convergence to monetary equilibrium in search model
9:40–10:00	Jaroslava Pražáková and Martin Pech Financial threats of network stability caused by fragments tending to bankruptcy
10:00–10:20	Ondřej Šimpach and Jitka Langhamrová Stochastic Modelling of Age-specific Mortality Rates for Demographic Projections: Two Different Approaches
10:20–10:40	Coffee break
	Chair Karol Szomolányi
10:40–11:00	Karol Szomolányi, Martin Lukáčik and Adriana Lukáčiková Small Open Economy Real Business Cycle Model of the Slovak Economy
11:00–11:20	Libor Žídek and Daniel Němec The role of exchange rate dynamics in Bulgaria and Romania in the process of economic transition
11:20–11:40	Justyna Wróblewska and Marek A. Dąbrowski Financial shocks and real exchange rate movements in Poland and Slovakia in the global financial crisis
11:40–12:00	Miroslav Žižka Model of Evaluation of Socio-Economic Disparities of Sub-Regional Units in the Czech Republic
12:00–13:30	Lunch (Menza Šmeralova)
14:00–18:00	Conference trip
19:00–22:00	Conference dinner

Conference Mathematical Methods in Economics 2014

Session E

September 12, 2014, room 5.006 (fifth floor)

8:00–9:00	Registration of participants (second floor)
	Chair Miloslav Vošvrda
9:00–9:20	Jana Hančlová and Milan Šimek Do active labour market policy programmes contribute to lower unemployment in the EU countries?
9:20–9:40	Ladislav Krištoufek and Miloslav Vošvrda Commodity futures and market efficiency
9:40–10:00	Marek Spišák and Roman Šperka On Trading Price Microeconomic Estimation in Monte Carlo Simulation
10:00–10:20	Elena Kuchina Analysis of the Dependence of the Biggest Oil Companies' Revenues on the World Oil and Gas Price by using Panel Data Tools
10:20–10:40	Coffee break
	Chair Petr Lachout
10:40–11:00	Kamila Olševičová Applying System Dynamics and Agent-based Modelling in Archaeological Simulation
11:00–11:20	Dominika Polko On testing the similarity of multivariate populations structures
11:20–11:40	Jan Acedański Pension reforms and welfare gains from eliminating business cycle in Poland
11:40–12:00	Petr Lachout On functional definition of time-series models
12:00–13:30	Lunch (Menza Šmeralova)

Conference Mathematical Methods in Economics 2014
Session F

September 10, 2014, room 5.007 (fifth floor)

	Chair Tomáš Tichý
11:15–11:35	Aleš Melecký Credit risk in the Czech Construction Sector
11:35–11:55	Tomáš Tichý Comparison of market risk models with respect to suggested changes of Basel Accord
11:55–12:15	Jaroslav Dufek and Martin Šmíd Multifactor dynamic credit risk model
12:15–12:35	Nataliya Soldatyuk and Stanislav Sopko Methods of solving missing data issues in credit risk scoring and comparison of its effectiveness
12:35–14:00	Lunch (Menza Šmeralova)
	Chair Elena Mielcová
14:00–14:20	Filip Tošenovský and Elena Mielcová An Analysis of the Interconnection of the Czech and Global Stock Markets
14:20–14:40	Simona Hašková and Robert Zeman Analytical Microeconomics as a Search Tool for the Stock Optimization
14:40–15:00	Petr Seďa Conditional Volatility Model Selection and Comparison: Example from Stock Markets
15:00–15:20	Tomáš Výrost and Štefan Lyócsa Mean-Variance Distance Based Stock Market Networks in Portfolio Optimization
15:20–15:45	Coffee break
	Chair Mikael Collan
15:45–16:05	Mario Fedrizzi, Mikael Collan, and Pasi Luukka Group Possibilistic Risk Aversion and its Impact on Giga-Investments' Insurance
16:05–16:25	Ladislav Lukáš Numerical analysis of 3-D nonlinear financial model with lagged variables – influence of initial histories
16:25–16:45	Tomasz Węgrzyn The omega ratio in the performance evaluation of mutual funds using the market timing strategy on the Polish financial market
16:45–17:05	Radosław Pietrzyk Evaluation of mutual fund performance on Polish capital market with the use of market timing models
18:00–19:00	Meeting of the Czech Society for Operations Research
19:00–21:00	Welcome evening

Conference Mathematical Methods in Economics 2014

Session F

September 11, 2014, room 5.007 (fifth floor)

8:00–9:00	Registration of participants (second floor)
	Chair Ladislav Lukáš
9:00–9:20	Jitka Poměnková and Zuzana Kučerová The Comovement of Financial and Trade Integration: Wavelet Co-Spectrum Approach
9:20–9:40	Svatopluk Kapounek and Jitka Poměnková Credit and Business Cycle Co-movements in V4 countries: Evidence from Wavelet Analysis
9:40–10:00	Marek A. Dąbrowski, Monika Papież and Sławomir Śmiech Are exchange rates in CEE countries driven by monetary fundamentals? Evidence from a panel approach
10:00–10:20	Marco Cassader and Tomáš Tichý Numerical Methods for Option Pricing
10:20–10:40	Coffee break
	Chair Pavel Zimmermann
10:40–11:00	Monika Miśkiewicz-Nawrocka and Katarzyna Zeug-Żebro The effect of the NRL indicator on the accuracy of financial series forecasts
11:00–11:20	Stanislaw Barczak Modeling the volatility:gray model GM(1,1)-GARCH vs. conventional GARCH model
11:20–11:40	Kamil Kladívko and Pavel Zimmermann Index Clause Valuation under Stochastic Inflation and Interest Rate
11:40–12:00	Adam Borovička Application possibilities of McCahone's approach
12:00–13:30	Lunch (Menza Šmeralova)
14:00–18:00	Conference trip
19:00–22:00	Conference dinner

Conference Mathematical Methods in Economics 2014

Session F

September 12, 2014, room 5.007 (fifth floor)

8:00–9:00	Registration of participants (second floor)
	Chair Quang Van Tran
9:00–9:20	Quang Van Tran and Jan Kodera A simulated heterogeneous agent double auction stock market
9:20–9:40	Sergio Ortobelli Lozza, Tomáš Tichý and Filomena Petronio On the use of dispersion measures consistent with additive shifts
9:40–10:00	Radosław Pietrzyk and Pawel Rokita Optimization of financing multiple goals with multiple investment programs for household financial planning
10:00–10:20	Jana Hvozdenská and Veronika Kajurová The application of sovereign bond spreads: The case of France, Germany and Great Britain
10:20–10:40	Coffee break
	Chair Milan Svoboda
10:40–11:00	Milan Svoboda and Ladislav Lukáš Possibilities of using Markov chains for construction of technical analysis indicators of stock exchange index PX
11:00–11:20	Petr Suchánek, Franciszek Marecki, Monika Marecka and Robert Bucki Analysis of Portfolio Options in the Field of Financial Logistics
11:20–11:40	Agata Gluzicka Diversification Effect on the Warsaw Stock Exchange
11:40–12:00	Miloš Kopa Minimal Risk Portfolios under SSD efficiency constraints
12:00–13:30	Lunch (Menza Šmeralova)

Conference Mathematical Methods in Economics 2014

Session G

September 10, 2014, room 5.008 (fifth floor)

	Chair Ludvík Friebel
11:15–11:35	Veronika Hedija Gender Pay Gap in Different Sectors of Czech Economy
11:35–11:55	Kamila Turečková and Eva Kotlánová Poverty analysis and measuring income inequality in Czech Republic
11:55–12:15	Ludvík Friebel and Jana Friebelová Using Malmquist index for evaluation of life quality development in the districts of the Czech Republic
12:15–12:35	Ľubica Šimková Impact of cooperation on firms on both sides of the market on innovation
12:35–14:00	Lunch (Menza Šmeralova)
	Chair Tomáš Formánek
14:00–14:20	Veronika Končiková The impact of China's economic rise on Czech Republic's car exports
14:20–14:40	Igor Kotlán, Zuzana Machová and Agata Drobiszová Uncertainty or Level of Government Expenditure - What Is More Harmful for Economy?
14:40–15:00	Tomáš Formánek and Roman Hušek Robustness in estimated macroeconomic policy factors for the Czech Republic
15:20–15:45	Coffee break
	Chair Jaroslav Sixta
15:45–16:05	Luboš Střelec, David Hampel, Ladislava Issever Grochova and Jitka Janová On the measurement of sustainable economic performance
16:05–16:25	Jaroslav Sixta, Jakub Fischer and Jaroslav Zbranek Regional Input-Output Tables
16:25–16:45	Václav Školuda Comparative sensitivity analysis of CGE model results obtained by different model formulations
18:00–19:00	Meeting of the Czech Society for Operations Research
19:00–21:00	Welcome evening

Conference Mathematical Methods in Economics 2014
Session G

September 11, 2014, room 5.008 (fifth floor)

8:00–9:00	Registration of participants (second floor)
	Chair Osvald Vašíček
9:00–9:20	Adam Pápai and Daniel Němec Labour market rigidities: A DSGE approach
9:20–9:40	Karolína Súkupová and Osvald Vašíček Small open economy during the period of recession: Nonlinear DSGE model approach
9:40–10:00	Vratislav Pisca and Osvald Vašíček DSGE model with a government sector and inflation targeting: Structural changes of the Czech economy in a period of recession
10:00–10:20	Stanislav Tvrz and Osvald Vašíček Nonlinear DSGE model of a small open economy with time-varying parameters: Czech economy in a period of recession
10:20–10:40	Coffee break
	Chair Lukáš Melecký
10:40–11:00	Radmila Stoklasová The influence of world oil prices on wheat price level
11:00–11:20	Sławomir Śmiech Dissimilarity of commodity prices – the results of time series clustering
12:00–13:30	Lunch (Menza Šmeralova)
14:00–18:00	Conference trip
19:00–22:00	Conference dinner

Conference Mathematical Methods in Economics 2014

Session G

September 12, 2014, room 5.008 (fifth floor)

8:00–9:00	Registration of participants (second floor)
	Chair David Hampel
9:00–9:20	Kateřina Myšková and Jaroslav Žák Influence of Technical Parameters of Underpasses and Economical Aspects on Wildlife Migrations
9:20–9:40	David Hampel and Jitka Janová Simulation of reforestation system
9:40–10:00	Martina Zámková and Martin Prokop Consumer behaviour of young people from Slovak Republic on the field of the bioproducts by using the correspondence and dependence analysis
10:00–10:20	Tamara Rudinskaya Estimation of Technical Efficiency of Food Processing Firms in the Czech Republic over the crisis period
10:20–10:40	Coffee break
	Chair Lucie Chytilová
10:40–11:00	Alena Kocmanová and Marie Pavláková Dočekalová Sustainable Performance Measurement Using Data Envelopment Analysis
11:00–11:20	Martin Branda Sample approximation techniques for DEA-risk efficiency tests
11:20–11:40	Lucie Chytilová Analysis of bank efficiency: an application of DEA approach in the Czech commercial banks
11:40–12:00	Michaela Tichá and Elena Kuchina Analysis of the dependence of GDP of the Russian Federation and the European Union on the Oil Demand and Oil Supply
12:00–13:30	Lunch (Menza Šmeralova)