

EkonomickáJihočeská univerzitafakultav Českých BudějovicíchFacultyUniversity of South Bohemiaof Economicsin České Budějovice

# **Conference Schedule**

37<sup>th</sup> International Conference on Mathematical Methods in Economics 2019

České Budějovice | September 11-13, 2019

### WEDNESDAY September 11, 2019

8:30	F	Registration
10:00	10:15 F3	Opening Ceremony
10:15	11:30 F3	Plenary Session (chair: Miloš Kopa)
	Ronald Hochreiter	From AI and Data Science back to Operations Research and Financial Modeling
11:30	13:00 menza	Lunch
13:00	14:40	Parallel Sessions
	F2	C Multiple Criteria Decision Making (chair: Jaroslav Ramík)
	Jan Rydval	Sensitivity Analysis of Priorities of Project Team Roles Using the ANP Model
	Marika Hrubešová	Is it possible to use multi-criteria decision making methods for demographic ageing typology?
	Petr Fiala	Project portfolio designing under risk
	Jaroslav Ramík	Desirable Properties of Weighting Vector in Pairwise Comparisons Matrix
	F3	F1 Portfolio Selection (chair: Van Quang Tran)
	Adam Borovička	Methodological framework for 'passive' and 'active' approach to the investment portfolio making
	Miloš Kopa	Second order stochastic dominance constraints in decision dependent randomness portfolio optimization problems
	Renata Dudzińska-Baryla	Problem of trade-offs between portfolio's mean, variance and skewness as a goal programming model
	Juraj Pekár	Portfolio selection model based on Drawdown risk measure with Different Inputs
	Van Quang Tran	Portfolio optimization with VaR and CVaR: the case of Gold and Euro currency
	F4	E1 Econometric Modeling and Applications (chair: Daniel Němec)
	Nikola Kaspříková	Cost analysis of rectifying acceptance sampling plans
	Simona Macková	Spatial Panel Data Analysis: Did the Economic Structure in Germany Changed?
	Daniel Němec	Estimating the Laffer Curve for Slovakia: A DSGE Approach
	F5	S1 Statistical and Econometric Methodology (chair: Michal Černý)
	Jan Kalina	Implicitly Weighted Robust Estimation of Quantiles in Linear Regression
	Jan Tichavský	A Nonparametric Bootstrap Comparison of Variances of Robust Regression Estimators
	Matúš Porázik	Statistical Inference for Logistic Model: Comparison of Alternative Approaches
	Michal Černý	Variability of interval-valued data: A refined analysis of an NP-hard problem
	F6	T1 Transportation and Routing Problems (chair: Jan Pelikán)
	Jan Pelikán	Vehicle routing problem with loading time window
	Dana Figurová	Cooperative Vehicle Routing Problem with non-transferable pay-off and its benefits
	Tereza Nehézová	Robust optimization approach in traveling salesman problem
	Dušan Teichmann	Transportation Problem with Time Windows
14:40	15:10 F1	Coffee Break

15:10	16:30	Parallel Sessions	
	F4	D1 Data Envelopment Analysis (chair: Jana Klicnarová)	
	Josef Jablonský	Inverse data envelopment analysis models: comparison of multi-objective optimization approaches	
	Eva Štichhauerová	The Evaluation and Selection of Suppliers: DEA Approach Quantification of differentiating power in Network DEA	
	Michal Pieter		
	F3	F2 Financial Analysis (chair: Oldřich Faldík)	
	Jiří Witzany	The Problem of Back-test Overfitting in Quantitative Trading	
	Stanislava Dvořáková	Analysis of multiple economic internal rate of return	
	Oldřich Faldík	Analysis of unit trust funds and the creation of a descriptive model, with emphasis on the risk-factor and the return of ir	
	F4	E2 Econometric Modeling and Applications (chair: Jana Klicnarová)	
	Petra Tomanová	Property and Violent Crime: Evidence from the Czech Republic	
	F5	M Miscellaneous Mathematical Techniques (chair: Emília Draženská)	
	Helena Myšková	Tolerance solvability of interval max-min matrix equations	
	Jaromír Kukal	Voigt distribution and its heavy-tail modeling ability for cryptocurrencies	
	Ladislav Lukáš	Dynamic AD-AS macroeconomic model of Mankiw type with generalized expectations	
	Emília Draženská	Crossing numbers of join product of several graphs on 6 vertices with path using cyclic permutation	
	F6	Z1 Fuzzy Modeling (chair: Monika Molnárová)	
	Simona Hašková	Profitability Estimation of Long-Term Projects in Terms of Uncertainty of Inputs	
	Aleš Kresta	Sales Prediction Applying Linguistic Fuzzy Logic Forecaster	
	Ján Plavka	Weak tolerance and possible interval supereigenvectors in fuzzy algebra	
	Monika Molnárová	Fuzzy interval Monge matrices with respect to robustness	
16:30	17:00 F1	Coffee Break	
17:00	18:30 F3	Business Meeting of the Czech Society for Operations Research	
19:00	22:00 menza	Welcome Evening	

### **THURSDAY September 12, 2019**

8:30	F	Registration
8:50	10:50 F3	PhD Student Competition
	Petra Zýková	Dynamic efficiency analysis of German NUTS 2
	Tomáš Rusý	Interest Rate Modelling: Maximum Likelihood Estimation of One-Factor Short-Rate Models
	Petra Tomanová	Price Clustering Phenomenon
	Xiaoshan Feng	An Empirical Analysis of Macroeconomic and Bank Performance Factors Affecting Credit Risk in Banking for The Central
	Anlan Wang	Applications of Mathematical Optimization Approaches to Portfolio
	Michal Škoda	Evaluation of a Crisis Situation Based on Incomplete and Unsound Data
8:50	10:10	Parallel Sessions
	F2	F3 Decision Making in Finance (chair: Michal Houda)
	Adéla Špačková	Tariff analysis in a motor hull insurance portfolio
	Oldřich Faldík	Decision-making support as part of the sustainable investment in unit trust funds
	F4	E3 Econometric Modeling and Applications (chair: Michaela Chocholatá)
	Michaela Chochola	á School Performance and Various Socioeconomic Factors: A GWR Approach for Slovak Data
	Petra Vašaničová	Business environment and its relations within Travel and Tourism Competitiveness Index
	Martina Kuncová	Electricity Consumption Cost for Households in the Czech Republic Based on the High and Low Tariff Rates Ratio – Optir
	Ondřej Šimpach	Analysis of production function of agricultural holdings
	F5	N Network Models (chair: Robert Hlavatý)
	František Koblasa	Adaptive population techniques in Evolution Algorithms
	Marek Kvet	Identification of the Maximal Relevant Distance in Emergency System Designing
	Martin Pech	The identification of the Key players in the supply chain network
	Robert Hlavatý	An alternative approach towards dealing with uncertainty in project time analysis
	F6	O Mathematical Optimization (chair: Michal Fendek)
	Karel Sladký	Second Order Optimality in Semi-Markov Decision Processes
	Vlasta Kaňková	Mean-Risk Optimization Problems via Scalarization, Stochastic Dominance, Empirical Estimates
	Michal Fendek	Optimality conditions in behavior optimization model of consumers in the network industries markets
10:10	10:40 F1	Coffee Break

10:40	12:00	Parallel Sessions	
	F2	D2 Data Envelopment Analysis (chair: Lucie Chytilová)	
	Miroslav Žižka	Inter-Branch Comparison of Cluster Company Performance Using Malmquist Index	
	Natalie Pelloneová	Influence of Membership in the Moravian Aerospace Cluster on the Financial Performance of its Members: Malmquist	
	Lucie Chytilová	Energy Efficiency Comparison of EU28 Countries Based on Various Undesirable Outputs of Air Emissions	
	F4	E4 Econometric Modeling and Applications (chair: Jaroslav Sixta)	
Petr Volf		An application of the Cox regression model with time dependent parameters to unemployment data	
	Andrea Čížků	Relationship between Output and Unemployment	
	Jakub Bechný	Labour market frictions and vacancies: small open economy DSGE model	
	Jaroslav Sixta	Multiplication effects of social and health services	
F5		F4 Financial Analysis of Exchange Markets (chair: Hana Dvořáčková)	
Jan Kodera Tomáš Orav	Jan Kodera	Determination of exchange rate returns dynamic with recurrence analysis	
	Tomáš Oravec	Czech Economy under Foreign Exchange Intervention Regimes	
	Michal Dominik Stasiak	Trend analysis with use of binary representation	
H	Hana Dvořáčková	Experimental finance: the Gender Differences in the Disposition Effect Bias	
	F6	S2 Statistical and Econometric Methodology (chair: Jiří Hozman)	
	Jiří Georgiev	Forecasting Inflation in Small Open Economies	
	Stavros Athanasiadis	European insurance market analysis via functional data clustering techniques	
	Vladimír Holý	A Note on Method of Moments Estimation of Ornstein-Uhlenbeck Process Using Ultra-High-Frequency Data	
	Jiří Hozman	Review of several numerical approaches to sensitivity measurement of the Black-Scholes option prices	
12:00	13:00 menza	Lunch	
13:45	20:00	Conference Trip & Dinner (Kleť Mountain)	

### FRIDAY September 13, 2019

8:15	F	Registration
8:30	9:50	Parallel Sessions
	F2	P Project Management (chair: Igor Krejčí)
	Igor Krejčí	The Dynamics of Work Effort in Project Management
	Helena Brožová	Task threatness matrix in the Project management
	Petr Kučera	Critical mass task identification in projects
	Jan Rydval	Semantic Model of Project Management in Corporate practice
	F3	E5 Computational Econometrics (chair: Radim Remeš)
	Radmila Krkošková	Analysis of labour market development in the Czech Republic
	Pavel Pražák	Least Squares Method With Equality Constraints and Polynomial Approximation of Lorenz Curve
	Radim Remeš	The use of belief function theory in recommendation based on a similarity diffusion
	Renata Klufová	Local Action Groups in the Czech Republic and their assessment
	F4	E6 Econometric Modeling and Applications (chair: Ondřej Badura)
	Tomáš Ťoupal	Possible Statistical Comparison of Two Time Series
	Lukáš Veverka	Analysis of TV advertisement
	Ondřej Badura	Relative Income in Durable and Non-Durable Consumption Function: Cross-Sectional Study
	F5	Z2 Fuzzy Numbers (chair: Tomáš Talášek)
	Krzysztof Piasecki	The relation "greater than or equal to" for trapezoidal ordered fuzzy numbers
	Anna Łyczkowska-Hanćkowiak	The Jensen's ratio determined by oriented fuzzy discount factor
	Tomáš Talášek	Comparison of similarity measures for generalized trapezoidal fuzzy numbers
9:50	10:20 F1	Coffee Break
10:20	11:15 F3	Plenary Session (chair: Petr Fiala)
	Gustav Feichtinger	The Mathematics of Ageing
11:15	11:20 F3	Farewell Ceremony
11:20	13:00 menza	Lunch

## **Notes**

Enjoy the conference time!

