Mathematical Methods in Economy and Industry, 9-12.9.2014, Smolenice and Summer School on Computational Finance, 8-12.9.2014

Program structure

	09:00	09:50	10:20	10:45	11:10	11:35	12:00	14:00	14:25	14:50	15:15	15:40	16:05	16:25	16:50	17:15	17:40	18:05	18:30	19:00	20:00
Monday 2014/9/8	Guerra (lecture)	coffee break	Ehrhardt (lecture)				lunch	Guerra (lecture)					coffee break	Ehrhardt (lecture)			Guerra (lecture)			Dinner	
Tuesday 2014/9/9	Manlove	coffee break					lunch						coffee break	Presentations of Summer School participants						Dinner	
Wednesday 2014/9/10	Heidergott	coffee break	Trnovská		Richtárik		lunch	Excursion												Conference dinner, Social programm, Live music	
Thursday 2014/9/11	Vogel	coffee break					lunch	Černý (lecture)					coffee break	Černý (lecture and tutorial)						Dinner	Wine tasting
Friday 2014/9/12		coffee break	Gfrerer		Asada		lunch	Departure													

Legend:

- Invited lectures, 50 minutes including discussion
- Contributed talks, 25 minutes including discussion
- Summer School on Computational Finance, 8.-12.9.2014

Tuesday, September 9, 2014

8:50	9:00	Opening ceremony		
		Chairperson:	*Katarína Cechlárová*	
9:00	9:50	David F.	**Manlove**	Junior Doctor Allocation and Kidney Exchange in the UK: Theory and Practice
9:50	10:20	Coffee break		
		Chairperson:	*Miloš Kopa*	
		Section:	***Stochastic Programming, Probability Theory***	
10:20	10:45	Jitka	**Dupačová**	Stress testing for risk-averse stochastic programs
10:45	11:10	Vlasta	**Kaňková**	Empirical Estimates in Stochastic Programs with Probability and Second Order Stochastic Dominance Constrained
11:10	11:35	Petr	**Lachout**	Description of families of quasi-concave functions
11:35	12:00	Martin	**Branda**	Exact penalization in stochastic programming under calmness and constraint qualification conditions
12:00	14:00	Lunch		
		Chairperson:	*David Manlove*	
		Section:	***Mathematical Economy, Game theory, Portfolio Optimization***	
14:00	14:25	Katarína	**Cechlárová**	Modelling placement of teachers to schools
14:25	14:50	Pavlos	**Eirinakis**	Pareto optimal matchings
14:50	15:15	Miloš	**Kopa**	Representative utility functions in portfolio efficiency testing with respect to various stochastic dominance criteria
15:15	15:40	Agnieszka	**Wiszniewska - Matyszkiel**	Dynamic oligopoly with sticky prices --- off-steady-state analysis
15:40	16:05	Rudolf	**Zimka**	On the converse of Hartwick´s result in a multi-dimensional model of an economy with exhaustible resources
16:05	16:25	Coffee break		
		Chairperson:	*Pavol Brunovský*	
		Section:	***Mathematical Economy, Portfolio Optimization (Paralell session – Main lecture room)***	
16:25	16:50	Eva	**Kvasničková**	Impact of Luck on Performance Classification of Socially Responsible and Conventional Mutual Funds
16:50	17:15	Július	**Krempaský**	A quantitative approach to the theory of evolution of economic systems
17:15	17:40	Vladimír	**Špitalský**	Multinomial likelihood the recession cone view
17:40	18:05	Martin	**Šmíd**	A model of rational behaviour at limit order markets
		Chairperson:	*Ljudmila Bordag*	
		Section:		
		Financial Mathematics, I. Part (Paralell session for Summer School participants – Hunting salon)		
16:25	16:50	Zuzana	**Bučková**	Numerical Analysis of the Alternating Direction Explicit Method and its Application in Finance
16:50	17:15	Vera	**Egorova**	Constructing Positive Reliable Numerical Solution for American Options: A New Front-Fixing Approach
17:15	17:40	Walter	**Mudzimbabwe**	Numerical solution of a stochastic control problem of option pricing for a liquidity switching Market
17:40	18:05	Filipe	**Santos**	Convexity adjustments for the pricing of futures and forwards
18:05	18:30	Christian	**Hendricks**	High order Combination Technique for the efficient Pricing of Basket Options
18:30	18:55	Long	**Teng**	Option Price with dynamically correlated Stochastic Interest Rate
19:00	20:00	Dinner		

Wednesday, September 10, 2014

Chairperson: *Silvia Vogel*

9:00	9:50	Bernd	**Heidergott**	Towards a Statistical System Analysis
9:50	10:20	Coffee break		

Chairperson: *Daniel Ševčovič*

10:20	11:10	Mária	**Trnovská**	Conic relaxations and strong duality in quadratic programs
11:10	12:00	Peter	**Richtárik**	A Unified Theory of Randomized Block Coordinate Descent Methods for Big Data Optimisation
12:00	13:30	Lunch		
13:30	18:00	Excursion		
19:00	23:00	Conference dinner, Social programme, Live music		

Thursday, September 11, 2014

Chairperson: *Petr Lachout*

9:00	9:50	Silvia	**Vogel**	*Random Approximations and Confidence Sets in Multiobjective Optimization*

9:50	10:20	Coffee break

Chairperson: *Pavol Brunovský*

Section: **Differential equations and Optimization**

10:20	10:45	Mariana	**Remešíková**	Truss structure design using a length-oriented surface remeshing technique
10:45	11:10	Daniel	**Ševčovič**	Solution to the inverse Wulff problem by means of the enhanced semidefinite relaxation method
11:10	11:35	Zuzana	**Chladná**	Incentive to vaccinate: a synthesis of the two approaches
11:35	12:00	Michal	**Zákopčan**	Equilibria and stable paths in infinite horizon nonlinear control problems with discrete time the linear-quadratic approximation

12:00	14:00	Lunch

Chairperson: *Peter Richtárik*

Section: **Optimization, Topological design, Mathematical Programming**

14:00	14:25	Jakub	**Konečný**	Semi-Stochastic Gradient Descent Methods
14:25	14:50	Michal	**Houda**	On the use of Archimedean copulas in chance-constrained programming
14:50	15:15	David	**Bartl**	A discrete version of Farkas' Lemma, homogeneous systems of linear inequalities, and a Duality Theorem for homogeneous linear programming
15:15	15:40	Matus	**Benko**	Active set method for mathematical programs with complementarity constraints
15:40	16:05	Roman	**Kukumberg**	Methods for solving nonsmooth convex problems

16:05	16:25	Coffee break

Chairperson: *Maria do Rosario Grossinho*

Section: ***Financial Mathematics, II. Part (Paralell session – Main lecture room)***

16:25	16:50	Soňa	**Kilianová**	Dynamic Worst Case Portfolio Optimization via a Hamilton-Jacobi-Bellman Equation
16:50	17:15	Sima	**Mashayekhi**	Nonstandard Finite Difference Scheme for a Nonlinear Black-Scholes equation with Transaction Costs
17:15	17:40	Ljudmila A.	**Bordag**	Optimization problem for a portfolio with an illiquid asset: Lie group analysis
17:40	18:05	Kamil	**Kladivko**	An Incomplete Market Approach to Employee Stock Option Valuation
18:05	18:30	Lubin	**Vulkov**	On Fitted Finite Volume Splitting Operator Methods for the Valuation of Asian Options
18:30	18:55	Tihomir	**Gyulov**	Well-Posedness and Comparison Principle for Option Pricing with Liquidity Shocks

19:00	20:00	Dinner
20:00	22:00	Wine tasting

Friday, September 12, 2014

Chairperson: *Soňa Kilianová*

Section: ***Financial Mathematics, III. Part***

9:00	9:25	Igor	**Melicherčík**	Investment Strategies in the Funded Pillar of the Slovak Pension System
9:25	9:50	Pedro	**Pólvora**	Derivative pricing with transaction costs using a stochastic utility maximization model
9:50	10:20	Coffee break		

Chairperson: *Rudolf Zimka*

10:20	11:10	Helmut	**Gfrerer**	Handling mathematical programs with equilibrium constraints by generalized equations
11:10	12:00	Toichiro	**Asada**	Mathematical Modeling of Financial Instability and Macroeconomic Stabilization Policies
12:00	12:10	Closing of MMEI2014 Conference and the Summer School		
12:10	14:00	Lunch		
14:00	15:00	Departure		

Summer School on Computational Finance, 8-12.9.2014

Monday, September 8, 2014

Opening of the Summer School

Chairperson: Daniel Ševčovič

Lectures on Stochastic dynamic programming

9:10	9:50	Manuel	**Guerra**	Stochastic dynamic programming and control of Markov processes I. part

9:50	10:20	Coffee break

Lectures on Project management

10:20	12:00	Matthias	**Ehrhardt**	Project management and soft skills tutorials I. part – Risk Assessment

12:00	14:00	Lunch

Chairperson: Daniel Ševčovič

Lectures on Stochastic dynamic programming

14:00	16:05	Manuel	**Guerra**	Stochastic dynamic programming and control of Markov processes II. part

16:05	16:25	Coffee break

Chairperson: Daniel Ševčovič

Lectures on Stochastic dynamic programming and project management

16:25	17:40	Matthias	**Ehrhardt**	Project management and soft skills tutorials, II. and III. parts - Grant writing in Horizon 2020 framework program and Time Management
17:40	18:55	Manuel	**Guerra**	Stochastic dynamic programming and control of Markov processes III. part and tutorials

Tuesday, September 9, 2014

9:00	12:00	Attendance of the Summer School participants at plenary and contributed section talks
14:00	16:05	Attendance of the Summer School participants at plenary and contributed section talks
16:25	18:55	Contributed talks of participants of the Summer School in the Section Financial Mathematics

Wednesday, September 10, 2014

9:00	12:00	Attendance of the Summer School participants at plenary talks

Thursday, September 11, 2014

9:00	12:00	Attendance of the Summer School participants at plenary and contributed section talks

Chairperson: Manuel Guerra

Lectures on Mean-Variance hedging (Paralell session for Summer School participants – Hunting salon)

14:00	16:05	Aleš	**Černý**	Mean-variance hedging of financial derivatives, I. part
16:25	18:55	Aleš	**Černý**	Mean-variance hedging of financial derivatives, II. part and tutorials

Friday, September 12, 2014

9:00	9:50	Contributed talks of participants of the Summer School in the Section Financial Mathematics, III. Part
10:20	12:00	Attendance of the Summer School participants at plenary and contributed section talks