

Monday, Sep 2

**Production 1**

Room: HS 1

Chair: Oliver Seefried

**13:30 - 14:00: Planung der Bestückungsreihenfolge elektronischer Baugruppen mit Hilfe savings-basierter Heuristiken**

*Hans-Otto Günther*

M. Grunow, M.

Schleusener, I.O. Yilmaz

**14:00 - 14:30: Strategien zur Rüstzeitvermeidung in der Elektronikfertigung**

*Claus-Burkard Boehnlein*

**14:30 - 15:00: Optimale Belegungsplanung von Stranggießanlagen mittels 2-dimensionaler Bin-Packing-Modelle**

*Oliver Seefried*

Th. Spengler

Monday, Sep 2

**Fuzzy Logic, Multicriteria Decision Making, Decision Theory 1**

Room: HS 10

Chair: Brigitte Werners

**13:30 - 14:00: MCDM and Performance Measurement Using a Decision Model**

*Celik Parkan*

**14:00 - 14:30: Decision models with ordinal information**

*Helena Brozova*

**14:30 - 15:00: Präferenzmessung mit Conjoint-Analyse und AHP**

*Armin Scholl*

Roland Helm, Laura

Manthey, Michael Steiner

Monday, Sep 2

**Marketing and Data Analysis 1**

Room: HS 2

Chair: Udo Wagner

**13:30 - 14:00: Empirical test of the consumer behavior theory of price valuation using a semiparametric approach, reference prices and accounting for heterogeneity**

*Yasemin Boztug*

Lutz Hildebrandt

**14:00 - 14:30: Decision Support for Telecommunications Pricing**

*Cornelia Schoen*

**14:30 - 15:00: Measurement Invariance and Finite Mixture Confirmatory Factor Analysis**

*Dirk Temme*

Monday, Sep 2

**Transportation and Traffic 1**

Room: HS 3

Chair: Ophelia Engelhardt-Funke

**13:30 - 14:00: A Conjugate Direction Frank-Wolfe Method with Applications to Traffic Assignment**

*Maria*

*Mitradjieva-Daneva*

P. O. Lindberg

**14:00 - 14:30: Optimization models for the delay management problem**

*Anita Schöbel*

**14:30 - 15:00: Integrating stochastic delays into multicriterial time-table optimization**

*Ophelia*

*Engelhardt-Funke*

Michael Kolonko

Monday, Sep 2

**Scheduling and Project Management 1**

Room: HS 4

Chair: Christoph Schwindt

**13:30 - 14:00: A hybrid constraint propagation-cutting plane procedure for the RCPSP**

*Christian Artigues*

Sophie Demasse, Philippe

Michelon

**14:00 - 14:30: A New Exact Implicit Enumeration Procedure for the Resource Constrained Project Scheduling Problem with Discounted Cash Flows**

*György Csébfalvi*

**14:30 - 15:00: A Branch-and-Bound Algorithm for the Capital-Rationed Net Present Value Problem**

*Christoph Schwindt*

Monday, Sep 2

**Agriculture**

Room: HS 5

Chair: Lidija Zadnik Stirn

**13:30 - 14:00: Application of computer simulation modelling in farm management analysis**

*Crtomir Rozman  
Jernej Turk*

**14:00 - 14:30: AHP Model for Achieving the Minimum of a Burned Area after Forest Fires**

*Ksenija Segotic  
Spanjol Zeljko*

**14:30 - 15:00: A Practical Approach to a Multifunctional Managerial Problem of a Small Farm in Slovenia**

*Janja Zagar  
Metka Žan, Lidija Zadnik*

Monday, Sep 2

**Energy, Environment 1**

Room: HS 6

Chair: Petra Mutzel

**13:30 - 14:00: Non-linear programming in a decision support tool for electric utility planning in liberalised energy markets**

*Dominik Möst  
Wolf Fichtner, Otto Rentz*

**14:00 - 14:30: Strategien zur Beschleunigung der GGLP im Rahmen der Einsatzoptimierung von Energieversorgungssystemen**

*Peter Hackländer  
Johannes Verstege*

**14:30 - 15:00: Choise of the Best Electric Energy Supplier**

*Suad Halilcevic*

Monday, Sep 2

**Control Theory, Systems Dynamics, Dynamic Games 1**

Room: HS 7

Chair: Markus Schwaninger

**13:30 - 14:00: Dynamic Theory of Industrial Service Management**

*Heiko Gebauer*

**14:00 - 14:30: Dynamic system approach for analysis of organizational culture**

*Javad Jafarali Jassbi  
S.Khanmohamadi,  
A.Toloie*

**14:30 - 15:00: Strategische Unternehmensplanung mit System Dynamics (SD)**

*Peter Bradl*

Monday, Sep 2

**Continuous Optimization 1**

Room: HS 8

Chair: Diethard Klatte

**13:30 - 14:00: Towards A Conic Bundle Package for Linear Programming over Symmetric Cones**

*Christoph Helmberg*

**14:00 - 14:30: Solving Lagrangian relaxations with a proximal analytic center cutting**

*Jean-Philippe Vial  
O. du Merle*

**14:30 - 15:00: An infeasible interior method with  $1 - O(\sqrt{\theta})$  rate of convergence**

*Florian Jarre  
Roland W. Freund*

Monday, Sep 2

**Stochastic and Dynamic Programming 1**

Room: HS 9

Chair: Werner Roemisch

**13:30 - 14:00: Monte Carlo Methods for Establishing Solution Quality in Stochastic Programs**

*David Morton*

**14:00 - 14:30: Solving stochastic programming problems by successive regression approximations**

*Istvan Deak*

**14:30 - 15:00: Decomposition Method for Bounding Expectations of Multivariate Higher Order Convex Functions of Discrete Random Variables Based on Moment Information**

*Gergely Nagy*

*Monday, Sep 2*

**Scheduling 1**

*Room: HS B  
Chair: Rolf Möhring*

**13:30 - 14:00: The Subset Sum Heuristic for Bin Packing**

*Ulrich Pferschy  
Alberto Caprara*

**14:00 - 14:30: Minimum Turn Cycle Covers in Grid Graphs**

*Marco E. Lübbecke  
Gunnar W. Klau*

**14:30 - 15:00: Minimal Covers and Resource Constraints in Scheduling**

*Marc Uetz  
Frederik Stork*

*Monday, Sep 2*

**Scheduling and Project Management 2**

*Room: HS C  
Chair: Adam Janiak*

**13:30 - 14:00: Total weighted tardiness, total weighted earliness and total weighted compression cost minimization in a single machine scheduling problem with controllable processing times**

*Maciej Lichtenstein  
Krzysztof Chudzik, Adam Janiak*

**14:00 - 14:30: Scheduling jobs with values dependent on their completion times**

*Aleksander Bachman  
Adam Janiak, Tomasz Krysiak, Costas Pappis, Theodore Voutsinas*

**14:30 - 15:00: Scheduling problems with optimal due interval assignment subject to some generalized criteria**

*Adam Janiak*

*Monday, Sep 2*

**Mathematical Economics 1**

*Room: E0.05  
Chair: Stefan Pickl*

**13:30 - 14:00: Efficient LU Factorization of the Hawkins-Simon Condition**

*Reiner Wolff*

**14:00 - 14:30: Semidefinite Programming and some Economic Problems**

*Janez Povh*

**14:30 - 15:00: Existence and Algorithmic Determination of Core Elements exploiting Dualisation Theory**

*Stefan Pickl  
Silja Meyer-Nieberg*

*Monday, Sep 2*

**Financial Markets 1**

*Room: E1.05  
Chair: Andreas Oehler*

**13:30 - 14:00: Multi-Agent Modeling of Financial Markets**

*Hans-Georg Zimmermann  
Christoph Tietz, Ralph Neuneier, Ralph Grothmann*

**14:00 - 14:30: Capital Market Efficiency – An Empirical Analysis of the Dividend Announcement Effect for the Austrian Stock Market**

*Roland Mestel  
Henryk Gurgul, Christoph Schleicher*

**14:30 - 15:00: Dying out or dying hard? Disposition investors in stock markets**

*Andreas Oehler  
Klaus Heilmann, Volker Läger, Michael Oberländer*

*Monday, Sep 2*

**Supply Chain Management 1**

*Room: HS 1*

*Chair: Julius Rebo*

**16:30 - 17:00: Demand allocation in Multiple-Product, Multiple-Facility Make-to-Stock Systems**

*Mohsen Elhafsi  
Saif Benjaafar*

**17:00 - 17:30: A control theory investigation of demand bubbles**

*Paulo Goncalves*

**17:30 - 18:00: Mathematical Programming Models for Strategic Supply Chain Planning and Design**

*Stefan Nickel  
M. Teresa Melo, Jörg Kalcsics*

*Monday, Sep 2*

**Fuzzy Logic, Multicriteria Decision Making, Decision Theory 2**

*Room: HS 10*

*Chair: Wilhelm Rödder*

**16:30 - 17:00: A heuristic multi-criteria approach for the capacitated vehicle routing problem with fuzzy demand**

*Michael Drawe  
Brigitte Werners*

**17:00 - 17:30: Fuzzy Multiple Objective Suppliers Selection in SCM Systems**

*Soroosh Saghiri  
M.H. Fazel Zarandi*

**17:30 - 18:00: A fuzzy linguistic based approach for the selection of sustainable product improvement alternatives**

*Anthony Halog*

*Monday, Sep 2*

**Production 2**

*Room: HS 2*

*Chair: Thomas Elendner*

**16:30 - 17:00: Ein Verfahren zur Steuerung von flexiblen Mehrprodukt Produktionslinien**

*Henrik J. Paul  
Christian Bierwirth,  
Herbert Kopfer*

**17:00 - 17:30: An optimal replacement policy using two stage markovian shock model**

*Abdur Rahim  
S. N. Khursheed*

**17:30 - 18:00: Winner Determination in Combinatorial Auctions: An Application to Decentralized Production Planning**

*Thomas Elendner*

*Monday, Sep 2*

**Transportation and Traffic 2**

*Room: HS 3*

*Chair: Klaus Ladner*

**16:30 - 17:00: Control of an Isolated Intersection During Hyper-congestion**

*David Mahalel  
Irit Talmor*

**17:00 - 17:30: Online-Algorithmus zur Steuerung von Verkehrslichtsignalanlagen**

*Klaus Ladner*

*Monday, Sep 2*

**Scheduling and Project Management 3**

*Room: HS 4*

*Chair: Andreas Drexler*

**16:30 - 17:00: Stochastic PERT modelling**

*Tamás Szántai  
András Prékopa, Jianmin Long*

**17:00 - 17:30: A New Exact Resource Allocation Model with Hard and Soft Resource Constraints**

*Ferenc Kruzsliz*

**17:30 - 18:00: Mathematical Programming Model of the Critical Chain Method and Its Solving on a Spreadsheet**

*Pavlina Langrova  
Tomas Subrt*

*Monday, Sep 2*

**Public Economy I**

*Room: HS 5*

*Chair: Marija Bogataj*

**16:30 - 17:00: A Progress Report on Research in the Field of Tour Planning in Municipal Waste Disposal**

*Lothar Dohmen*

**17:00 - 17:30: A Bayesian network model of two-car accidents**

*Marjan Simoncic*

**17:30 - 18:00: Group Decision Making versus Expert Opinion in the Multiobjective Analysis of Ecosystem Management**

*Lidija Zadnik Stirn*

*Monday, Sep 2*

**Energy, Environment 2**

*Room: HS 6*

*Chair: Axel Tuma*

**16:30 - 17:00: Stromerzeugungsprognose von Windenergieanlagen mit Neuronalen Netzen**

*Roman Hinteregger*

*Erich Fuchs, Herbert Müller*

**17:00 - 17:30: Zuflussvorhersage für den Kraftwerkseinsatz als Grundlage des EPV-Energiewirtschaftliches Planungssystem Verbund**

*Martin Bachhiesl*

**17:30 - 18:00: Ansätze zur räumlichen Ausbauoptimierung von Fernwärmenetzen**

*Petra Mutzel*

*Johannes Hackner, Gunnar Klau, Gabriele Kodydek, Ivana Ljubic, Andreas Moser, Philipp Neuner, Günther Raidl, Martin Schönhacker, Rene Weiskircher*

*Monday, Sep 2*

**Control Theory, Systems Dynamics, Dynamic Games 2**

*Room: HS 7*

*Chair: Vladimir Veliov*

**16:30 - 17:00: Optimal Pricing of a Product which Diffuses in Rich and Poor Populations**

*Andreas J. Novak*

*Richard F. Hartl, Ambar G. Rao, Suresh P.Sethi*

**17:00 - 17:30: Common Property Resource and Private Capital Accumulation**

*Seiichi Katayama*

*Ngo Van Long*

**17:30 - 18:00: The Structure of Optimal Decision Rules in the European Monetary Union**

*Reinhard Neck*

*Doris A. Behrens*

*Monday, Sep 2*

**Simulation 1**

*Room: HS 8*

*Chair: Peter Chamoni*

**16:30 - 17:00: Capacity planning system for container terminals**

*Carsten Boll*

**17:00 - 17:30: Valuation of Simulation in the field of Operations Research**

*Heinz Ulrich*

**17:30 - 18:00: The Number of Physicians in the Spanish Health System**

*Isabel Alonso Magdaleno*

*Monday, Sep 2*

**Stochastic and Dynamic Programming 2**

*Room: HS 9*

*Chair: Vlasta Kankova*

**16:30 - 17:00: Scenario Updating Method for Stochastic Mixed-integer Programming Problems.**

*Guglielmo Lulli*

*Suvrajeet Sen*

**17:00 - 17:30: Conditional Value-at-Risk in Stochastic Integer Programming**

*Stephan Tiedemann*

*Andreas Märkert, Rüdiger Schultz*

**17:30 - 18:00: Dualizations, duality gaps and dual decomposition of non-convex multistage stochastic programs**

*Werner Roemisch*

*Darinka Dentcheva*

*Monday, Sep 2*

**Scheduling 2**

*Room: HS B  
Chair: Marc Uetz*

**16:30 - 17:00: Single machine scheduling problems with exponential start time dependent job processing times**

*Adam Janiak  
Aleksander Bachman,  
Mikhail Y. Kovalyov*

**17:00 - 17:30: Total weighted completion time minimization in a single machine scheduling problem with resource dependent setup times**

*Maciej Lichtenstein  
Adam Janiak*

*Monday, Sep 2*

**Scheduling and Project Management 4**

*Room: HS C  
Chair: Klaus Jansen*

**16:30 - 17:00: Scheduling Preemptable Malleable Tasks**

*Maciej Machowiak  
J. Blazewicz,  
M.Y.Kovalyov, D.  
Trystram, J. Weglarz*

**17:00 - 17:30: Scheduling Malleable Parallel Tasks: An Asymptotic Fully Polynomial-Time Approximation Scheme**

*Klaus Jansen*

**17:30 - 18:00: An Approximation Algorithm with Absolute Worst-Case Performance Ratio 2 for Two-Dimensional Vector Packing**

*Vladimir Kotov  
Hans Kellerer*

*Monday, Sep 2*

**Mathematical Economics 2**

*Room: E0.05  
Chair: Susanne Fuchs-Seliger*

**16:30 - 17:00: The Chaotic Model of Inflation and Unemployment:EU**

*Vesna Jablanovic*

**17:00 - 17:30: Production in Oligopoly with Intertemporal Demand Interactions**

*Koji Okuguchi  
Ferenc Szidarovszky*

**17:30 - 18:00: Indirect Expenditure Functions and Shephard's Lemma**

*Susanne Fuchs-Seliger*

*Monday, Sep 2*

**Derivatives**

*Room: E1.05  
Chair: Nicole Branger*

**16:30 - 17:00: Pricing Options on Leveraged Equity with Default Risk and Exponentially Increasing, Finite Maturity Debt**

*Michael Hanke*

**17:00 - 17:30: Computation Model for Option Evaluation on Probability Trees using EXCEL**

*Alfred Kalliauer  
Andrea Kalliauer*

**17:30 - 18:00: Pricing Derivative Securities Using Cross-Entropy: An Economic Analysis**

*Nicole Branger*

*Tuesday, Sep 3*

**Production 3**

*Room: HS 1*

*Chair: Peter Letmathe*

**9:00 - 9:30: No-wait scheduling in supply chain environment**

*Satyaveer Singh Chauhan  
Jean-Marie Proth*

**9:30 - 10:00: Short-term capacity planning in manufacturing companies with a decentralized organization**

*Peter Letmathe*

*Tuesday, Sep 3*

**Fuzzy Logic, Multicriteria Decision Making, Decision Theory 3**

*Room: HS 10*

*Chair: Heinrich Kuhn*

**9:00 - 9:30: Weiterentwicklungen der MADM-Verfahren in China und in Deutschland**

*Jutta Geldermann  
Kejing Zhang, Otto Rentz*

**9:30 - 10:00: Transformation of Attributes in Multiple Attribute Decision-Making Models**

*Ludmila Domeova  
Milan Houška*

*Tuesday, Sep 3*

**Marketing and Data Analysis 2**

*Room: HS 2*

*Chair: N.N.*

**9:00 - 9:30: Estimating Brand Switching from Scanning Data**

*Heribert Reisinger  
Udo Wagner, Matthias Schuster*

**9:30 - 10:00: Model and the Latent Class Model - With an Application from Metric Conjoint Analysis**

*Regina Tüchler  
Sylvia Frühwirth-Schnatter,  
Thomas Otter*

*Tuesday, Sep 3*

**Transportation and Traffic 3**

*Room: HS 3*

*Chair: Osman Gök*

**9:00 - 9:30: Incident Management based on Real Time Simulation**

*Jürgen Zajicek*

**9:30 - 10:00: The Crucial Role of Human Resources Management Functions in Preventing Traffic Accidents: Coach Operator Companies in Turkey**

*Osman Gök  
Asena Altin Gulova*

*Tuesday, Sep 3*

**Scheduling and Project Management 5**

*Room: HS 4*

*Chair: Lars Mönch*

**9:00 - 9:30: Minimizing Total Weighted Tardiness on Parallel Batch Process Machines Using Genetic Algorithms**

*Lars Mönch  
Hari Balasubramanian,  
John Fowler, Michele Pfund*

**9:30 - 10:00: Scheduling and project management on CPM and PERT with simulation**

*Vikas Bhumireddy  
Lakshmi  
R. Venkatesh*

*Tuesday, Sep 3*

**Education I**

*Room: HS 5*

*Chair: Gerhard Reichmann*

**9:00 - 9:30: Solver in function of solving linear programming problems**

*Marina Cicin-Sain  
Marija Marinovic*

**9:30 - 10:00: Zur Problematik der Auswahl geeigneter Input- und Outputfaktoren bei Leistungsvergleichen mit Hilfe der DEA am Beispiel von Fachhochschulbibliotheken in Deutschland**

*Gerhard Reichmann  
Margit*

*Sommersguter-Reichmann*

*Tuesday, Sep 3*

**Control Theory, Systems Dynamics, Dynamic Games 3**

*Room: HS 7*

*Chair: Gernot Tragler*

**9:00 - 9:30: Is the Recurrence of Delinquent Behavior Optimal?**

*Doris Behrens*

**9:30 - 10:00: Age-dependent Optimal Prevention Program for Marijuana Use in Australia**

*Christian Almeder  
C.Y. Kaya, G. Tragler, G. Feichtinger*

*Tuesday, Sep 3*

**Continuous Optimization 2**

*Room: HS 8*

*Chair: Jean-Philippe Vial*

**9:00 - 9:30: Methods of Reduced Directions for Parallel Computers Using Binary Trees**

*Viktor Izhutkin  
O.V. Bastrakova*

**9:30 - 10:00: Algorithm of constructing of stability regions for local Hoffman's constant**

*Evgeny Belousov*

*Tuesday, Sep 3*

**TSP 1**

*Room: HS B*

*Chair: Gerhard Reinelt*

**9:00 - 9:30: The Max TSP: asymptotically optimal algorithms in Euclidean space**

*Edward Gimadi  
Alexey Y. Baburin*

**9:30 - 10:00: On a polynomially solvable case of traveling salesman problem: extension of Lawler's conditions**

*Vitali Demidenko  
Valery Gordon, Jean-Marie Proth*

*Tuesday, Sep 3*

**Scheduling and Project Management 6**

*Room: HS C*

*Chair: Davaadorjin Monhor*

**9:00 - 9:30: Probabilistic Critical Path in Stochastic PERT**

*Davaadorjin Monhor*

**9:30 - 10:00: Multiple Criteria Discrete Programming Models for Project Management**

*Tomas Subrt*

*Tuesday, Sep 3*

**Econometrics**

*Room: E0.05*

*Chair: Leopold Sögner*

**9:00 - 9:30: Model analysis and expectations of the causalities and cointegrations between some basic economic indicators -Case of Croatia-**

*Snjezana Pivac  
Zdravka Aljinovic*

**9:30 - 10:00: Bayesian Estimation of the Heston Stochastic Volatility Model**

*Leopold Sögner  
Sylvia Frühwirth-Schnatter*

*Tuesday, Sep 3*

**Expertsystems and Goal Programming**

*Room: E1.05*

*Chair: André Ahuja*

**9:00 - 9:30: Using Multi-criteria Decising Making in Loss Reserve Calculation Process in Insurance Company**

*Alicja Wolny*

**9:30 - 10:00: Project Risk Management by a Probabilistic Expert System**

*André Ahuja  
Wilhelm Rödder*

*Tuesday, Sep 3*

**Production 4**

*Room: HS 1*

*Chair: Jens Henoch*

**11:30 - 12:00: Bidding System for task Allocation in a Shopfloor**

*Dan Burkolter  
Eleni Pratsini, Jens  
Henoch*

**12:00 - 12:30: Agent-supported management systems in manufacturing: A cybernetic approach**

*Jens Henoch*

*Tuesday, Sep 3*

**Fuzzy Logic, Multicriteria Decision Making, Decision Theory 4**

*Room: HS 10*

*Chair: Armin Scholl*

**11:30 - 12:00: An iterative method for decentralized resource allocation problems with multiple criteria**

*Rudolf Vetschera  
Christian Stummer*

**12:00 - 12:30: Multiple Criteria Analysis of Facilities Management Alternatives**

*Natalija Lepkova  
E.K. Zavadskas, A.  
Kaklauskas*

*Tuesday, Sep 3*

**Marketing and Data Analysis 3**

*Room: HS 2*

*Chair: N.N.*

**11:30 - 12:00: Opinions on Internet and Book Buying Behavior Among Faculty**

*Orhan Erdem  
Nilly Al-Abdulsalam,  
Zakia Al-Adawi*

**12:00 - 12:30: GPRS users' expectations about UMTS: A consumer poll**

*Gerald Steiner  
J.H. Schuetze*

*Tuesday, Sep 3*

**Transportation and Traffic 4**

*Room: HS 3*

*Chair: Jörn Schönberger*

**11:30 - 12:00: Experimental Analysis of Algorithms for Goods Transportation Networks with Telematic Services**

*Giovanni Storchi  
Paolo Dell'Olmo, Monica  
Gentili*

**12:00 - 12:30: Ein Verfahrensverbund zur Lösung des Pickup-And-Delivery-Selection-Problems**

*Jörn Schönberger  
Herbert Kopfer, Dirk  
Mattfeld*

*Tuesday, Sep 3*

**Scheduling and Project Management 7**

*Room: HS 4*

*Chair: Dario Pacciarelli*

**11:30 - 12:00: Sequence coordination in supply chains**

*Dario Pacciarelli  
A. Agnetis, N.G. Hall*

**12:00 - 12:30: Sorting with Line Storage Systems**

*Thomas Epping  
Winfried Hochstättler*

Tuesday, Sep 3

**Health**

Room: HS 5

Chair: Margit  
Sommersguter-Reichmann

**11:30 - 12:00: Modelling the effects of the Austrian inpatient reimbursement system on length-of-stay distributions**

Marion Sabine Rauner  
Achim Zeileis,  
Michaela-Maria  
Schaffhauser-Linzatti,  
Kurt Hornik

**12:00 - 12:30: Benchmarking von Krankenanstalten: Analyse des Einflusses von Peers**

Margit  
Sommersguter-Reichmann

Tuesday, Sep 3

**Network Optimization 1**

Room: HS 6

Chair: Riccardo Gismondi

**11:30 - 12:00: The Capacitated  $m$ -Ring-Star Problem**

Roberto Baldacci  
M. Dell'Amico, Juan Jose  
Salazar Gonzalez

**12:00 - 12:30: A Generic Methodology for Emulation and Performance Evaluation of Scheduling Algorithm of Computer Networks**

Marta Barria  
Reinaldo Vallejos, Isabel  
Martín, Marco Aravena.

Tuesday, Sep 3

**Control Theory, Systems Dynamics, Dynamic Games 4**

Room: HS 7

Chair: Gernot Tragler

**11:30 - 12:00: DNS Thresholds in Optimal Control of Illicit Drug Use**

Gernot Tragler

**12:00 - 12:30: Bifurcation Analysis of Optimal Methadone Maintenance Treatment**

Caius Gavrila  
G. Tragler, G. Feichtinger,  
J. P. Caulkins

Tuesday, Sep 3

**Continuous Optimization 3**

Room: HS 8

Chair: Jean-Philippe Vial

**11:30 - 12:00: Convergence of Path-Following Newton Methods via Classical Penalty-Barrier Results**

Christian Grossmann

**12:00 - 12:30: Efficient Globalization of the Convergence of Newton-Type Methods**

Ekaterina Kostina  
H. G. Bock, J. P. Schloeder

Tuesday, Sep 3

**Stochastic and Dynamic Programming 3**

Room: HS 9

Chair: Istvan Deak

**11:30 - 12:00: Analyzing Shiryaev's Detection Problem for Brownian Motion Using Linear Programming**

Kurt Helmes

**12:00 - 12:30: Pricing of Multidimensional Resources in Revenue Management (Multidimensional Dynamic Stochastic Knapsack Problem)**

Jens Feller

*Tuesday, Sep 3*

**TSP 2**

*Room: HS B*

*Chair: Bernhard Fleischmann*

**11:30 - 12:00: Fast Cactus Construction for Support Graphs of TSP-Related Problems**

*Klaus Wenger  
Gerhard Reinelt*

**12:00 - 12:30: A Multilevel Scheme for the Traveling Salesman Problem**

*Bouhmala Noureddine*

*Tuesday, Sep 3*

**Scheduling and Project Management 8**

*Room: HS C*

*Chair: Paolo Dell'Olmo*

**11:30 - 12:00: Scheduling Austrian and German Professional Soccer Leagues**

*Andreas Drexl  
Thomas Bartsch, Stefan Kröger*

**12:00 - 12:30: Single machine scheduling problem with discretely-divisible resource dependent setup and processing times**

*Maciej Lichtenstein  
Adam Janiak*

*Tuesday, Sep 3*

**Neural Networks**

*Room: E0.05*

*Chair: Hans-Georg Zimmermann*

**11:30 - 12:00: Forecasting with leading economic indicators – a Neural Network Approach**

*Timotej Jagric*

**12:00 - 12:30: Undershooting: Modeling Dynamical Systems by Time Grid Refinements**

*Hans-Georg Zimmermann  
Christoph Tietz, Ralph Neuneier, Ralph Grothmann*

*Tuesday, Sep 3*

**Credit risk and Hedge funds**

*Room: E1.05*

*Chair: Stefan Huschens*

**11:30 - 12:00: The combined use of ETA and FTA for diagnosing and evaluating the risk exposures of Hedge Fund investment**

*Antonio Iovanella  
Dino Giancola, Paolo Mancuso*

**12:00 - 12:30: Konfidenzintervalle für Ausfallwahrscheinlichkeiten**

*Stefan Huschens  
Steffi Höse*

*Tuesday, Sep 3*

**Supply Chain Management 2**

*Room: HS 1*

*Chair: Bjarni Kristjansson*

**14:00 - 14:30: Sensitivity Analysis of Fuzzy Set Approach to Logistics Chains**

*Ludvik Bogataj*

Janez Usenik, Marija Bogataj

**14:30 - 15:00: Implementing Supply-Chain Optimisation Models in an Algebraic Modelling Language**

*Sandip Pindoria*

**15:00 - 15:30: Using the MPL Modeling System and the Optimax 2000 Component Library to create Embedded Optimization Applications.**

*Bjarni Kristjansson*

*Tuesday, Sep 3*

**Fuzzy Logic, Multicriteria Decision Making, Decision Theory 5**

*Room: HS 10*

*Chair: Hans-Georg Zimmermann*

**14:00 - 14:30: Fuzzy approach to the air traffic control**

*Janez Usenik*

**14:30 - 15:00: A Multiple Attribute Decision Method Using Quasi-fuzzy Computation Model**

*Chien-Chung Wang*

**15:00 - 15:30: A Ranking Method for Fuzzy Numbers Based on Extended Fuzzy Preference Relations**

*Hsuan-Shih Lee*

*Tuesday, Sep 3*

**Production 5**

*Room: HS 2*

*Chair: René Lind*

**14:00 - 14:30: The influence of the order waiting time on safety-stocks in a supply chain**

*G.P. Kiesmüller*

**14:30 - 15:00: Performance Analysis of Make to stock Supply chain using Discrete time queue**

*Sandeep Jain*

N.R.S. Raghavan

**15:00 - 15:30: Weshalb Qualitätsmanagement in der Produktentwicklung so früh wie möglich?**

*René Lind*

*Tuesday, Sep 3*

**Transportation and Traffic 5**

*Room: HS 3*

*Chair: Stefan Voß*

**14:00 - 14:30: VRP with interdependent Time Windows - A Case study for the Austrian Red Cross blood programme**

*Karl Dörner*

M. Gronalt, R.F. Hartl, M. Reimann, K. Zisser

**14:30 - 15:00: Optimal time control for the model of a discrete accumulation process in transport**

*Julius Rebo*

Ondrej Bartl

*Tuesday, Sep 3*

**Scheduling and Project Management 9**

*Room: HS 4*

*Chair: Edward Gimadi*

**14:00 - 14:30: Lead Optimization for Pharmaceutical Research Projects**

*Rainer Kolisch*

Konrad Meyer

**14:30 - 15:00: Path Relinking Strategy for the Resource Constrained Project Scheduling Problem**

*Artem Stolyar*

**15:00 - 15:30: On the Project Scheduling Problem under Stored Resource Constraints of an arbitrary sign**

*Edward Gimadi*

S.V. Sevastianov

*Tuesday, Sep 3*

**Game Theory, Auctioning & Bidding, Experimental Economics 1**

*Room: HS 5*

*Chair: Ulrike Leopold*

**14:00 - 14:30: The Management Game SINTO-Market**

*Tanja Feit*

*Susanne Lind, Ulrike Leopold*

**14:30 - 15:00: The Demonstration of The Electronic Management Game**

*Susanne Lind-Braucher*

*Tanja Feit, Ulrike Leopold*

**15:00 - 15:30: The Results of the Elektronik Management Game**

*Ulrike Leopold*

*Tanja Feit, Susanne Lind*

*Tuesday, Sep 3*

**Network Optimization 2**

*Room: HS 6*

*Chair: Riccardo Gismondi*

**14:00 - 14:30: On the Moments of the Overflow and Freed Carried Traffic for the GI/M/C/0 System**

*Manfred Brandt*

**14:30 - 15:00: Cost Optimized Layout of Fibre Optic Networks in the Access Net Domain**

*Peter Bachhiesl*

*G. Paulus, M. Prosegger, J. Werner, H. Stögner*

**15:00 - 15:30: Subnet decomposition in telecommunication by combinatorial stochastic optimization.**

*Georg Kern*

*R. Gismondi, W. Garn, G. Pflug*

*Tuesday, Sep 3*

**Control Theory, Systems Dynamics, Dynamic Games 5**

*Room: HS 7*

*Chair: Gustav Feichtinger*

**14:00 - 14:30: History dependence without unstable steady state: a non-differentiable framework**

*Richard Hartl*

*Peter M. Kort*

**14:30 - 15:00: Keeping up with the technology pace: a DNS-curve and a limit cycle in a technology investment decision problem**

*Josef L. Haunschmied*

*Gustav Feichtinger, Richard F. Hartl, Peter M. Kort*

**15:00 - 15:30: Intensity Splitting Revisited: Hamilton-Hopf Bifurcations and DNS-Curves**

*Gustav Feichtinger*

*Alois Steindl*

*Tuesday, Sep 3*

**Simulation 2**

*Room: HS 8*

*Chair: Claus-Burkard Boehnlein*

**14:00 - 14:30: Einsatz eines Simulationswerkzeuges im Zusammenhang mit Blended Learning**

*Torsten Reiners*

*C. Frank, I. Sassen, L. Suhl, S. Voß*

**14:30 - 15:00: Standards fuer Modellierung und Simulation**

*Claus-Burkard Boehnlein*

**15:00 - 15:30: Fuzzy simulation of job shop scheduling system using beta shape membership function**

*Sohrab Khanmohammadi*

*A. Ghanbari, S. Hajforoosh, J.Jassbi*

*Tuesday, Sep 3*

**Stochastic and Dynamic Programming 4**

*Room: HS 9*

*Chair: David Morton*

**14:00 - 14:30: Integrating Stochastic Programming and Decision Tree Techniques in Land Conversion Problems**

*Valentina Bosetti*

*Enza Messina*

**14:30 - 15:00: Multi-stage dynamic production stock planning which performed in West Machine Company**

*H. Ahmet Akdeniz*

*Mehmet Aksarayli*

**15:00 - 15:30: Gas Pipeline Optimization under Uncertainty**

*Markus Westphalen*

*Tobias Heidenreich, Rüdiger Schultz*

*Tuesday, Sep 3*

**Various applications 1**

*Room: HS B*

*Chair: Ulrich Pferschy*

**14:00 - 14:30: Algorithmic Analysis of Expression Data with Polyhedral Structures**

*Stefan Pickl*

**14:30 - 15:00: Modelling and Optimization of Cutting Problems in the Paper Industry**

*Christian Zelle*

**15:00 - 15:30: An ant colony heuristic algorithm to solve the water network design problem**

*Efstratios Rappos*

*Eleni Hadjiconstantinou*

*Tuesday, Sep 3*

**Scheduling and Project Management 10**

*Room: HS C*

*Chair: Peter Brucker*

**14:00 - 14:30: Multiprocessor Task Scheduling Systems with Machine Saturation Property**

*Monica Gentili*

*Paolo Dell'Olmo*

**14:30 - 15:00: Exact and approximation algorithms for a two-machine flow shop with a single robot**

*Grzegorz Pawlak*

*Jacek Blazewicz, Andrzej Krygier, Frank Werner*

**15:00 - 15:30: Complex job-shop scheduling problems**

*Peter Brucker*

*Mikhail Kovalyov*

*Tuesday, Sep 3*

**Forecasting**

*Room: E0.05*

*Chair: Robert Volcjak*

**14:00 - 14:30: Inventory Management of Products with Short Life Cycles**

*Ulrich Thonemann*

*Kaijie Zhu*

**14:30 - 15:00: Estimating Multivariate Conditional Distributions - An Application to the Truck Demand Forecast**

*Eric A. Stütze*

*Tomas Hrycej*

**15:00 - 15:30: Non-measurable Leading Indicators Model**

*Robert Volcjak*

*Velimir Bole*

*Tuesday, Sep 3*

**Risk measurement**

*Room: E1.05*

*Chair: Georg Pflug*

**14:00 - 14:30: Is Conditional Value at Risk (Tail-VaR) a good multiperiod risk measure?**

*Philippe Artzner*

**14:30 - 15:00: Regulatory Impacts on Credit Portfolio Management**

*Ursula Theiler*

*Stanislav Uryasev*

**15:00 - 15:30: Mehrperioden-Risikomaße und konvexe Optimierung**

*Georg Pflug*

*Tuesday, Sep 3*

**Logistics 1**

*Room: HS 1*

*Chair: Karl Inderfurth*

**17:00 - 17:30: A reverse logistics model with integer setup numbers**

*Knut Richter  
Imre Dobos*

**17:30 - 18:00: Lotsizing in a production system with rework and product deterioration**

*Karl Inderfurth  
Gerd Lindner, Nikolaos  
Rahaniotis*

*Tuesday, Sep 3*

**Fuzzy Logic, Multicriteria Decision Making, Decision Theory 6**

*Room: HS 10*

*Chair: Heiner Micko*

**17:00 - 17:30: Wissensrevision in einer MaxEnt/MinREnt-Umgebung**

*Wilhelm Rödder  
Elmar Reucher*

**17:30 - 18:00: Von der Prädikatenlogik zur unternehmerischen Entscheidungsunterstützung**

*Friedhelm Kulmann  
Wilhelm Rödder*

*Tuesday, Sep 3*

**Production 6**

*Room: HS 2*

*Chair: Richard Pibernik*

**17:00 - 17:30: A New Demand Forecast Model Which Allows for Seasonal Fluctuation, Price Elasticity And Resource Restrictions**

*Herbert Jodlbauer  
Joachim Althaler*

**17:30 - 18:00: Einsatz innovativer Planungsmodelle zur Unterstützung des Advanced Available to Promise**

*Richard Pibernik*

*Tuesday, Sep 3*

**Transportation and Traffic 6**

*Room: HS 3*

*Chair: Dirk Christian  
Mattfeld*

**17:00 - 17:30: Optimal Sorting Machine Allocation in the Postal Distribution Network**

*Jaroslav Janáček*

**17:30 - 18:00: The Allocation of Storage Space in a Capacitated Multi-Period Transshipment Problem**

*Dirk Christian Mattfeld*

*Tuesday, Sep 3*

**Scheduling and Project Management 11**

*Room: HS 4*

*Chair: Erwin Pesch*

**17:00 - 17:30: Combination of branch and bound algorithm and dynamic programming for project management problem**

*Vladimir Servakh  
Ekaterina Bubnova*

**17:30 - 18:00: A New Setup Cost Oriented Resource Leveling Measure for Projects**

*László Torjai*

*Tuesday, Sep 3*

**Public Economy II**

*Room: HS 5*

*Chair: Margit  
Sommersguter-Reichmann*

**17:00 - 17:30: Use Of  
An Automatic Meter Reading For Optimizing Public Utility Consumption**

*Kaveh Sheibani*

**17:30 - 18:00: The Risk of  
Pension Plans in Central  
Europe**

*David Bogataj  
Robert Vodopivec*

*Tuesday, Sep 3*

**Distributed Applications**

*Room: HS 6*

*Chair: Georg Kern*

**17:00 - 17:30: Ein Algorithmus zur sicheren elektronischen Stimmabgabe über das Internet**

*Alexander Prosser*

**17:30 - 18:00: Calling for the integration of Information Technology and Operations Research: the Low Fare Search (LFS) problem**

*Guglielmo Guastalla  
Benoit Janin*

*Tuesday, Sep 3*

**Control Theory, Systems Dynamics, Dynamic Games 6**

*Room: HS 7*

*Chair: Pierre Kunsch*

**17:00 - 17:30: Fuzzy Control in System Dynamics modelling**

*Pierre Kunsch  
J. Springael, J. P. Brans*

**17:30 - 18:00: Stochastic Optimal Control of Infinite-horizon Non-autonomous Problems**

*David W. K. Yeung*

*Tuesday, Sep 3*

**Continuous Optimization 4**

*Room: HS 8*

*Chair: Florian Jarre*

**17:00 - 17:30: Extraproximal methods for equilibrium and game problems with coupled constraints**

*Anatoly Antipin*

*Tuesday, Sep 3*

**Stochastic and Dynamic Programming 5**

*Room: HS 9*

*Chair: Petr Lachout*

**17:00 - 17:30: Simulated Annealing Type Algorithm for Continuous Stochastic Optimization**

*Mahmoud Alrefaei*

**17:30 - 18:00: Selecting the Best Stochastic System when the Number of Alternatives is Large**

*Ameen Alawneh  
Mahmoud Alrefaei*

*Tuesday, Sep 3*

**Network problems 1**

*Room: HS B*

*Chair: Marco E. Lübbecke*

**17:00 - 17:30: On Flows Saturating an Edge in Undirected Networks**

*Madiagne Diallo*

Dominique Barth, Pascal Berthome

**17:30 - 18:00: Parametric Capacity and Multi-Terminal Networks Flows**

*Madiagne Diallo*

Horst W. Hamacher

*Tuesday, Sep 3*

**Assignment and arrangement 1**

*Room: HS C*

*Chair: Stefan Pickl*

**17:00 - 17:30: On Optimal Linear Arrangements of Weighted Graphs**

*Victor Lepin*

**17:30 - 18:00: On the Weighted Simultaneous Consecutive Ones Problem**

*Marcus Oswald*

Gerhard Reinelt

*Tuesday, Sep 3*

**Classification**

*Room: E0.05*

*Chair: Constantine Loucopoulos*

**17:00 - 17:30: Spectroscopic Data - A Classification Problem**

*Vera Hofer*

**17:30 - 18:00: Three-group classification using goal programming**

*Constantine Loucopoulos*

*Tuesday, Sep 3*

**Probability and Statistics in Finance and Insurance 1**

*Room: E1.05*

*Chair: Hansjörg Albrecher*

**17:00 - 17:30: Selecting Key Risk Factors of Worst Case Scenarios**

*Thomas Breuer*

Dietmar Maringer, Filip Pistovcak

**17:30 - 18:00: On some extensions of the Cramer-Lundberg model in risk theory**

*Hansjörg Albrecher*

*Wednesday, Sep 4*

**Supply Chain Management 3**

*Room: HS 1*

*Chair: Bernhard Fleischmann*

**9:00 - 9:30: Fischer SKI: Bessere Prognosen durch Softwareunterstützung**

*Hans-Hartwig Schulz*

**9:30 - 10:00: Strategische Planung von Produktionsnetzwerken in der Automobilindustrie**

*Bernhard Fleischmann  
Peter Henrich*

*Wednesday, Sep 4*

**Fuzzy Logic, Multicriteria Decision Making, Decision Theory 7**

*Room: HS 10*

*Chair: Rudolf Vetschera*

**9:00 - 9:30: From Climate Predictions to Socio-Economic Forecasts**

*Hans-Georg Zimmermann  
Martin Fischer, Ralph Grothmann*

**9:30 - 10:00: FUZZY LOGIC Optimisation of Budget Planning of a Municipality**

*Srečko Devjak  
Jože Benčina*

*Wednesday, Sep 4*

**Metaheuristics 1**

*Room: HS 2*

*Chair: Peter Greistorfer*

**9:00 - 9:30: Ill-conditioned QAP instances**

*Eric Taillard  
Drezner, Hahn*

**9:30 - 10:00: Hard Instances for the Uncapacitated Facility Location Problem**

*Yuri Kochetov  
Dmitrii Ivanenko*

*Wednesday, Sep 4*

**Transportation and Traffic 7**

*Room: HS 3*

*Chair: Per Olov Lindberg*

**9:00 - 9:30: Online Dispatching of Automobile Service Units in Real Time**

*Luis Torres  
Martin Groetschel, Sven O. Krumke, Joerg Rambau*

**9:30 - 10:00: Multi-Class User Equilibria under Social Marginal Cost Pricing**

*Per Olov Lindberg  
Leonid Engelson, Maria Daneva*

*Wednesday, Sep 4*

**Scheduling and Project Management 12**

*Room: HS 4*

*Chair: Thomas Epping*

**9:00 - 9:30: Operatives Konfliktmanagement im Projekt**

*André Ahuja*

**9:30 - 10:00: The imitation analysis of the Product Sharing Agreement in contemporary Russia**

*Artem Protsenko*

Wednesday, Sep 4

**Education II**

Room: HS 5

Chair: Marjan Simoncic

**9:00 - 9:30: Vintserving: new virtual technology of collective multi-discipline training and research in a service area**

*Olga Popova*

Vyacheslav Filimonov

**9:30 - 10:00: Masters Logistics Courses in the USA: Lessons for Europe**

*Marija Bogataj*

Wednesday, Sep 4

**Energy, Environment 3a**

Room: HS 6

Chair: Michael Wigbels

**9:00 - 9:30: On On-line systems for short-term forecasting for energy systems**

*Henrik Aalborg Nielsen*

Torben Skov Nielsen,

Henrik Madsen

**9:30 - 10:00: Middle Term Optimisation of Power Purchase Portfolios**

*Gorden Spangardt*

Michael Lucht, Wilhelm

Althaus

Wednesday, Sep 4

**Continuous Optimization 5**

Room: HS 8

Chair: Ekaterina Kostina

**9:00 - 9:30: Utilization of the Level Method for Dual Decomposition in Convex Quadratic Programming**

*Matthias Knobloch*

**9:30 - 10:00: Starting Interior Point Methods: What is the typical situation at the start?**

*Petra Huhn*

Wednesday, Sep 4

**General techniques 2**

Room: HS B

Chair: Michael Jünger

**9:00 - 9:30: SCIL - Symbolic Constraints in Integer Linear Programming**

*Matthias Elf*

**9:30 - 10:00: Ein interaktives Schnittebenenkonzept für ganzzahlige lineare Vektoroptimierungsprobleme**

*Walter Habenicht*

Wednesday, Sep 4

**Assignment and arrangement 2**

Room: HS C

Chair: Rainer Burkard

**9:00 - 9:30: On solvability of multi-index axial assignment problem on single-cyclic permutations and the algorithm for three-index case.**

*Natalie Korkishko*

E. Kh. Gimadi

**9:30 - 10:00: Bounds for Quadratic Assignment Problems Using SDP and Bundle Methods**

*Renata Sotirov*

Franz Rendl

*Wednesday, Sep 4*

**Supply Chain Management 4**

*Room: HS 1*

*Chair: Heinrich Kuhn*

**11:30 - 12:00: Decision Support for Cooperative Economic Ordering**

*Stefan Minner*

**12:00 - 12:30: Methoden zur Leistungsanalyse im Supply Chain Planning**

*Heinrich Kuhn  
Georg N. Krieg*

*Wednesday, Sep 4*

**Fuzzy Logic, Multicriteria Decision Making, Decision Theory 8**

*Room: HS 10*

*Chair: Andreas Kleine*

**11:30 - 12:00: Metadata Search: A New Approach to Natural Language Database Interface**

*Veera Boonjing  
Cheng Hsu*

**12:00 - 12:30: Innovation, Operations Research & Decision Support in the Military**

*Heiner Micko*

*Wednesday, Sep 4*

**Metaheuristics 2**

*Room: HS 2*

*Chair: Peter Greistorfer*

**11:30 - 12:00: Combining Branch-and-Cut-and-Price with a Memetic Algorithm for Biconnectivity Augmentation**

*Ivana Ljubic  
Petra Mutzel, Guenther Raidl*

**12:00 - 12:30: Ideas on the value of heuristics**

*Peter Greistorfer  
Stefan Voß*

*Wednesday, Sep 4*

**Transportation and Traffic 8**

*Room: HS 3*

*Chair: Charles Fleurent*

**11:30 - 12:00: Decision-aid Methodology for the School Bus Routing and Scheduling Problem**

*Michela Spada  
M. Bierlaire, Th. M. Liebling*

**12:00 - 12:30: CrewOpt: A Column Generation Method for Transit Crew Scheduling**

*Charles Fleurent  
Lise Séguin*

*Wednesday, Sep 4*

**Scheduling and Project Management 13**

*Room: HS 4*

*Chair: Michal Tanas*

**11:30 - 12:00: Minimizing the Weighted Number of Early and Tardy Jobs in the Stochastic Single Machine Scheduling Problem**

*H. M. Soroush  
T. M. Al-Khamis*

**12:00 - 12:30: Scheduling of coupled tasks**

*Michal Tanas  
Jacek Blazewicz, Klaus Ecker, Tamas Kis*

Wednesday, Sep 4

**Game Theory, Auctioning & Bidding, Experimental Economics 2**

Room: HS 5

Chair: Tanja Feit

**11:30 - 12:00: Fund of Funds: Information for Fund-Picking, An Empirical Study**

*Alexander Mylius*

U. Leopold-Wildburger,  
J.H. Schuetze

**12:00 - 12:30: Minimum cost spanning tree games and population monotonic allocation schemes**

*Henk Norde*

Stefano Moretti, Stef Tijs

Wednesday, Sep 4

**Energy, Environment 3b**

Room: HS 6

Chair: Michael Wigbels

**11:30 - 12:00: Nonlinear Optimization in CHP Applications**

*Michael Wigbels*

M. Lucht, W. Althaus

Wednesday, Sep 4

**Control Theory, Systems Dynamics, Dynamic Games 7**

Room: HS 7

Chair: Isabel Alonso Magdaleno

**11:30 - 12:00: Impact of Feedback Loop on Group Decision Process when Applying System Dynamics Simulators**

*Andrej Skraba*

Miroljub Kljajic

**12:00 - 12:30: The Medical Formation in the Spanish Health System. Dynamic Analysis**

*Isabel Alonso Magdaleno*

Wednesday, Sep 4

**Continuous Optimization 6**

Room: HS 8

Chair: Oliver Stein

**11:30 - 12:00: Nonconvex Duality: Theory and Applications**

*Mirjam Duer*

**12:00 - 12:30: Second order optimality conditions for  $C^{1,1}$  programs and their application to solution stability**

*Diethard Klatte*

Bernd Kummer

Wednesday, Sep 4

**Stochastic and Dynamic Programming 6**

Room: HS 9

Chair: Kurt Helmes

**11:30 - 12:00: A Remark on Quantitative Stability and Empirical Estimates in Stochastic Optimization**

*Vlasta Kankova*

Michal Houda

**12:00 - 12:30: State Estimation in Radial Distribution Networks**

*M. D. Nimrihter*

G. Bojkovic, V. Bajovic, Z. Radojevic

*Wednesday, Sep 4*

**Network problems 2**

*Room: HS B*

*Chair: Stefan Nickel*

**11:30 - 12:00: New Heuristics and Lower Bounds for the Min-Max  $k$ -Chinese Postman Problem**

*Dino Ahr  
Gerhard Reinelt*

**12:00 - 12:30: Max-Flow Min-Cut Duality for a Paint Shop Problem**

*Winfried Hochstättler  
Thomas Epping, Marco Luebecke*

*Wednesday, Sep 4*

**Location 1**

*Room: HS C*

*Chair: Kathrin Klamroth*

**11:30 - 12:00: Center Hub Location Problems**

*Horst W. Hamacher  
Andreas Ernst, Houyuan Jiang, Mohan Krishnamoorthy, Gerhard Woeginger*

**12:00 - 12:30: Solving discrete minimax location problems on networks**

*Gennady Zabudsky  
Dmitry Filimonov*

*Wednesday, Sep 4*

**DEA**

*Room: E0.05*

*Chair: Mikulas Luptacik*

**11:30 - 12:00: Generalization and construction of economic functions in Data Envelopment Analysis**

*Vladimir Krivonozhko  
O.B. Utkin, A.V. Volodin, I.A. Sablin*

**12:00 - 12:30: Determining Feasible Interval For Weights in Data Envelopment Analysis, Using Goal Programming With Imperical Study**

*Naghi Shoja  
A. Memariani, F. Hosseinzadeh Lotfi, N. Shoja*

*Wednesday, Sep 4*

**Financing and Investment**

*Room: E1.05*

*Chair: Georg Pflug*

**11:30 - 12:00: Asymmetrische Informationsverteilung und optimale Kontraktgestaltung**

*Claudia Fink*

**12:00 - 12:30: The Economic Life of Industrial Equipment Reconsidered**

*Markus Ricke  
Andreas Pflingsten*

Wednesday, Sep 4

**Production 7**

Room: HS 1

Chair: Ulrich Thonemann

**14:00 - 14:30: The Optimal Schedule for the Technological Process of Semiconductor Production**

*Valerie V. Trofimov*  
Alex O. Hluhov

**14:30 - 15:00: Scheduling of Rolling Ingots Production**

*Norbert Trautmann*

**15:00 - 15:30: Easy Quantification of Improved Spare Parts Policies**

*Ulrich Thonemann*  
Alex Brown, Warren Hausman

Wednesday, Sep 4

**Fuzzy Logic, Multicriteria Decision Making, Decision Theory 9**

Room: HS 10

Chair: Brigitte Werners

**14:00 - 14:30: Inner and Outer Approximations of Non-Convex Multicriteria Programs**

*Kathrin Klamroth*  
Jørgen Tind, Margaret M. Wiecek

**14:30 - 15:00: Distance Maximization in DEA**

*Andreas Kleine*  
Bodo Glaser

**15:00 - 15:30: Sensitivity Analysis by a Strategy Network Method**

*André Ahuja*

Wednesday, Sep 4

**Metaheuristics 3**

Room: HS 2

Chair: Eric Taillard

**14:00 - 14:30: Human-Guided Tabu Search**

*Gunnar W. Klau*  
Neal Lesh, Joe Marks,  
Michael Mitzenmacher

**14:30 - 15:00: Tabu Search Based on Lagrangian Relaxation for the Generalized Assignment Problem**

*Mikhail Paschenko*  
Yuri Kochetov

**15:00 - 15:30: Savings based Ants divide and conquer the VRP**

*Marc Reimann*  
Karl Doerner

Wednesday, Sep 4

**Transportation and Traffic 9**

Room: HS 3

Chair: Monica Gentili

**14:00 - 14:30: Covering population areas by railway stops**

*Michael Schröder*  
Anita Schöbel

**14:30 - 15:00: Optimal Rail Car Allocation Problems**

*Marco E. Lübbecke*  
Uwe T. Zimmermann

**15:00 - 15:30: Locating Sensors on Traffic Networks**

*Monica Gentili*  
P.B. Mirchandani

Wednesday, Sep 4

**Scheduling and Project Management 14**

Room: HS 4

Chair: Erwin Pesch

**14:00 - 14:30: A review of Neighborhood Structures for the Job-shop scheduling problem**

*Luca Di Gaspero*  
Igor Vian, Andrea Schaerf

**14:30 - 15:00: On minimizing average weighted completion time: A PTAS for job-shop scheduling with release dates**

*Aleksei Fishkin*  
Klaus Jansen, Monaldo Mastrolilli

**15:00 - 15:30: Constraint Propagation and Problem Decomposition: A Pre-processing Procedure for the Job Shop Problem**

*Erwin Pesch*  
Ulrich Dorndorf, To'an PhanHuy

*Wednesday, Sep 4*

**Game Theory, Auctioning & Bidding, Experimental Economics 3**

*Room: HS 5*

*Chair: Ulrike Leopold*

**14:00 - 14:30: Bounds & Likelihoods Procedure Revisited**

*Johannes Leitner*

O. Becker, U. Leopold-Wildburger, J.H. Schuetze

**14:30 - 15:00: Neues über Lotka-Volterra-Experimente**

*Ferri Leberl*

Ortwin Becker, Christoph Kohlbach, Alois Lafer, Ulrike Leopold-Wildburger

**15:00 - 15:30: Stability and Interaction in Cellular Games**

*Alexander Mehlmann*

*Wednesday, Sep 4*

**Energy, Environment 4**

*Room: HS 6*

*Chair: Axel Tuma*

**14:00 - 14:30: Optimization In The Liberalized Energy Market**

*Gerold Petritsch*

**14:30 - 15:00: Combining bottom-up and stochastic modelling for integrated risk assessment in the electricity market**

*Christoph Weber*

**15:00 - 15:30: Stochastic Optimization of Long Term Contracts in a Central American Electricity Market with Multiple Future Uncertainties**

*Georg Ostermaier*

Gido Haarbrücker, Karl Frauendorfer

*Wednesday, Sep 4*

**Control Theory, Systems Dynamics, Dynamic Games 8**

*Room: HS 7*

*Chair: Doris Behrens*

**14:00 - 14:30: Separable Programming in Optimal Control Problem**

*Lado Lenart*

**14:30 - 15:00: Delayed action and the stability of dynamical systems in Hilbert spaces**

*Miklavz Mastinsek*

**15:00 - 15:30: Maximum Principle for Age and Duration Structured Systems: a Tool for Optimal Prevention and Treatment of HIV**

*Vladimir Veliov*

Gustav Feichtinger, Tsvetomir Tsache

*Wednesday, Sep 4*

**Continuous Optimization 7**

*Room: HS 8*

*Chair: Petra Huhn*

**14:00 - 14:30: A statistical model for optimal resource allocation in global optimization**

*Tomas Hrycej*

**14:30 - 15:00: Process Optimisation via Conventional Factorial Designs and Simulated Annealing on a Path of Steepest Ascent for a CSTR**

*Pongchanun Luangpaiboon*

**15:00 - 15:30: An Algorithm for LC1 Optimization**

*Nada Djuranovic-Milicic*

*Wednesday, Sep 4*

**Stochastic and Dynamic Programming 7**

*Room: HS 9*

*Chair: Ruediger Schultz*

**14:00 - 14:30: Splitting and localization of the epi-topology combined with randomness**

*Petr Lachout*

**14:30 - 15:00: Application of the entropy-like proximal method in the solution of the probabilistic constrained linear programming problem**

*Éva Komáromi*

**15:00 - 15:30: Probabilistic Subset Selection in Branch-and-Bound Algorithms**

*Volker Stix  
Mirjam Dür*

Wednesday, Sep 4

**Computational complexity**

*Room: HS B*

*Chair: Klaus Jansen*

**14:00 - 14:30: The complexity of some problems on maximal independent sets in graphs**

*Yury Orlovich  
Igor Zverovich*

**14:30 - 15:00: Some Improvement on the Complexity of Newton's Method for LFCO Problems**

*Qin Wang  
Jianzhong Zhang*

**15:00 - 15:30: A comparison of heuristic methods for path decompositions of graphs**

*Peter Tittmann  
Udo Junghans*

Wednesday, Sep 4

**Multiple objective/parametric/stable integer programming**

*Room: HS C*

*Chair: Friedrich Juhnke*

**14:00 - 14:30: An Algorithm for Optimizing a Linear Function Over the Integer Efficient Set**

*Djamal Chaabane  
Moncef Abbas*

**14:30 - 15:00: On Stability of some Integer Programming Algorithms**

*Alexander Kolokolov  
Marina Devyaterikova*

Wednesday, Sep 4

**Data Mining**

*Room: E0.05*

*Chair: Lutz Beinsen*

**14:00 - 14:30: Determinanten eines erfolgreichen Data-Mining-Einsatzes**

*Andreas Hilbert*

**14:30 - 15:00: Integrating Exchange Rate Theory in Data Mining**

*Bernd Brandl*

**15:00 - 15:30: The Ability of Artificial Neural Networks to Exploit Non-Linearities by Data Mining Models Compared to Statistical Methods**

*Lutz Beinsen  
Bernd Brandl*

Wednesday, Sep 4

**Financial Markets 2**

*Room: E1.05*

*Chair: Niklas Wagner*

**14:00 - 14:30: Die Eignung des Earnings Yield Gap zur Vorhersage von Aktienmarktkorrekturen**

*Klaus Berge  
Hermann Locarek-Junge*

**14:30 - 15:00: Die Modellierung bedingter Schiefe in Finanzzeitreihen**

*Michaela Nettekoven*

**15:00 - 15:30: On Adaptive Tail Index Estimation for Financial Return Models**

*Niklas Wagner  
Terry A. Marsh*

Wednesday, Sep 4

**Logistics 2**

*Room: HS 1*

*Chair: Peter Köchel*

**17:00 - 17:30: Design of Genetic Algorithms for on-line sale**

*Pasquale Carotenuto  
Marco Augugliaro*

**17:30 - 18:00: Optimal control of multi-echelon inventory systems using simulation optimisation**

*Peter Köchel  
Ulf Nielaender*

Wednesday, Sep 4

**Fuzzy Logic, Multicriteria Decision Making, Decision Theory 10**

*Room: HS 10*

*Chair: Walter Habenicht*

**17:00 - 17:30: A Method For Generating All Efficient Solutions of Integer and 0 – 1 Multi-Objective Linear Programming Problem**

*Naghi Shoja  
G. R. Jahanshahloo, F.  
Hosseinzadeh Lotfi, G.  
Tohidi*

**17:30 - 18:00: A Method For Solving 0 – 1 Multi-Objective Linear Programming Problem, Using Data Envelopment Analysis**

*Farhad Hosseinzadeh  
Lotfi  
G. R. Jahanshahloo, N.  
Shoja, G. Tohidi*

Wednesday, Sep 4

**Metaheuristics 4**

*Room: HS 2*

*Chair: Eric Taillard*

**17:00 - 17:30: Hybridization of a GA based heuristic for the set covering problem with a network based heuristic**

*Farhad Djannaty*

Wednesday, Sep 4

**Transportation and Traffic 10**

*Room: HS 3*

*Chair: Joachim R. Daduna*

**17:00 - 17:30: Introducing Path Relinking to Multi Objective Combinatorial Optimization**

*Martin Josef Geiger*

**17:30 - 18:00: Innovative Lösungen im bimodalen Transport Straße / Binnenwasserstraße**

*Joachim R. Daduna  
Johannes Schröter*

Wednesday, Sep 4

**Education III**

*Room: HS 5*

*Chair: Adolf Stepan*

**17:00 - 17:30: Fallstudie Berger Elektromotoren: Inhalt und Lernziele**

*Paul Staehly  
Christoph Haehling von  
Lanzenauer*

**17:30 - 18:00: Berger Elektromotoren: Umsetzung für WWW-basiertes Lernen**

*Jeannette Trela  
Christoph Haehling von  
Lanzenauer, Paul Staehly*

*Wednesday, Sep 4*

**Continuous Optimization 8**

*Room: HS 8*

*Chair: Florian Jarre*

**17:00 - 17:30: External Centers Method for Lipschitz Programming on Unit Simplex**

*Vitaly Zhadan*

**17:30 - 18:00: Optimization on *OC*-convex sets**

*Vladimir Naidenko*

*Wednesday, Sep 4*

**Approximation with guaranteed performance 1**

*Room: HS C*

*Chair: Winfried Hochstättler*

**17:00 - 17:30: Minimizing a supermodular set function on comatroids**

*Nickolay Valeryevich Linker  
Victor Il'ev*

**17:30 - 18:00: Geometric Methods of Solving Partition Problems**

*Alexey Baburin*

*Wednesday, Sep 4*

**Probability and Statistics in Finance and Insurance 2**

*Room: E1.05*

*Chair: Erzsebet Kovacs*

**17:00 - 17:30: Multicriterion Analysis based on Multivalued Stochastic Dominance and Probabilistic Dominance in financial analysis**

*Grazyna Trzpiot*

**17:30 - 18:00: Investment climate for pension funds**

*Erzsebet Kovacs*

Thursday, Sep 5

**Supply Chain Management 5**

Room: HS 1

Chair: Norbert Trautmann

**9:00 - 9:30: Ein dynamisches Verhandlungsmodell zur Bestimmung gemeinsamer Bestell- und Produktionspolitiken in Supply Chains**

*Eric Sucky*

**9:30 - 10:00: Modelling the interaction between operational and financial decisions in the inventory pooling of repairable spare parts problem**

*Hartanto Wong*

Dirk Cattrysse, Dirk Van Oudheusden

Thursday, Sep 5

**Production 8**

Room: HS 2

Chair: Martin Grunow

**9:00 - 9:30: A new model for the parallel machine lot-sizing problem**

*Daniel Quadt*

**9:30 - 10:00: Intra-site logistics in the production of chemical commodities**

*Martin Grunow*

Hans-Otto Günther

**10:00 - 10:30: A computer tomography based approach to optimal log cutting**

*Eranda Cela*

Adnand Dragoti,  
Alexander Petutschnigg,  
Ulrich Pferschy, Alfred Rinnhofer

Thursday, Sep 5

**Banking and Insurance**

Room: HS 3

Chair: Mario Straßberger

**9:00 - 9:30: Separation of loan and deposit policy: Some empirical results for German banks**

*Johannes Jaenicke*

**9:30 - 10:00: Verfahren zur Risikokapitalallokation im Eigenhandel von Banken**

*Mario Straßberger*

Thursday, Sep 5

**Scheduling and Project Management 15**

Room: HS 4

Chair: Dario Pacciarelli

**9:00 - 9:30: Multi-agent scheduling models**

*Alessandro Agnetis*

Pitu B. Mirchandani, Dario Pacciarelli, Andrea Pacifici

**9:30 - 10:00: On Multi-processor Scheduling under Multiple Objectives**

*Vittorio Bilò*

Michele Flammini

**10:00 - 10:30: Scheduling Packets and Services in Satellite UMTS**

*Mara Servilio*

Claudio Arbib, Vincenzo Arvia

Thursday, Sep 5

**Game Theory, Auctioning & Bidding, Experimental Economics 4**

Room: HS 5

Chair: Theodorus S. H. Driessen

**9:00 - 9:30: Competition and cooperation in non-centralized linear production games**

*Justo Puerto*

F.R. Fernandez, M.G.

Fiestras-Janeiro, I.

Garcia-Jurado

**9:30 - 10:00: Strategies and Relative Skill in Poker**

*Marcel Dreef*

Peter Borm, Ben van der

Genugten

**10:00 - 10:30: A survey on the potential approach in cooperative game theory**

*Theodorus S. H. Driessen*

Thursday, Sep 5

**Energy, Environment 5**

Room: HS 6

Chair: Peter Letmathe

**9:00 - 9:30: Gestaltung von Stoffstrom-Netzwerken zum Produktrecycling**

*Grit Walther*  
Thomas Spengler

**9:30 - 10:00: Gestaltung integrierter Produktions- und Rückführungsnetzwerke**

*Baptiste Lebreton*  
Jürgen Friedl, Stephan Franke, Axel Tuma

**10:00 - 10:30: Environmental Coordination of Supply Chain Networks Based on Fuzzy Sets**

*Jürgen Friedl*  
Baptiste Lebreton, Axel Tuma

Thursday, Sep 5

**Continuous Optimization 9**

Room: HS 8

Chair: Christian Grossmann

**9:00 - 9:30: On the utility of hidden bilevel structures in applied optimization**

*Oliver Stein*

**9:30 - 10:00: Constraint Qualifications and Necessary Optimality Conditions in Terms of Convexifiers**

*Xiao Feng Li*  
Jian Zhong Zhang

**10:00 - 10:30: Constrained Optimization Involving Expensive Function**

*Herbert Hamers*  
R. Brekelmans, L. Driessen, D. den Hertog

Thursday, Sep 5

**Meta heuristics**

Room: HS B

Chair: Gunnar W. Klau

**9:00 - 9:30: An evolutionary algorithm for Bayesian network triangulation**

*Tomasz Lukaszewski*

**9:30 - 10:00: Meta-Heuristiken in virtuellen Lernumgebungen**

*Torsten Reiners*  
Imke Sassen, Stefan Voß

**10:00 - 10:30: Simulated Annealing type metaheuristics – to cool or not to cool**

*Janez Zerovnik*

Thursday, Sep 5

**General techniques 1**

Room: HS C

Chair: Bettina Klinz

**9:00 - 9:30: Polynomially Solvable Cases of the Bilevel Programming Problems**

*Alexander Plyasunov*  
Yuri Kochetov

**9:30 - 10:00: Computing intervals of eigenvectors in max-min algebra**

*Martin Gavalec*

**10:00 - 10:30: Computing graph invariants**

*André Pönitz*

Thursday, Sep 5

**Asset Allocation**

Room: E1.05

Chair: Ulrich Derigs

**9:00 - 9:30: Multi-Period Portfolio Selection with Optimal Currency Hedging**

*Detlef Steiner*  
Karl Frauendorfer

**9:30 - 10:00: Multiperiod Portfolio Optimization with Parallel Decomposition Algorithms**

*Hans Moritsch*

**10:00 - 10:30: Metaheuristics for Tracking Error Minimization in Portfolio Management**

*Ulrich Derigs*  
Nils Nickel, Ralf Schnickmann

Thursday, Sep 5

**Production 9**

*Room: HS 1*

*Chair: Udo Buscher*

**11:00 - 11:30: On Buffers Allocation Problem: Complexity and Heuristic Solution**

*Alexander Kolokolov*

*A. B. Dolgui, Anton Ereemeev, V. S. Sigaev*

**11:30 - 12:00: Berücksichtigung knapper Lagerkapazitäten bei der Simultanplanung von Produktions- und Transportlosgrößen in mehrstufigen Fertigungssystemen**

*Udo Buscher*

*Gerd Lindner*

Thursday, Sep 5

**Transportation and Traffic 11**

*Room: HS 3*

*Chair: Mohammed Aljohani*

**11:00 - 11:30: Routing of Snowploughs - A Column Generation Approach**

*Nima Golbaharan*

*Per Olov Lindberg*

**11:30 - 12:00: Roadway Grades Modeled by A Polynomial That Minimizes Earthwork Cost**

*Mohammed Aljohani*

*Ahmad A. Moreb*

Thursday, Sep 5

**Game Theory, Auctioning & Bidding, Experimental Economics 4a**

*Room: HS 5*

*Chair: Theodor S. H. Driessen*

**11:00 - 11:30: Multi-issue allocation games**

*Ruud Hendrickx*

*Pedro Calleja, Peter Borm*

Thursday, Sep 5

**Energy, Environment 6**

*Room: HS 6*

*Chair: Jutta Geldermann*

**11:00 - 11:30: Entscheidungsunterstützung für die nationale Umsetzung von Emissionsminderungsmaßnahmen mittels des Stoffflussmodells ARGUS**

*Jutta Geldermann*

*Nurten Avci, Stefan*

*Wenzel, Otto Rentz*

**11:30 - 12:00: Fuzzy scheduling for the dismantling of complex products**

*Frank Schultmann*

*Otto Rentz*

Thursday, Sep 5

**Approximation with guaranteed performance 2**

*Room: HS B*

*Chair: Petra Mutzel*

**11:00 - 11:30: Bend Minimization in Graph Drawing Using Mixed Integer Programming**

*René Weiskircher*

*Petra Mutzel*

*Thursday, Sep 5*

**Location 2**

*Room: HS C*

*Chair: Horst W. Hamacher*

**11:00 - 11:30: A Branch-and-Price Algorithm for the Capacitated Facility Location Problem**

*Simon Görtz*  
Andreas Klose

**11:30 - 12:00: Approximation algorithms for k-center problem: an experimental evaluation**

*Jurij Mihelic*  
Borut Robic