Keynote Lecture: Professor Ignacio Grossmann

Chair: Vincent Mousseau

   Ignacio Grossmann
MA-02
Monday, 8:30-10:00
RB-Beta

Scheduling Applications

Chair: Malgorzata Sterna

1 - Scheduling chains of divisible computations
    Maciej Drozdowski, Joanna Berlinska

2 - Scheduling malleable tasks with arbitrary processing speed functions
    Maciej Machowiak, Mikhail Y. Kovalyov, Jan Weglarz, Maksim Barketau

3 - Fast Truck-Packing of 3D boxes
    Grzegorz Pawlak, Joanna Jozefowska, Erwin Pesch, Dawid Kowalski, Michal Morze

4 - Genetic Algorithm Supporting Supply Process in Charitable Organizations
    Malgorzata Sterna, Mateusz Cichenski, Mateusz Jarus, Michal Miskiewicz, Jaroslaw Szymczak
MA-03
Monday, 8:30-10:00
RB-L1

Business Excellence in Logistics: Intelligent and Interactive Routing

Chair: Martin Josef Geiger
Chair: Murat Koksalan

1 - An Interactive Approach for Multi-objective Route Selection Problem
   Diclehan Tezcaner, Murat Koksalan

2 - Delivery Scheduling Using Intelligence
   Gulgun Kayakutlu, Gokcen Turkel

3 - A holistic optimization problem for aviation community noise
   Daniel Zachary, Ulrich Leopold
MA-04
Monday, 8:30-10:00
RB-L2

Optimization of shared urban transportation systems

Chair: Gonçalo Correia

1 - Strategic design of public bicycle sharing systems with service level constraints
   Jenn-rong Lin, Ta-hui Yang

2 - Testing the validity of the MIP approach for locating carsharing stations in one-way systems
   Diana Rita Ramos Jorge, Gonçalo Correia, Cynthia Barnhart

3 - Assessing the profitability of carsharing fleet distributions based on usage patterns
   Mathias Goeppel

4 - A shared-taxi agent based model. Testing several market configurations for the Lisbon municipality
   Gonçalo Correia, Luis Martinez, José Viegas
MA-05
Monday, 8:30-10:00
RB-L3

Maritime fleet size and mix

Chair: Trond A. V. Johnsen

1 - Containership speed and fleet size optimisation with semi-elastic demand: an application to northern europe-south america trade
Ali Cheaitou, Pierre Cariou

2 - On solving the feeder containership network design problem via meta-heuristic approaches
Olcay Polat, Hans-Otto Guenther, Osman Kulak

3 - Fleet size and mix in liner shipping
Trond A. V. Johnsen, Lars Magne Nonås, Kjetil Fagerholt, Bjørn Egil Asbjørnslett
MA-06
Monday, 8:30-10:00
RB-Gamma

Matheuristics in Transportation

Chair: Fabien Tricoire

1 - Fresh bovine skin transportation from slaughters to tannery with special time windows and capacity constraints
   Giorgio Romanin-Jacur, Carlo Filippi

2 - Freight train composition with minimum shunting operations
   Uwe T. Zimmermann, Ronny Hansmann

3 - Hybrid heuristics for solving a maritime short sea inventory routing problem
   Alexandrino Delgado, Agostinho Agra, Marielle Christiansen, Luidi Simonetti
MA-07
Monday, 8:30-10:00
RB-Eta

Novel and emerging VRPs

Chair: Jorge E. Mendoza

1 - A Multiple Plan Approach for the Dynamic Technician Routing and Scheduling Problem
Victor Pillac, Christelle Gueret, Andres Medaglia

2 - Capacitated Vehicle Routing Problem with Loading Constraints: A Case in the UK
Nasrin Asgari, Xiang Song, Dylan Jones, Tim Pigden

3 - The Minimum Duration Truck Driver Scheduling Problem
Asvin Goel

4 - A GRASP with heuristic concentration for the vehicle routing problem with stochastic demands
Jorge E. Mendoza, Juan G. Villegas
MA-08
Monday, 8:30-10:00
RB-Epsilon

Network Optimization 1

Chair: Ana Bautzer

1 - Recent Developments in the Ring Spur Assignment Problem
   Paula Carroll, Bernard Fortz, Martine Labbé, Scán McGarraghy

2 - ILP Models for the PON Access Network Design Problem
   Maria João Lopes, Luís Gouveia, Amaro de Sousa

3 - Robust optimization of optical fiber access networks deployments
   Cédric Hervet, Marie-Christine Costa, Faye Alain, Matthieu Chardy, Stanislas Francfort

4 - Models for a Steiner multi-ring network design problem with revenues
   Ana Bautzer, Luis Gouveia, Ana Paias, José Pires
MA-09

Monday, 8:30-10:00

RB-Zeta

Cutting and Packing 1

Chair: A. Miguel Gomes

1 - Heuristics for the three-dimensional loading capacitated vehicle routing problem
Leonardo Junqueira, Reinaldo Morabito

2 - A heuristic for the vehicle routing problem with backhauls and three-dimensional loading constraints
Andreas Bortfeldt, Lars Moench

3 - Inter-depot transportation planning involving palletisation and truck loading.
Maria Teresa Alonso Martínez, Ramon Alvarez-Valdes, Joaquim Gromicho, Francisco Parreno, Gerhard F. Post, Jose Tamarit

4 - A study on multiobjective rectilinear packing problems
A. Miguel Gomes, Marisa Oliveira, Mª Eduarda Pinto Ferreira
MA-10
Monday, 8:30-10:00
RB-Theta

Applications

Chair: Hicham Chehade
Chair: Lionel Amodeo

1 - Determining means of serial processors and parameters of lot rectifying inspection plan
Ashraf El-Ga’aly, Shokri Selim

2 - High speed methods for volume computation and applications to robust optimization in Supply Chain Management
Rahul Paul, G. N. Srinivasa Prasanna, Kundan Kumar, Subhrajit Debnath

3 - Optimal replenishment policy for deteriorating items with time dependent demand
Shivraj Singh

4 - Optimization of the processing times of cyclically repeated intersecting operation sets
Boris Rozin, Genrikh Levin
MA-11
Monday, 8:30-10:00
RB-Iota

Incursion of foreign transportation resources

Chair: Jörn Schönberger

1 - Heuristic Strategies for Bundle Bidding in Transport Auctions
   Tobias Buer, Herbert Kopfer

2 - Benefits of a heterogeneous fleet — the ecological perspective
   Herbert Kopfer, Heiko Kopfer, Jörn Schönberger

3 - Collaborative Transportation Operations Planning in a Real-world Scenario
   - Handling of Backhauls
   Andrea Nagel, Giselher Pankratz, Hermann Gehring

4 - Enrichment of Mobile Freight Auctions with Location Sensitivity: Systemic Design Considerations
   Dimitrios Emiris, Charis Marentakis
Fuzzy Goal Programming and Optimization Methods

Chair: Mariano Jimenez-Lopez

1. Soft computing applied to portfolio selection with uncertain data
   Carlos Cruz Corona, Ricardo Coelho Silva, José L. Verdegay

2. Fuzzy goal programming for material requirement planning under uncertainty and integrity conditions
   Josefa Mula, Manuel Díaz-Madroñero, Mariano Jimenez-Lopez
   Paper moved from session MB-12

3. A Novel Approach for Multiobjective Programming Problems with fuzzy objective functions
   Monga K Luhandjula
   Paper moved to session MB-12

4. Simulation of Stochastic Linear Queuing Systems
   Richard Cimler, Martin Gavalec

5. Sequential Goal Programming with Fuzzy Hierarchy: Application to Sustainable Investments
   Mariano Jimenez-Lopez, Amelia Bilbao-Terol, Mar Arenas-Parra, Verónica Cañal
Lot-sizing and Related Topics 1

Chair: Bernardo Almada-Lobo

1 - Integrated scheduling of continuous casters and hot strip mills in the steel industry: a block planning approach
   Pedro Amorim, Imke Mattik, Hans-Otto Guenther

2 - Lot sizing and scheduling of chemical commodity products: An evolutionary block planning application
   Andreas Schöpperl, Hans-Otto Guenther

3 - Combining column generation and metaheuristics for solving a parallel machine scheduling problem with job splitting
   Carina Pimentel, Filipe Alvelos, Diogo Alves

4 - Neighbourhood-based hybrid algorithm for pulp and paper production planning
   Gonçalo Figueira, Maristela Santos, Bernardo Almada-Lobo
MA-14
Monday, 8:30-10:00
RB-Omega

Scheduling

Chair: Wieslaw Kubiak

1 - Product Rate Variation problem on parallel machines and divisor methods of apportionment
   Joanna Jozefowska

2 - An Efficient Algorithm for Finding Ideal Schedules
   Dariusz Dereniowski, Ed Coffman, Wieslaw Kubiak

3 - Coordinating Subcontractor Scheduling with Divisible Jobs and Private Information
   Behzad Hezarkhani, Wieslaw Kubiak

4 - Time auction as a tool for solving multiagent scheduling problems
   Piotr Modliński
MA-15 has moved to TD-19

MA-16
Monday, 8:30-10:00
RB-2103

Advances in Nonsmooth Optimization

Chair: Adilson Elias Xavier

1 - A Simple Resilient Backpropagation Algorithm for Non-Smooth Optimization Problems  
Apostolos Kotsialos

2 - Solving the Continuous Multiple Allocation p-Hub Median Problem by the Hyperbolic Smoothing Approach: Computational Results  
Adilson Elias Xavier, Claudio Gesteira

3 - Solving the Minimum Sum of L1 Distances Clustering Problem by Hyperbolic Smoothing and Partition into Boundary and Gravitational Regions  
Sergio B. Villas-Boas, Vinicius Layter Xavier

4 - Solving the Fermat-Weber Problem with the Hyperbolic Smoothing Method  
Vinicius Layter Xavier, Felipe França, Adilson Elias Xavier, Priscila Lima
MA-17

Monday, 8:30-10:00

RB-2105

Location and Supply Chain Management

Chair: Teresa Melo

1 - On the Feasibility of Establishing a Northern Western Australian Beef Abattoir as a Facility Location Problem
   Rodolfo Garcia-Flores, Andrew Higgins, Andreas Ernst

2 - Design of a pooled distribution network: a case study
   Olivier Péton, Fabien Lehuédé, Christian Leroux, Xavier Perraudin

3 - Comparing classical performance measures for a multi-period logistics network design problem
   Teresa Melo, Isabel Correia, Francisco Saldanha-da-Gama
MA-18
Monday, 8:30-10:00
RB-2107

Financial Crisis Modelling

Chair: Blanka ?krabi? Peri?

1 - Spanish savings banks in the credit crunch: could distress have been predicted before the crisis? A multivariate statistical analysis
Martí Sagarra, Cecilio Mar-molinero

2 - On the transition of Japanese corporate rating structure under the recent credit crises
Motohiro Hagiwara, Yasuhiro Matsushita, Katsuaki Tanaka

3 - Using assignment problem in financial products’ design
Maria Mavri, Michail Bekiaris

4 - Recent crisis, credit boom and nonperforming loans in CEE countries—panel data evidence
Blanka ?krabi? Peri?, Josip Arneric
Risk management in commodities markets

Chair: Massimo Panella
Chair: Rita Decclesia
Chair: Bogdan Iftimie

1 - Energy commodities: price relationships the key issue
   Rita Decclesia

2 - A Mixed Integer Linear Programming Approach to Markov Chain Bootstrapping
   Roy Cerqueti, Paolo Falbo, Cristian Pelizzari, Federica Ricca, Andrea Scozzari

3 - Financial Optimization Modeling in R
   Ronald Hochreiter
MA-20

Monday, 8:30-10:00

RB-2113

Financial Time Series Analysis and Forecasting

Chair: Marcus Hildmann

1 - Carbon Price Sensitivity and Sectoral Analysis
   Omer Kayhan Seyhun

2 - Online Financial Data Streams Value at Risk Segmentation Methods
   Dima Alberg

3 - Modeling the market decision problems for electrical energy balancing systems
   Mariusz Kaleta
MA-21

Monday, 8:30-10:00

RB-2115

Financial Mathematics and OR 1

Chair: Tansel Avkar
Chair: Gerhard-Wilhelm Weber

1 - Different approaches for evaluating a Portfolio of R&D Projects
   Anabela Costa, José Paixão

2 - Time series forecasting and optimal stopping problem in market index portfolio
   Lukas Pichl

3 - Portfolio Optimization with Hybrid Uncertainty
   Alexander Yazenin

4 - Multicriteria decision making in comparison of objective and subjective criteria of companies’ success
   Branka Marasovic, Ivana Tadic
Soft Computing and SCM Applications

Chair: Kaj-Mikael Bjork

1 - A tabu search vehicle routing problem
   Kaj-Mikael Bjork

2 - A Multi-item Fuzzy Economic Production Quantity Problem with Backorders and Limited Storage Space
   Magnus Westerlund, Kaj-Mikael Bjork, József Mezei

3 - Systems of (max, min)-linear equations and inequalities
   Martin Gavalec, Karel Zimmermann

4 - Measuring transitivity of fuzzy pairwise comparison matrix in DM problems
   Jaroslav Ramík, Petr Korviny
Generalized Differentiation

Chair: Alexander Kruger
Chair: Gerhard-Wilhelm Weber

1 - On Weak Subdifferentials and Exhausters
   Mustafa Soyertem, Mahide Kucuk, Ryszard Urbanski, Jerzy Grzybowski, Yalcin Kucuk, Ilknur Atasever, Didem Tozkan

2 - Exhausters, Weak Subdifferentials and Optimality Conditions
   Didem Tozkan, Mahide Kucuk, Ryszard Urbanski, Jerzy Grzybowski, Yalcin Kucuk, Ilknur Atasever, Mustafa Soyertem

3 - Relationships between gw-subdifferentials and radial epiderivatives for nonconvex vector functions
   Ilknur Atasever, Yalcin Kucuk, Mahide Kucuk

4 - Minkowski-Radstrom-Hormander cone and reducing infinite exhausters
   Jerzy Grzybowski, Ryszard Urbanski, Mahide Kucuk, Yalcin Kucuk, Ilknur Atasever, Mustafa Soyertem, Didem Tozkan
MA-24
Monday, 8:30-10:00
CC-A11

Cooperation and Logistics

Chair: Ignacio García-Jurado

1 - A polynomial expression for the Owen value in the maintenance cost game
   Julian Costa

2 - Minimum cost Steiner tree problems
   Silvia Lorenzo-Freire, Gustavo Bergantinos, Leticia Lorenzo, Juan Vidal-Puga

3 - Scheduling jobs with a common due date via combinatorial games
   Irinel Dragan

4 - On graphs which can or cannot induce Chinese Postman games with a non-empty core
   Daniel Granot
MA-25

Monday, 8:30-10:00

CC-A23

Energy Distribution: Planning and Optimization

Chair: Carmen Anido

1 - Unit Commitment optimisation through matheuristics
 Ana Viana, Dewan Fayzur Rahman, Joao Pedro Pedroso

2 - Optimising Distributed Energy Operations in Buildings
 Afzal Siddiqui, Markus Groissböck, Somayeh Heydari, Ana Mera Vazquez, Eugenio Perea Olabarria, Michael Stadler

3 - Compatibility of optimized distributed storage profiles for grid operators and energy traders
 Stefan Nykamp

Paper added to session

4 - A hybrid genetic algorithm for the optimal allocation of remote controlled switches in radial distribution system
 Laura Assis, Fábio Usberti, Christiano Lyra, Fernando J. Von Zuben, José Federico Vizcaíno

Regulatory agencies define target reliability indices to increase the quality of electrical power supply. These indices can be improved with the solution of specific combinatorial optimization problem. This work tackles the problem of finding the best number, location and type of switches to be installed in a radial power distribution network. The objective is to improve system reliability, while minimizing the total cost of the solution. An effective hybrid genetic algorithm that evaluates and optimizes the allocation of remote controlled sectionalizers and tie switches is proposed.
MA-26
Monday, 8:30-10:00
CC-A24

OR Applications in Oil and Gas

Chair: Krystsina Bakhrankova

1 - Stochastic MIP modeling of a natural gas-powered industrial park
Gerardo Perez Valdes, Kjetil Midthun, Michal Kaut, Vibeke Nørstebø

2 - Strategic behaviour in the crude oil market - one-stage vs. two-stage oligopoly models
Daniel Huppmann, Clemens Haftendorn

3 - Stochastic mixed integer programming for integrated portfolio planning in the LNG supply chain
Kristin Tolstad Uggen, Adrian Werner, Marte Fodstad, Arnt-Gunnar Lium

4 - Modeling gas infrastructure investments under uncertainty
Ozge Ozdemir, Jeroen de Joode
MA-27
Monday, 8:30-10:00
CC-A25

Empirical Research on Decision Processes - Methods & Findings

Chair: Gilberto Montibeller

1 - Exploring IT project managers’ decision making processes in-situ, in-actu, in-toto: an empirical study of day-to-day decision making in medium size software development
Ana Barcus

2 - The impact of need for closure on model-supported group conflict management
Etienne Rouwette, L. Alberto Franco

3 - Post-catastrophe decision making
Ian Durbach, Gilberto Montibeller
MA-28
Monday, 8:30-10:00
CC-A27

OR in Quality Management 1

Chair: Ipek Deveci Kocakoğlu

1 - Dealing with multiple quality characteristics as responses in prediction modeling: An aggregation approach
   Leman Esra Dolgun, Gulser Koksal, Nimetullah Burnak

2 - A supervised learning procedure for monitoring mean and covariance simultaneously
   Ipek Deveci Kocakoğlu, Eralp Dogu

3 - Optimization on selection problem of solder paste inspection machines
   Gokce Baysal, Ipek Deveci Kocakoğlu

4 - An adaptive Bayesian scheme for joint monitoring of process mean and variance
   George Nenes, Sofia Panagiotidou
MA-29
Monday, 8:30-10:00
CC-A29

Mixed-Integer Quadratic Problems

Chair: Adam Letchford

1 - A New Separation Algorithm for the Boolean Quadric and Cut Polytopes
   Michael Sørensen, Adam Letchford

2 - Cutting Planes from a Convex Quadratic Relaxation of the Stable Set Problem
   Fabrizio Rossi, Monia Giandomenico, Adam Letchford, Stefano Smriglio

3 - Nonstandard Semidefinite Bounds For Solving Exactly 0-1 Quadratic Problems
   Frederic Roupin, Nathan Krislock, Jerome Malick

4 - On the Gap Inequalities for the Max-Cut Problem
   Adam Letchford, Laura Galli, Konstantinos Kaparis
MA-30
Monday, 8:30-10:00
CC-A31

Fat Tail Models in Finance

Chair: Audrius Kabasinskas

1 - Application of estimates of alpha-stable distribution to distress forecast
   Audrius Kabasinskas, Zivile Kalsyte

2 - Hurst coefficient and alpha-stable parameter for analysis of financial series
   Roman Rodriguez Aguilar

3 - Xpress-Mosel: Modelling support for distributed, remote, and cloud computing with applications in Finance
   Susanne Heipcke, Oliver Bastert, Yves Colombani

4 - High-Frequency Financial Data: A Mixed-Stable approach
   Audrius Kabasinskas, Igoris Belovas, Leonidas Sakalauskas
MA-31
Monday, 8:30-10:00
CC-A33

Game Theory and Social Networks 1

Chair: Juan Tejada

1 - Analysis of Network Formation with Learning Dynamics
   Michiharu Masui

2 - Centrality in Weighted Social Networks. A Game Theoretic Approach.
   Conrado M. Manuel, Enrique González-Arangüena

3 - Clustering networks by a new edge betweenness measure: A cooperative game theoretical approach
   Daniel Gomez Gonzalez, Javier Castro

4 - Computing centralities and the Myerson value in large social networks
   Juan Tejada, Javier Castro, Daniel Gomez Gonzalez, Elisenda Molina
■ MA-32
Monday, 8:30-10:00
CC-A34

Combining Methods & Multimethodology

Chair: Alberto Paucar-Caceres

1 - Combining hard-soft OR for generative design thinking
Polyxeni Vassilakopoulou, Vassilis Tsagkas, Nicolas Marmaras

2 - Contrasting the ‘expected’ versus ‘realized’ benefits of multi-methodology
Felipe Henao, L. Alberto Franco

3 - Applying Soft Systems Methodology and Systems Dynamics to Environmental Management: A boundary critique framework
Alberto Paucar-Caceres, Diane Hart, Ricardo Rodriguez-Ulloa

4 - Structuring Community Issues - working with community members to identify and (re)structure local problematic issues
Rebecca Herron
OR for Business and Industrial Development

Chair: Honora Smith
Chair: Tatjana Staube

1 - Mining Industrial Transformations and Resource Re-Allocation Using a New MCDM Model – Case of Taiwan and Poland
Mei-Chen Lo, Gwo-Hshiung Tzeng, Tian-Jong Hwu, Jerzy Michnik, Tadeusz Trzaskalik, Maciej Nowak

2 - Using DEA to Inform an Integrated Response to Policy Change: The Case of the South African Private Hospital Industry
Shivani Ramjee

3 - Determining the Position of E7 Countries among Developing Countries by Kohonen Networks
Hüseyin Tatlidil, Nurbanu Bursa

4 - Does Latvia use its advantageous location?
Tatjana Staube, Ineta Geipele
MA-34
Monday, 8:30-10:00
CC-A39

Game Solutions

Chair: Encarnación Algaba

1 - Equilibria in Load Balancing Games
   Bo Chen

2 - Dealing with time issues in testing revealed preference axioms
   Fabrice Talla Nobibon, Yves Crama, Frits Spieksma

3 - Equilibrium, coalitive and computational aspects of Pareto-Nash-
    Stackelberg Games
   Valeriu Ungureanu

4 - Harsanyi power solutions for union stable systems
   Encarnación Algaba, Jesus-Mario Bilbao, Rene van den Brink
MA-35
Monday, 8:30-10:00
CC-A41

OR Industry; OR Software

Chair: Belarmino Adenso-Diaz

1 - High-performance local search for TV media planning on TF1
   Frédéric Gardi

2 - Cost optimization in planning the dubbing of a film
   Mª Luisa Carpente, Ana Cerdeira-Pena, Silvia Lorenzo-Freire

3 - Multistage Multiproduct Advertising Budgeting
   Cesar Beltran-Royo, Huizhen Zhang, Luis Blanco, Jose Almagro
MA-36
Monday, 8:30-10:00
CC-A43

DEA and Performance Measurement: Methodology 1

Chair: Timo Kuosmanen

1 - Aggregation in cross-efficiency evaluations with induced ordered weighted averaging (IOWA) operators
   Inmaculada Sirvent, Teresa Leon, Nuria Ramón, José L. Ruiz

2 - Performance Measurement Tools for HR Management related Processes based on System Identity Analysis
   Jitka Civinova

3 - One-stage and two-stage DEA estimation of the effects of contextual variables
   Timo Kuosmanen, Andrew Johnson

4 - Estimation Efficiency of Teachers through Data Envelopment Analysis
   Venkata Hrd
MA-37
Monday, 8:30-10:00
CC-Act

Bioinformatics I

Chair: Jacek Blazewicz
Chair: Metin Turkay

1 - A data mining case study on brain cancer patients
   Fadime Uney-Yuksektepe

2 - Markov models of voltage gating of gap junction channels
   Henrikas Pranevicius, Feliksas Bukauskas, Mindaugas Pranevicius, Osvaldas Pranevicius, Saulius Vaiceliunas

3 - Inferring two-generation kinship (or genealogy) from microsatellite samples
   Tanya Berger-Wolf, Daehan Won, Chun An Chou, W. Art Chaovalitwongse, Bhaskar Dasgupta, Ashfaq Khokhar, Mary V. Ashley
MA-38
Monday, 8:30-10:00
HH-Colombus

Integer Linear and Linear Multiobjective Optimization

Chair: Walter Habenicht

1 - Enumerative Cuts in Integer Linear Vector Optimization
   Walter Habenicht

2 - Graphical exploration of the weight space in multiobjective integer linear programming
   Maria João Alves, João Paulo Costa

3 - A multicriteria linear programming model for measuring efficiency in productive processes
   David Alcaide Lopez de Pablo, Rafaela Dios-Palomares, Angel M. Prieto

4 - Factoraggregation and its application for solving bilevel linear programming problems.
   Pavels Orlovs, Olga Montvida
MA-39
Monday, 8:30-10:00
HH-Cousteau

MADM Applications I

Chair: Chin-Tsai Lin
Chair: Chie-bein Chen

1 - A storage location assignment problem for a pick-and-pass warehousing system with multiple pickers and congestion considerations
   Jason Chao-Hsien Pan, MingHung Wu

2 - The Effects of Individualism/Collectivism Orientations
   Kuochung Chang

3 - An EOQ Model with Defective Items and Imperfect Inspection Process
   Chia-Huei Ho, Liang-yuh Ouyang, Chia-hsien Su

4 - Market Effectiveness and Reinstatement of Top Managers
   Chin-Tsai Lin, Yi-Hsien Wang, Jung-Ho Lu, Hwa-Rong Shen, Yang-Sheng Wang
MA-40
Monday, 8:30-10:00
HH-Livingstone

MADM Applications V

Chair: Chin-Tsai Lin
Chair: Chie-bein Chen

1 - The study on the festival event experience benefit structure relationship model — a case of Kaohsiung Zuoying Wannian Folklore Festival
   Tang-Chung Kan, Hung-ju Chien, Vivien Y.C. Chen

2 - Dealer selection for an automotive company using ELECTRE I and TOPSIS methodologies
   Elif Maç, Zerrin Aladag

3 - An empirical analysis between Japanese Government and NPOs in the New Period
   Kuo Tzu-hsuan, Vivien Y.C. Chen, Tang-Chung Kan

4 - A multi-objective strategy for Pareto set refinement
   Adriano Lisboa, Fellipe Santos, Douglas Vieira, Rodney Saldanha, Marcus Lobato
MA-41
Monday, 8:30-10:00
HH-Heyerdahl

Evolutionary Multiobjective Optimization

Chair: Juergen Branke
Chair: Arnaud Liefooghe

1 - Preference-based Evolutionary Algorithm for Many Objective Optimization Problems
   Ankur Sinha, Kalyanmoy Deb, Pekka Korhonen, Jyrki Wallenius

2 - Automatic Design of Multi-Objective Optimization Metaheuristics
   Manuel López-Ibáñez, Thomas Stützle

3 - Anytime Local-Search Algorithms for Multi-Objective Optimization
   Jérémie Dubois-Lacoste, Manuel López-Ibáñez, Thomas Stützle

4 - Multi-objective combinatorial benchmark problems and search space structure
   Arnaud Liefooghe
Simulation 1

Chair: Michael Manitz

1 - A research of computer network systems’ productivity and efficiency with simulation modeling
   Sultan Ceren Salkın

2 - The impact of a waiting-time threshold in overflow systems with impatient customers
   Michael Manitz, Raik Stolletz

3 - Value analysis of healthcare asset tracking systems using simulation
   Ece Arzu Demircan, Nilgun Fescioglu-Unver
MA-43
Monday, 8:30-10:00
BW-Granite

Multistage Stochastic Programming

Chair: Alois Pichler

1 - Ambiguity in multistage stochastic programming and worst case trees
    Georg Pflug

2 - Measures of information in multistage stochastic programming
    Marida Bertocchi, Francesca Maggioni, Elisabetta Allevi

3 - Stochastic programming formulations of coherent multiperiod risk measurement
    Martin Densing

4 - Decomposition of Risk Measures
    Alois Pichler
Airline Revenue Management

Chair: Tatsiana Levina
Chair: Yuri Levin

1. Uncertainty in air cargo revenue management
   Emily Cookson, Kevin Glazebrook, Joern Meissner

2. Airline product design based on consumer preference for ticketing restrictions
   Dong Myong Lee, Do Hee Han, Meghana Dhungana

3. A continuous-time dynamic pricing model knowing the competitor’s pricing strategy
   Kimitoshi Sato, Katsushige Sawaki

4. Dynamic pricing of flight passes
   Yuri Levin, Mikhail Nediak, Huseyin Topaloglu
MA-45
Monday, 8:30-10:00
BW-Water

Advertising decisions in the supply chain

Chair: Salma Karray

1 - Bilateral Cooperative Advertising
   Marcus Kunter

2 - Cooperative Advertising in a Dynamic Retail Market Duopoly
   Suresh Sethi, Anshuman Chutani

3 - Optimal Sequence of play for channels with cooperative advertising programs
   Salma Karray
IFORS Invited Tutorial: Professor Erhan Erkut

Chair: Elena Fernandez

1 - How to Make OR the Most Liked Course in the Curriculum?

Erhan Erkut
New scheduling models and algorithms

Chair: Dirk Briskorn

1 - A tactical approach to skill management
Murat Firat, Cor Hurkens, Alexandre Laugier

2 - Integrated planning of jobs and maintenance activities on a single machine
Dirk Briskorn, Stefan Bock, Andrei Horbach

3 - A labeling algorithm for scheduling deliveries with e-vehicles
Sleman Saliba, Sven Krumke, André Chassein

4 - Hybrid method for minimizing earliness and tardiness penalties in a single-machine problem with a common due date
Christophe Wilbaut, Saïd Hanafi, Rachid Benmansour, Mustapha Ratli, Rita Macedo
MB-03
Monday, 10:30-12h00
RB-L1

Business Excellence in Logistics:
Future Transport and Production

Chair: Martin Josef Geiger

1 - A Scheduling heuristic for surface treatment process of steel coils and its application
Ozlem Uzun Araz, Ozgur Eski, Ceyhun Araz, Levent Bayoglu

2 - Future Transport Demand Analysis for Turkey
Fusun Ulengin, Sule Onsel, Bure Ulengin, Ozay Ozaydin, Özgür Kabak

3 - Multi-criteria analysis of transport policy targets with the help of telematic services
Gideon Mbiydzenyuy

4 - Measuring Cost Effects of Supply Chain Stockouts: An Interactive Approach with Fast Cost Function Convergence
Sebastian Langton, Martin Josef Geiger
Public Transport Perspectives within a Changing Mobility Environment

Chair: Claus Doll

1 - USEmobility: Why do people switch to environmentally friendly modes of transport?
   Jolanta Skalska

2 - Social Costs and Benefits of Sustainable and Healthy Mobility Patterns
   Claus Doll
MB-05
Monday, 10:30-12h00
RB-L3

Maritime Transportation 1

Chair: Harilaos Psaraftis

1 - An Integrated Model for Ship Routing with Transshipment and Berth Allocation
   Jiyin Liu, King-Wah Pang

2 - Stochastic Optimal Positioning of Tramp Vessels: A Markovian Approach
   Evangelos Magirou

3 - A taxonomy and survey of speed models in maritime transport
   Harilaos Psaraftis

4 - Maritime transport as an important link in the global supply chain
   Algirdas ?akalys
MB-06
Monday, 10:30-12h00
RB-Gamma

Design and parameter tuning of metaheuristics

Chair: Mike Wright

1 - Scheduling cricket umpires using neighbourhood search — The dramatic impact of a simple change in neighbourhood definition
Mike Wright

2 - Online Parameter Tuning: Another Aspect of Learning for Metaheuristics
Arif Arin, Ghaith Rabadi

3 - Probabilistic stopping rules for GRASP heuristics
Celso Ribeiro, Isabel Rosseti, Reinaldo Souza

4 - A solution clustering based guidance mechanism for parallel metaheuristic algorithm
Jianyong Jin, Arne Løkketangen, Teodor Gabriel Crainic
MB-07

Monday, 10:30-12h00

RB-Eta

Neighborhood reduction strategies for vehicle routing

Chair: Wout Dullaert

1 - A Simple Parameter-free Heuristic for the Fleet Size and Mix Problem with Time Windows
   Olli Bräysy, Wout Dullaert

2 - Efficient local search methods for the large-scale Vehicle Routing Problem.
   Onne Beek, Birger Raa, Wout Dullaert

3 - Incorporating constraint preservation in GA operators for VRPTW problem
   Gintaras Vaira, Olga Kurasova
Network Optimization 2

Chair: Dimitri Papadimitriou

1 - Single Source Tree Network Design Under Convex Costs
   Henrique Luna, Gilberto Miranda, Ricardo Camargo

2 - SearchCol algorithms for unsplittable multicommodity flow problems
   Filipe Alvelos, Amaro de Sousa, Dorabella Santos

3 - Ultra-fast meta-heuristic for the spectrum re-allocation problem in flexgrid optical networks
   Marc Ruiz, Alberto Castro, Luis Velasco, Jaume Comellas

4 - Exploiting geometry of large-scale topologies for routing operations
   Dimitri Papadimitriou
MB-09
Monday, 10:30-12h00
RB-Zeta

Cutting and Packing 2

Chair: Maria Antónia Carravilla

1 - A hybrid metaheuristic for the nesting problem
   José Fernando Oliveira, Ramon Alvarez-Valdes, Antonio Martinez Sykora, Maria Antónia Carravilla, A. Miguel Gomes, Jose Tamarit

2 - Optimisation Containment Problem of Arbitrary Shaped Objects into a Circular Container
   Alexander Pankratov, Yuri Stoyan, Tatiana Romanova

3 - Tetris-like Item Packing with Balancing and Additional Conditions: an MIP-based Heuristic Approach
   Giorgio Fasano

4 - The Dotted-Board Model, a promising MIP model for the Nesting Problem
   Maria Antónia Carravilla, Franklina Toledo, Cristina Ribeiro, José Fernando Oliveira, A. Miguel Gomes
Performance Analysis and Inventory

Chair: Frédéric Dugardin
Chair: Christophe Duhamel
Chair: Olga Nazarenko

1 - Performance evaluation of a merge system: A distribution centre with multiple random suppliers
   Michael Vidalis, Stelios Koukoumialos

2 - Does greater company size lead to better performance? Evidence from Greek food supply chain
   Emel Aktas, Michael Bourlakis, George Maglaras, Christos Fotopoulos

3 - Inventory management optimisation in multi-echelon enterprise
   Olga Nazarenko, Yuriy Pasenchenko
MB-11

Monday, 10:30-12h00

RB-Iota

Transport Modelling

Chair: Jaume Barcelo

1 - Logit models incorporating driving styles variables for representing gap-acceptance behavior
   Riccardo Rossi, Massimiliano Gastaldi, Claudio Meneguzzer

2 - An integrated fleet assignment model with supply-demand interactions
   Bilge Atasoy, Michel Bierlaire, Matteo Salani

3 - Ship route modelling for traffic pattern analysis
   Ronald Pelot, Dong Lin, Casey Hilliard

4 - The sensor location problem
   Jaume Barceló
MB-12
Monday, 10:30-12h00
RB-Omicron

Fuzzy Relations & Neural Networks

Chair: Martin Gavalec

1 - Eigenproblem of Circulant and Toeplitz matrices in extremal algebra
   Hana Tomaskova, Martin Gavalec

2 - Learning Effect Approach for Scheduling Problem with Fuzzy Processing Time and Fuzzy Due Date
   Merve Kayaci Çodur, Vecihi Yigit

3 - Mean-Partial moments models for portfolio selection with fuzzy returns
   Mbairadjim Moussa Alfred, Sadefo Kamdem Jules, Terraza Michel

   Paper moved to session MA-12
   A Novel Approach for Multiobjective Programming Problems with fuzzy objective functions
   Monga K Luhandjula

   Paper moved from session MA-12
5 - Simulation of Stochastic Linear Queuing Systems
   Richard Cimler, Martin Gavalec
Lot-sizing and Related Topics 2

Chair: Christian Almeder

1 - The impact of major factors in food processing industry on the capacitated lot-sizing and scheduling problem

2 - A multicommodity lotscheduling model for the soft drink production process
   Socorro Rangel, Michelli Maldonado

3 - Modeling the multi-level lot-sizing and scheduling problem - a comparison
   Renate Traxler, Christian Almeder
Discrete-continuous scheduling

Chair: Jan Weglarz

1 - Metaheuristics for discrete-continuous project scheduling with discounted cash flows and various payment models
   Grzegorz Waligora

2 - Metaheuristic approaches for power-aware scheduling problem
   Rafał Rozycki

3 - Multimode resource-constrained project scheduling problem with setup costs
   Marek Mika

4 - Optimal resource allocation in virtual datacenters — a multidimensional continuous bin packing approach
   Holger Schrödl
Nonlinear Optimization and Applications 1

Chair: Simone Göttlich

1 - Range Approximation of Multivariate Polynomials for Global Optimization
   Martin Stöcker

2 - Linear least squares with different types of constraints: effectiveness of methods.
   Arnaud Vandaele

3 - Optimization Techniques: Combinatorial Optimization and Adjoint Calculus
   Simone Göttlich

4 - An improved approach to subset selection for parameter estimation in online applications
   Diana López, Tilman Barz, Harvey Arellano-Garcia, Günther Wozny
Hybrid Algorithms & Nonsmooth Optimization

Chair: Angel A. Juan
Chair: Albert Ferrer

1 - Successive Approximations of the SimuRoute Procedure to solve the Heterogeneous Vehicle Routing Problem
   Javier Faulin, Angel, A. Juan, Alba Agustín, Miguel Angel Llorente

2 - Solving non-smooth problems through biased randomization of heuristics
   Angel A. Juan, Albert Ferrer, Javier Faulin, Helena Ramalhinho Lourenço

3 - A Randomized Algorithm for the Heterogeneous Fixed Fleet Vehicle Routing Problem
   Jose Caceres Cruz, Angel, A. Juan, Daniel Riera, Helena Ramalhinho Lourenço

4 - Solving a real application of the Time-Constraint Capacitated Open Vehicle Routing Problem
   Helena Ramalhinho Lourenço, Luciana Pessoa, Alex Grasas, Angel A. Juan, Mauricio Resende
Location and GIS

Chair: Burcin Bozkaya

1 - A fast spatial query algorithm for location analysis
   Honora Smith

2 - Location Survey and GIS (Geographic Information System) for Shopping Centers Across the Country (Turkey)
   Ceren Erdin Gundogdu

3 - Locating Temporary Shelter Areas After a Large-Scale Disaster
   Burcin Bozkaya, Firat Kilci, Bahar Yetis Kara
MB-18

Risk Analysis and Options

Chair: Susanne Griebsch

1. Designing a combinatorial auction for real estate
   Dries Goossens, Frits Spieksma, Onderstal Sander

2. A Stochastic Volatility Cointegration Model in Continuous Time
   Susanne Griebsch, Kay Pilz

   Paper moved from session TD-34

3. The Antecedents and the Benefits of Partnership in PEF (Private Equity Fund) of South Korean Industries: The Sustainability Perspective
   Hansuk Lee, Seongtae Hong, In-Young Lee
MB-19
Monday, 10:30-12h00
RB-2111

Energy and Environmental markets

Chair: Silvana Stefani

1 - The impact of grandfathering on emission certificates for the electricity sector
   Paolo Falbo, Daniele Felletti, Silvana Stefani

2 - An inspection of Energy and Agricultural Markets after Fukushima
   Angelica Gianfreda, Giacomo Scandolo

3 - Forecasting Volatility with Interday or Intraday Data: A Case Study on Istanbul Stock Exchange 30 National Index
   Alper Inkaya
Data Mining and Risk Analysis

Chair: Marcus Hildmann

1 - Estimation of Stochastic Volatility Models for Commodities with few Options
   Gonzalo Cortazar, Federico Alonso

2 - Data cleansing of implied volatility surfaces
   Dejan Stokic

3 - A Linear Programming Model for Enhanced Indexation based on Strong Stochastic Dominance
   Renato Bruni, Francesco Cesarone, Andrea Scozzari, Fabio Tardella

4 - Pump Storage Hydro Plant Valuation under Risk Constraints
   Marcus Hildmann, Florian Herzog, Sebastiano Rossi
Financial Mathematics and OR 2

Chair: Tansel Avkar

1 - Recently crisis, credit boom and nonperforming loans in CEE countries - panel data evidence
Blanka ?krabi? Peri?, Josip Arneric

2 - A Technology Credit-Scoring Model for Service Industry
So Young Sohn, Mooyeob Lee

3 - Properties and Calculation of MVaR and MCVaR
Jinwook Lee, Andras Prekopa

4 - A bank’s attractiveness as described by a cusp catastrophe model
Vassilis Angelis, Katerina Dimaki
Multiple-criteria evaluation and decision-making under fuzziness: theory and applications

Chair: Jana Talasova

1 - A multi-agent multiple-criteria approach to fraud detection under fuzziness
Mario Fedrizzi, Alessandro Buoni, Alessandro Buoni

2 - Multiple criteria evaluation of creative work outcomes
Jana Talasova, Jan Stoklasa

3 - Linguistically oriented model for academic staff performance evaluation
Jan Stoklasa, Jana Talasova, Pavel Holecek

4 - Multicriteria analysis of teacher's managerial competencies
Helena Brozova
■ MB-23

Monday, 10:30-12h00

RB-Delta

Optimality Conditions and Stability

Chair: Alexander Kruger
Chair: Gerhard-Wilhelm Weber

1 - First and Second Order Optimality Conditions for Vector Optimization Problems with Non-solid Positive Cone  
Valentin Gorokhovik

2 - Risk-Sensitive Average Optimality in Finite and Denumerable Markov Decision Chains  
Karel Sladky
Centralized Inventory and Production

Chair: Ana Meca

1 - Cooperation in Assembly Systems: the Role of Knowledge Sharing Networks
Fernando Bernstein, Gurhan Kok, Ana Meca

2 - Cost allocation in inventory transportation systems
Ignacio García-Jurado, Mª Gloria Fiestras-Janeiro, Ana Meca, Manuel Alfredo Mosquera Rodríguez

3 - Capacity sharing: capacity or labor division? A cooperative game approach
Shoshana Anily

4 - k-norm Cost Games with Critical Players
Ana Meca, Greys Sosic
MB-25
Monday, 10:30-12h00
CC-A23

Practical Issues of Environmental Management

Chair: Carmen Anido

1 - Dynamic Modelling of Climate Change Adaptation Pathways: The Case of Surf Life Saving Australia
   Oz Sahin, Marcello Sano, Russell Richards, Shauna Sherker

2 - Materials and Technologies for Industrial Heritage Sustainability
   Michal Ganobjak, Eva Kralova

3 - Impacts of Climate Change on the Slovak Economy
   Tomas Domonkos, Ivan Lichner
Recent Research Advances in the Oil Sector

Chair: Irina Dolgopolova

1 - From a decoupled to an integrated planning approach in the supply chain of specialty oils
   Mario Guajardo, Martin Kylinger, Mikael Rönqvist

2 - Dynamic pricing application in the energy market
   Gamze O'cu, Ozlem Cosgun

3 - Revenue management and pricing: A case study for a natural gas supplier
   Ozlem Cosgun, Emre Meterelliyoz, Abdulkadir Kivrak, Yunus Sartk, Seniye Ümit Oktay F?rat
MCDA and Decision Processes

Chair: K. Nadia Papamichail

1 - Design and evaluation of MCDA interventions
   K. Nadia Papamichail, Theodor Stewart

2 - Criteria definition and weight assignment in MCDA: a review on environmental problems
   Miguel Morgado, Luis C. Dias

3 - Introduction to a new evidential reasoning rule for decision analysis
   Jian-Bo Yang

4 - Supporting the restoration of historical portable organ with a new hybrid MCDM model
   Tian-Jong Hwu, Mei-Chen Lo, Jerzy Michnik, Tadeusz Trzaskalik, Maciej Nowak, Gwo-Hshiung Tzeng
OR in Quality Management 2

Chair: Gulser Koksal

1 - Optimum 2k-p factorial experiment sequencing: A bi-objective mathematical model
   Vitoria Pureza, Pedro Oprime, Antonio Branco Costa

2 - Observer scheduling for quality monitoring
   Satyaveer S. Chauhan, Anjali Awasthi, Anna Guinzbourg

3 - A two-stage stochastic programming model for p-chart design
   Elif Elcin Gunay, Ufuk Kula, Tülin Aktin
Robust Optimization and Non-Convex Integer Programming

Chair: Emiliano Traversi

1 - Cutting Planes for the Network Loading Problem with Stochastic Demands
   Konstantinos Kaparis, Adam Letchford, Stein W. Wallace

2 - Robust Integer Non-Linear Optimization
   Ruth Hübner, Anita Schöbel

3 - A concave programming approach for Sparse Principal Component Analysis and Sparse representation of signals
   Francesco Rinaldi, Giampaolo Liuzzi

4 - Separable underestimators for Quadratic Combinatorial Optimization.
   Emiliano Traversi, Christoph Buchheim
Emerging Applications in Finance

Chair: Amparo Soler-Dominguez

1 - Assessing the role of managers as determinants of mutual fund efficiency: a nonparametric approach
   Amparo Soler-Dominguez, Emili Tortosa-Ausina, Juan Carlos Matallin-Saez

2 - Optimal stopping rules for the random horizon duration problems
   Mitsushi Tamaki

3 - The Effects of Topology and Behavioral Canon on Network Equilibria
   Abhijit Deshmukh, Brandon Pope
Game Theory and Social Networks 2

Chair: Elisenda Molina

   Enrique González-Arangüena, Anna Khmelnitskaya, Conrado M. Manuel

2 - A Game-theoretic Approach to Networks
   Martha Saboya, Guillermo Owen, Susana Lopez

3 - Average Forest Value for Directed Graph Restricted Games
   Elisenda Molina, Ramon Flores, Anna Khmelnitskaya, Juan Tejada
Understanding the Practice of Soft OR Interventions I

Chair: L. Alberto Franco

1 - The emergence of agreements within facilitated modelling workshops
   Thanos Papadopoulos, L. Alberto Franco

2 - Exploring dialogue in problem structuring workshops
   Elena Tavella

3 - Exploring the communicative impact of Problem Structuring Methods: Results of an interaction-analysis based research.
   Orestis Afordakos

4 - On the roles, uses, and effects of models in Soft OR workshops
   L. Alberto Franco
OR and Modelling for Sustainable Development

Chair: Subhash Datta

1 - OR/MS Models for Sustainable Development in India  
Subhash Datta

2 - Multicriteria decision making in comparison of objective and subjective criteria of companies’ success  
Branka Marasovic, Ivana Tadic

3 - Revised ICI as a leading indicator of Croatian industrial production during a recession  
Mirjana Cizmesija, Natasa Erjavec, Vlasta Bahovec

4 - Flexible approach in planning of infrastructure development  
Jerzy Paslawski
MB-34
Monday, 10:30-12h00
CC-A39

Cooperative games: dynamics, robustness and related topics

Chair: Ehud Lehrer

Paper moved to session WA-34
Cooperative games on accessible union stable systems
Rene van den Brink, Encarnación Algaba, Chris Dietz
MB-35
Monday, 10:30-12h00
CC-A41

Assortment and Replenishment Planning

Chair: Michael Sternbeck

1 - Joint product assortment, inventory and price optimization
   Argyro Katsifou, Ralf W. Seifert, Jean-Sébastien Tancrez

2 - Selecting order packaging units for store delivery in grocery retailing
   Michael Sternbeck, Heinrich Kuhn

3 - Scheduling in-store replenishments under service-level and capacity constraints
   Rob Broekmeulen
DEA and Performance Measurement: Methodology 2

Chair: Dimitris Despotis

1 - Two-stage data envelopment analysis: A slacks-based measure procedure for the upper bound performance
   Fuh-Hwa Liu, Yu-Cheng Liu

2 - Cost efficiency when prices are not fixed: Disentangling quantity and price efficiency
   Emmanuel Thanassoulis, Maria Portela

3 - Value-based DEA: A piece-wise linear programming approach
   Dimitrios-Georgios Sotiros, Dimitris Despotis

4 - An alternative approach to two-stage DEA with a series relationship between the stages
   Gregory Koronakos, Dimitris Despotis
MB-37
Monday, 10:30-12h00
CC-Act

Bioinformatics II

Chair: Aleksandra Swiercz
Chair: Pawel Wojciechowski

1 - Highly efficient parallel algorithm for de novo assembly
   Aleksandra Swiercz, Piotr Gawron, Jacek Blazewicz, Marta Kasprzak

2 - The fast method for contig extraction from the overlap graph
   Piotr Gawron

3 - A greedy randomized adaptive search procedure with Path Relinking for
    the Shortest Superstring Problem
   Theodoros Gevezes

4 - A lattice model approach to the molecular distance geometry problem
   Cristina Requejo, Agostinho Agra, Rosa Maria Figueiredo, Carlile Lavor, António Pereira, Nelson Maculan
Duality in Multi-objective Optimization

Chair: Andreas Löhne

1 - Alternative generalized Wolfe type and Mond-Weir type vector duality
   Emilia-Loredana Pop, Sorin-Mihai Grad

2 - Lagrange necessary conditions for Pareto minimizers in Asplund spaces and applications
   Christiane Tammer, Truong Q. Bao

3 - Applications of duality in multiobjective optimization
   Andreas Löhne
MB-39

Monday, 10:30-12h00

HH-Cousteau

MADM Applications II

Chair: Chin-Tsai Lin
Chair: Chie-bein Chen

1 - Evaluating Information Quality and Validity of Value Line Stock Ratings
   Shin-Yun Wang, Po-Lung Yu

2 - Selecting the Optimal Foreign Dramas for Commercial TV Stations in Taiwan Using Delphi and AHP
   Pi-Fang Hsu, Shu-Yu Lin

3 - Developing a Selection Model for Newspaper Integrated Marketing Communication Service
   Ya-Han Lin, Pi-Fang Hsu

4 - Measuring the International Backpackers Travelling Risk
   Pin-Ju Juan, Shin-Yi Lin
MADM Applications VI

Chair: Chin-Tsai Lin  
Chair: Chie-bein Chen

1 - A qualitative model for collective intelligence analysis  
   Jiang-Liang Hou, Hung Lung Lin, Shih-Ting Yang, Yu-Min Chiang

2 - Taiwan Health Communication Research: Application and Impact of New Media  
   Rose Hung, Pi-Fang Hsu

3 - Hybrid MCDM Approach for Company Growth Strategy Selection in Marketing  
   Tuncay Gürbüz, Y. Esra Albayrak
1 - Determinants of customers satisfaction in the Nigerian aviation industry using AHP model
   Adebola Adekoya, B.e.a. Oghojafor, Emmanuel O. Oyatoye

2 - Performance evaluation of inmetro: a contribution of multicriteria decision aid
   Lorena Berzins, Luis Rangel

3 - Combine ANP and Fuzzy integral approaches for supplier evaluation and selection
   James Liou, Yen-Ching Chuang, Gwo-Hshiung Tzeng

4 - Comparison of methods for deriving priorities in the analytic hierarchy process
   Josef Jablonsky
MB-42
Monday, 10:30-12h00
BW-Amber

EURO Doctoral Dissertation Award (EDDA 2012)

Chair: Jacques Teghem
Chair: Silvano Martello
Chair: Hartmut Stadtler
Chair: Hartmut Stadtler
Chair: Stéphane Dauzere-peres
Chair: Ahti Salo
MB-43

Monday, 10:30-12h00

BW-Granite

Stochastic Programming - Stability, Estimation

Chair: Petr Lachout

1 - Empirical Estimates via Heavy Tails
Vlasta Kaňková

2 - Stochastic program with additional information
Petr Lachout

3 - Universal Confidence Sets - Estimation and Relaxation
Silvia Vogel

4 - Stability and convexity of chance-constrained problems with structural dependence
Michal Houda
MB-44
Monday, 10:30-12h00
BW-Marble

Inventory, Pricing, and Customer Behavior

Chair: Qing Li

1 - Group buying mechanisms
   Rachel Zhang

2 - Optimal pricing policy for recyclable short life-cycle products
   Hsiao-Fan Wang

3 - Managing perishable goods under different customer preferences
   Qing Li, Xiaoli Wu
Applications of Pricing and Revenue Management

Chair: Luce Brotcorne

1 - Revenue management in sequential distribution: An application to the Hindi Movie Industry
   Megha Sharma, Sumanta Basu

2 - Dynamic pricing with predefined tariff constraints
   Kris Meyers, Mario Vanhoucke, Behzad Samii

3 - An efficient heuristic approach for a dynamic pricing problem in telecommunications
   Jean-robin Medori, Mustapha Bouhtou, Michel Minoux

4 - A Bilevel Approach for a Long Haul Freight Transportation Pricing Problem
   Luce Brotcorne, Diaby Moustapha, El-ghazali Talbi
Keynote Lecture: Professor Ceyda Oguz

Chair: Gerhard-Wilhelm Weber

1. Computational Biology and Operations Research
   Ceyda Oguz
Scheduling Approaches for Complex Manufacturing Systems

Chair: Lars Moench

1 - A GRASP Approach for the Job Shop Scheduling Problem with Total Weighted Tardiness Objective
   Jens Kuhpfahl, Christian Bierwirth

2 - Heuristics for Integrated Process Planning and Scheduling
   Oleh Sobeyko, Lars Moench

3 - Scheduling Flowline Manufacturing Cells with Intercellular Moves: The Cell Scheduling Problem
   Janis Sebastian Neufeld, Udo Buscher

4 - A New Hybrid Algorithm for Solving the Resource-Constrained-Project-Scheduling-Problem (RCPSP).
   Luis Moreno, Javier Diaz, Gloria Peña
**MC-03**

*Monday, 12:30-14:00*

*RB-L1*

**Business Excellence in Logistics: Advanced Vehicle and Inventory Routing**

Chair: Martin Josef Geiger

1 - **Cyclic Delivery Schedules for Inventory Routing Problem**

Gültakin Kuyzu, Ali Ekici, Okan Ozener

2 - **Multi-Objective Inventory Routing: Recent Advances**

Martin Josef Geiger, Thibaut Barthelemy, Marc Sevaux

3 - **A Multi-Stage Optimisation Approach for Delivery Planning and Scheduling**

Vitaly Bolshakov, Galina Merkuryeva, Michael Affenzeller, Erik Pitzer

4 - **Selective and Periodic Inventory Routing Problem**

Özge Tüncel, Sibel Salman, Onur Kaya, Deniz Aksen
MC-04
Monday, 12:30-14:00
RB-L2

Optimal Control I

Chair: Erik Kropat
Chair: Ekaterina Kostina

1 - Direct Optimal Control Methods for a Centralized Approach to Separation Management
   Ekaterina Kostina

2 - Optimal control models of renewable energy production under fluctuating supply
   Gernot Tragler, Elke Moser, Dieter Grass, Alexia Prskawetz

3 - Proposing and simulating a new suboptimal hybrid embedding-PMP technique for tumor anti-angiogenesis optimal control
   Alireza Fakharzadeh, Zahra Khoshgam

   Paper moved to session WB-16
   Optimization for switching control system
   Shahlar Meherrem, Refet Polat
MC-05
Monday, 12:30-14:00
RB-L3

Liner shipping optimization

Chair: Fernando Alvarez

1 - A Multi-period Planning Model for Liner Shipping’s Bunker Management
Xiaoyu Wang, Chee Chong Teo

2 - The Vessel Schedule Recovery Problem - disruption management in liner shipping
Berit Dangaard Brouer, Christian Edinger Munk Plum, Bo Vaaben, David Pisinger, Jakob Dirksen

3 - Competition and efficiency in the container liner shipping industry
Christa Sys
MC-06
Monday, 12:30-14:00
RB-Gamma

Production, planning and facility location

Chair: Maria Eugénia Captivo

1 - A Dynamic Scheduling Approach for Solving the Single Machine Total Weighted Tardiness Problem
Sener Akpinar, Alper Hamzadayi, Simge Yelkenci Kose, Hanifi Okan Isguder, Atabak Elmi

2 - A competitive genetic algorithm for single row facility layout
Ravi Kothari, Diptesh Ghosh

3 - A genetic approach for planning elective surgeries in a Portuguese hospital
Maria Eugénia Captivo, Inês Marques, Margarida Pato

Athanassios Nikolakopoulos, Ioannis Ganas, Ioannis Konstantaras, Konstantina Skouri
Applications of Vehicle Routing

Chair: Johan Oppen

1 - A Real-World VRP with Uncertain Delivery Quantities
   Birk Baumbach, Axel Simroth

2 - A two phase multi-objective algorithm for the bi-objective VRP
   Jorge Oyola, Arne Løkketangen

3 - Milk Collection in Western Norway Using Trucks and Trailers
   Arild Hoff

4 - Intermodal flexible liner shipping
   Johan Oppen
MC-08
Monday, 12:30-14:00
RB-Epsilon

Network Optimization 3

Chair: M. Emre Keskin

1 - DiffServ Aware Routing Optimization in Telecommunication Networks
    Amaro de Sousa, Carlos Lopes, Dorabella Santos, Filipe Alvelos

2 - Optical Fiber Network Design with Real Life Constraints and Cost Function
    Stanislas Francfort, Frederic Mouliès, Cédric Hervet, Matthieu Chardy

3 - The Package Server Location Problem
    Arnaud Malapert, Mohamed Rezgui, Jean-Charles Régin, Jean Parpaillon, Yvan Manon

4 - An integrated approach to lifetime maximization in wireless sensor networks
    M. Emre Keskin, I. Kuban Altinel, Necati Aras, Cem Ersoy
MC-09
Monday, 12:30-14:00
RB-Zeta

Cutting and Packing 3

Chair: Ramon Alvarez-Valdes

1 - An analysis of the problem instances and the data sets used for computational experiments in the Identical Item Packing Problem
   Elsa Silva, José Fernando Oliveira, Gerhard Wäsch

2 - Optimizing Shelf Space in Retail Stores
   Teresa Bianchi-Aguiar, Maria Antónia Carravilla, José Fernando Oliveira

3 - A local optimization switch algorithm for packing non-identical circles
   Georgiy Yaskov, Yuri Stoyan

4 - Determining the best shipper sizes for sending products to customers
   Ramon Alvarez-Valdes, Maria Teresa Alonso Martínez, Francisco Parreno, Jose Tamarit
Non-deterministic models

Chair: Farouk Yalaoui
Chair: De Souza Mauricio
Chair: Y. Ilker Topcu

1 - Manufacturing flexibility in an oligopoly competition with demand uncertainty
   Liu Yang, Chi To Ng

2 - Designing a robust supply chain for competition against existing competitors in retailer level
   Ghasem Rajabloo, Shabnam Rezapoor, Maghsud Solimanpur

3 - A decision analysis on cooperative advertising
   Sebnem Burnaz, Esin Ekmekci, Y. Ilker Topcu
MC-11

Monday, 12:30-14:00

RB-Iota

Transport Planning

Chair: Hani Mahmassani

1 - New Algorithm for the Stochastic Generalized Transportation Problem
   Marcin Anholcer

2 - The Dynamic Driver-Routing Problem
   Niels Agatz, Jordan Srour, Johan Oppen

3 - Optimal Bus Route Frequency Allocation in a Large-Scale Urban System
   Hani Mahmassani, Ismail Omer Verbas

   Paper moved to session WA-30

Development of an optimisation framework for scheduling of street works
   Rahman Pilvar
MC-12
Monday, 12:30-14:00
RB-Omicron

Application of fuzzy logic and soft methodologies in decision-making and financial modelling

Chair: Robert Fullér
Chair: Mikael Collan

1 - Fuzzy Models and Statistics
   Reinhard Viertl

2 - An Integration of TOPSIS Method and Interval Type II Fuzzy Sets to Evaluate Municipality Investment Alternatives: The Case of Istanbul Municipality
   Nazmi Sener, Hasan Huseyin Turan

3 - Quantifying expected benefits from investment projects with the fuzzy pay-off method
   Mikael Collan

4 - Numerical Patent Analysis with a Fuzzy Compound Real Option Model
   Xiaolu Wang
MC-13
Monday, 12:30-14:00
RB-Tau

Lot-sizing and Related Topics 3

Chair: Franklina Toledo

1 - An approach of implementing the Kalman filter in the calculation of lot sizes
    Katharina Amann, Jutta Geldermann

2 - Hybrid relax-and-fix heuristics for the lot-sizing and scheduling problem in the industry of consumer goods for personal hygiene
    Debora Ronconi, Márcio Kawamura

3 - A hybrid metaheuristic for production planning in the spinning industry
    Victor Camargo, Franklina Toledo, Bernardo Almada-Lobo
Resource allocation and scheduling in practice: further complexity

Chair: Sacramento Quintanilla

1 - Balancing the use and distribution of warehouse resources: a scheduling pre-processing procedure
   M. Angeles Pérez, Francisco Ballestin, M.Pilar Lino, Sacramento Quintanilla, Vicente Valls

2 - Simultaneous allocation of medical resources and scheduling of visits in a Hospital at Home service
   Sacramento Quintanilla, Francisco Ballestin, M.Pilar Lino, M. Angeles Pérez, Vicente Valls

3 - Approximate algorithms for simultaneous project scheduling and resource allocation with controllable processing times
   Jose M. Framinan, Victor Fernandez-Viagas Escudero

4 - Project Resource Leveling and Robustness Optimization using ANP
   Elena Rokou, Konstantinos Kirytopoulos
Nonlinear Optimization and Applications 2

Chair: Edite M.G.P. Fernandes

   Benjamin Ivorra, Juan M. Bello Rivas, Jérôme Harmand, Angel Manuel Ramos, Alain Rapaport

2 - Comparing two MINLP models for the Hydro Scheduling Problem: The case of a head-dependent cascaded reservoir system in Portugal  
   Javier Diaz, Luis Moreno

3 - Continuous optimization using a biologically-motivated multilevel system  
   JongChen Chen

4 - Nonlinear Optimal Control of Spacecraft Attitude Using Internal Momentum Rotors  
   M. Navabi, Mina Tavana
MC-16
Monday, 12:30-14:00
RB-2103

Numerical methods of nonsmooth optimization

Chair: Albert Ferrer

1 - Hyperbolic smoothing function method for minimax problems
   Adil Bagirov

2 - Nonsmooth nonconvex optimization via smooth optimization
   Gurkan Ozturk, Adil Bagirov

3 - A Truncated Codifferential Method: Using hypogradients from current and previous iterations
   Ali Hakan Tor, Adil Bagirov

4 - Iterative local search algorithm for solving non-smooth flow shop problems
   Albert Ferrer, Angel, A. Juan, Helena Ramalhinho Lourenço
Reverse Logistics Network Design

Chair: Sibel A. Alumur

1 - Sustainable Reverse Logistics Network Design for Multi-modal Transport of Household Plastic Waste
   Jacqueline Bloemhof, Xiaoyun Bing, Jack van der Vorst

2 - Integrating forward and reverse flows: a generic model for remanufacturing activity
   Neslihan Demirel, Hadi Gökçen

3 - Multi-Period Reverse Logistics Network Design
   Sibel A. Alumur, Stefan Nickel, Francisco Saldanha-da-Gama, Vedat Verter
MC-18
Monday, 12:30-14:00
RB-2107

Financial Modelling

Chair: Tatjana Slijepcevic-Manger

1 - Moment-matching method with monomial approach
Alessandro Staino, Andrea Consiglio

2 - Stratified Sampling Implementations in Financial Simulation
Ismail Basoglu, Wolfgang Hörmann

3 - Modeling Hedge Fund Performance Using Neural Network Models
Joseph Paradi, Marinos Tryphonas

4 - Ruin probability functions with N intersections
Tatjana Slijepcevic-Manger
Quantitative approaches to bank performance and asset evaluation

Chair: Enrique Ballestero
Chair: Mila Bravo

1 - Ranking funds offered by the Spanish CaixaBank: A compromise approach to performance
   Enrique Ballestero

2 - Evaluating artistic assets: A multicriteria method
   Paloma Pareja, Sonia Zendehzaban

3 - Multicriteria ranking of Spanish banks from the 2011 European Banking Authority wide stress test
   Mila Bravo, Antonio Benito
Risk Analysis and Credit Scoring

Chair: Cristian Bravo

1 - Improving Credit Scoring by Differentiating Defaulter Behavior
   Cristian Bravo, Lyn Thomas, Richard Weber

2 - Intensity models and transition probabilities for credit card loan delinquencies
   Jonathan Crook

3 - Comparative Analysis of Dynamic Models Specification for Behavioral Scoring in a Microfinance Portfolio
   Jose Pizarro, Cristian Bravo

4 - Dynamic affordability assessment
   Katarzyna Bijak, Lyn Thomas
MC-21

Monday, 12:30-14:00
RB-2115

Financial Mathematics and OR 3

Chair: Tansel Avkar
Chair: Gerhard-Wilhelm Weber

1 - A Rank-based Approach to Cross-Sectional Analysis
   Ludovic Cales, Monica Billio, Dominique Guegan

2 - Bayesian approach for stochastic models with conditional heteroscedasticity in the analysis of the return volatility of an agricultural commodity
   Sandra Cristina Oliveira

3 - Solving Large Two-Stage Stochastic Optimization Problems with Portfolio Safeguard
   Stan Uryasev

4 - Corporate Control with Cross-Ownership
   Marc Levy, Ariane Szafarz
MC-23 has moved to TA-23

MC-23 has moved from TA-23

MC-23

Monday, 12:30-14:00

RB-Delta

Generalized Convexity and Optimization

Chair: Alexander Kruger
Chair: Gerhard-Wilhelm Weber

1 - On the pseudoconvexity of a wide class of generalized fractional functions
Laura Carosi, Laura Martein, Alberto Cambini

2 - Continuous-time nonlinear programming under generalized type I invexity
Andreea Madalina Stancu, Ioan Stancu-Minasian

3 - Weak pseudo-invexity, generalized Fritz-John optimality and duality in nonlinear programming
Hachem Slimani, Mohammed Said Radjef
■ MC-24
Monday, 12:30-14:00
CC-A11

OR in Human Resources

Chair: Majda Bastic
Chair: Irina Kazina

1 - The influence of individual factors and work environment on creativity
   Majda Bastic, Gabrijela Leskovar-?acapan

2 - Functionality of self-assessment in 360 degree feedback method
   Gözde Kubat, ?ükr?n Öktem, Hakan Turgut, ?smail Tokmak

3 - Research of control systems within the limits of the educational program
   Irina Kazina, Rostislav Kopytov

4 - Is there a place for OR in the HR Metrics World?
   Gregory Lee
OR in Agriculture I

Chair: Sara Veronica Rodriguez-Sanchez

1 - Surveillance systems in livestock production chains: An approach for quantitative economic optimization
   Xuezhen Guo, G.D.H. (Frits) Claassen, Alfons Oude Lansink, Helmut Saatkamp

2 - A mixed integer linear programming model for production planning of supply chains in the Spanish pig industry
   LluisM Pla, Esteve Nadal

3 - How to improve profitability of the beef herd? - the application of the multi-level hierarchic Markov method.
   Anna Stygar, Anders Ringgaard Kristensen, Joanna M. Makulska

4 - Production planning in a Beef meat packing plant
   Sara Veronica Rodriguez-Sanchez, Alysson M. Costa, Roger Z. Rios-Mercado
MC-27

Monday, 12:30-14:00

CC-A25

Decision Analysis and Group Decision Making

Chair: Jeffrey Keisler

1 - Decision analysis with function-valued variables
   Jeffrey Keisler

2 - On the notion of dictatorship in group utility functions
   Luis C. Dias, Paula Sarabando

3 - Individual heuristics and group decision effectiveness
   Matthias Seifert, Manel Baucells
**MC-28**

**Monday, 12:30-14:00**

**CC-A27**

**Nonsmooth Optimization I**

Chair: Dominik Dorsch

1. **Lower Level Chance Constraints in Robust Portfolio Optimization**  
   Marcel Sinske

2. **Generalized derivatives of the projection onto the cone of positive semidefinite matrices**  
   Anna-Laura Wickström

3. **Nonsmooth versions of Sard’s theorem**  
   Tomas Bajbar, Vladimir Shikhman

4. **Express Line Queues and Space-Time Geometry**  
   Eitan Bachmat
Algorithms and Methods for MINLP problems

Chair: Sonia Cafieri
Chair: Claudia D’Ambrosio

1 - Mixed-integer programming under the presence of uncertainty: On the solution of multi-parametric MILP problems
   Martina Wittmann-Hohlbein, Efstratios Pistikopoulos

2 - GloMIQO: Global Mixed-Integer Quadratic Optimizer
   Christodoulos Floudas, Ruth Misener

3 - A new Branch and Bound algorithm for MIQPs
   Amélie Lambert, Alain Billionnet, Sourour Elloumi

4 - Optimistically Approximating Non-linear Optimization Problems through MILP
   Claudia D’Ambrosio, Andrea Lodi, Silvano Martello, Riccardo Rovatti
Emerging Applications in Production Management

Chair: Jakob Krarup

1 - Assigning experts to tasks in a project
   Stanislaw Walukiewicz, Jakob Krarup

2 - An inventory model with time dependent demand rate, trade credits and partial backlogging
   Vikram jeet Singh

3 - Whole Life Costing (WLC) model in asset management
   Wenjuan Zhang
Mathematical methods for decision support in energy and industrial sectors

Chair: Elisabetta Allevi
Chair: Adriana Gnudi
Chair: Igor Konnov

1 - The steel industry: a mathematical model under environmental regulations
   Rossana Riccardi, Elisabetta Allevi, Adriana Gnudi, Francesca Bonenti, Claudia Avanzi

2 - Evaluating the Impacts of the EU-ETS on Prices, Investments and Profits of the Italian Electricity Market
   Giorgia Oggioni, Francesca Bonenti, Elisabetta Allevi, Giacomo Marangoni

3 - Electricity markets under linear price/demand and quadratic costs: Equilibrium à la Cournot and Supply Function Equilibrium
   Francesca Bonenti, Magali E. Zuanon

4 - Splitting Methods for Dynamic Auction Problems With Set Valued Mappings
   Adriana Gnudi, Elisabetta Allevi, Igor Konnov
Understanding the Practice of Soft OR Interventions II

Chair: Ashley Carreras

1 - A Code of Best Practice for Soft Operational Analysis
   Diederik J.D. Wijnmalen

2 - Planning Soft Workshops: getting the right people in the room
   Sue Merchant

3 - Enhancing the Dimensions of Procedural Justice in Focus Group Workshops using Facilitated Group Decision Software
   Parmjit Kaur, Ashley Carreras

4 - Mapping Collective Intentions
   Ashley Carreras
Humanitarian Logistics and Disaster Management

Chair: Begoña Vitoriano

1 - Structured classification of disasters and emergencies
   J. Tinguaro Rodriguez, Javier Montero, Begoña Vitoriano

2 - Uncertainty and Robustness in Humanitarian Supply Chains for Disaster Relief
   Alistair Clark

3 - Decision Aid Models on Preparedness Operations on Disaster Management
   Begoña Vitoriano, M. Teresa Ortuño, Federico Liberatore, Celeste Pizarro Romero, Clara Simon de Blas

4 - Model to validate the quality of data sources in a ubiquitous crowdsourcing context
   Jose Robledo, Laura Plazola Zamora
Topics in Cooperative Game Theory

Chair: Manuel A. Pulido Cayuela
Chair: Josep Freixas

1 - Enumerations of voting systems: Fibonacci sequences and the gold number
Josep Freixas, Sascha Kurz

2 - Finding extremal voting systems via integer linear programming
Sascha Kurz

3 - Success and decisiveness on symmetric games
Montserrat Pons, Josep Freixas

4 - A model for players' tendencies when playing a cooperative game
M. Albina Puente, Francesc Carreras
1 - Development of a multi-layer ANFIS model for the prediction of tertiary scale formation in the steel industry
   Jonathan Kennedy

2 - Design of a RFID Based Real Time Warehouse Management System for Steel Industry
   Ozgur Eski, Ceyhun Araz, Levent Bayoglu, Filiz Turan

3 - Damage characteristic of hybrid composite plaques in 2m/s speed impact
   Levent Bozkurt

4 - Conjoint analysis for Concept Design of Commercial Diesel Engine
   Jeasu Jeon, So Young Sohn
MC-36
Monday, 12:30-14:00
CC-A43

DEA and Performance Measurement: Applications 1

Chair: Armando Zeferino Milioni

1 - Measuring the efficiency of a pharmacy chain by means of Advanced DEA
   Ludmila Neumann, Heinz Ahn

2 - Benchmarking on Spanish University libraries
   Clara Simon de Blas, Jose Simon Martin, Alicia Arias

3 - Service Benchmarking in the Portuguese Hospitals: An Application of Data Envelopment Analysis
   Ricardo A. S. Castro, Maria Portela, Ana Camanho

4 - Using DEA to evaluate Brazilian Institutions of Higher Education
   Armando Zeferino Milioni, Diego Geraldo, Joyce Teixeira, Luciene Alves
MC-37

Monday, 12:30-14:00
CC-Act

Bioinformatics III

Chair: Marta Szachniuk
Chair: Jacek Blazewicz

1 - An optimization framework for intensity modulated proton therapy treatment planning
   Gino Lim, Wenhua Cao, Xiaodong Zhang

2 - On the selection of images and determining the age of acquisition of words for a recognition test using exploratory data analysis
   Gastão Gomes, Sergio Camiz, Christina Gomes, Fernanda Senna

3 - Benchmarking and proposed improvements of the database of Clusters of Orthologous Genes (COG)
   Farzana Rahman, Mehed Hassan, Tatiana Tatarinova, Alexander Bolshoy
MC-38

Monday, 12:30-14:00
HH-Colombus

Multicriteria Decision Support Systems in Industry

Chair: Karl-Heinz Kuefer
Chair: Kai Plociennik

1 - Efficient Approximation of Convex and Non-Convex Pareto-Frontiers with Application to Chemical Process-Optimization
   Uwe Nowak, Michael Bortz, Karl-Heinz Küfer

2 - A multicriteria optimization approach for radiofrequency ablation (RFA) planning
   Katrin Teichert, Philipp Süss, Karl-Heinz Kuefer

3 - Multicriterial decision support for photovoltaic power plant design
   Kai Plociennik, Hendrik Ewe, Ingmar Schüle, Karl-Heinz Kuefer

4 - Multicriteria Rolling Wave Planning and Scheduling
   Bastian Bludau, Sebastian Velten, Karl-Heinz Kuefer
**MC-39**  
Monday, 12:30-14:00  
HH-Cousteau

**MADM Applications III**

Chair: Chin-Tsai Lin  
Chair: Chie-bein Chen

1 - Identifying Reasons of Customer Waiting  
Chih-Chin Liang

2 - Identifying Hierarchical and Simultaneous Multi-player Game-solution for (Non-)cooperative Advertising in Manufacturers and Retailers Using MOPSO-CD or NSGA II  
Chie-bein Chen, Jung-Ho Lu, Yuanchau Liour

3 - Application of Fuzzy Subsethood Measure as the Filter for Outliers in Likert’s Questionnaire Analysis  
Cheng-Chuang Hon, Ling-Lang Tang

4 - An Evaluation Model of Implementing RFID for 3PL’s Service Agility and Value  
Ling-Lang Tang, Cheng-Chuang Hon, Ming-Tsang Lu
MADM Applications VII

Chair: Chin-Tsai Lin
Chair: Chie-bein Chen

1 - Efficiency and Productivity of Human Resources in Science and Technology in Innovation and Efficiency Driven Nations
Ying-Chyi Chou, Hsin-Yi Yen

2 - An Assessment of Taiwan’s Solar Water Heater Subsidy Policy Using Logistic Diffusion Curves
Pao-Long Chang, Chiung-Wen Hsu

3 - Investigation of feature dimension reduction based GLCM/SVM for color filter defect classification
Yu-Min Chiang, Yao-Chang Lin, Jiang-Liang Hou, Shih-Ting Yang

Paper moved from session WD-26

4 - Environmental Fuzzy Multi-Attribute Decision-Making in Integrated Wastewater Management
Hojjat Mianabadi, Mehrdad Mirabi, Erik Mostert, Mohammad Bagher Sharifi
MC-41
Monday, 12:30-14:00
HH-Heyerdahl

AHP/ANP 2

Chair: Tihomir Hunjak

1 - Combination of DEMATEL and ANP for the cargo shipping company selection problem
   Nilsen Kundakc?, Esra Aytac, Ayegül Tu?k

2 - Analysis of course selection using ahp and discrete choice analysis
   Anamarija Jazbec

3 - An AHP/DEA hybrid model for the evaluation of Croatian research institutes performances
   Tihomir Hunjak

   Paper moved to session TA-41

Utilization of Multi-Criteria Decision Making Methods at the Phase of Compare and Contrasting of the Course of Actions within the Military Decision Making Process.
   Erman Atak
MC-42
Monday, 12:30-14:00
BW-Amber

EEPA 2012 - 1

Chair: Michel Bierlaire

1 - Clearance Pricing Optimization at Zara
   Felipe Caro, Jérémie Gallien

2 - Scheduling the German Basketball League
   Stephan Westphal

3 - Optimization of advertisement revenue for the French TV group TF1
   Thierry Benoist, Frédéric Gardi, Antoine Jeanjean
MC-43
Monday, 12:30-14:00
BW-Granite

Stochastic Programming:
Applications to the energy sector

Chair: Marida Bertocchi
Chair: Maria Teresa Vespucci

1 - Operating fully renewable power systems: biomass and wind case
   Ruth Dominguez, Miguel Carrión, Antonio J. Conejo

2 - A multi-stage stochastic programming model for investments in natural gas infrastructure
   Asgeir Tomasgard

3 - A multistage stochastic model for the electric power generation capacity expansion problem under different risk measures.
   Maria Teresa Vespucci, Marida Bertocchi, Laureano Fernando Escudero, Stefano Zigrino
Incorporating uncertainty in Energy Management Optimization Problems: A long and winding road

Chair: Sandrine Charousset-brignol
Chair: Wim van Ackooij

1 - Incorporating uncertainty in large scale Energy Management Optimization Problems in practice.
   Sandrine Charousset-brignol

2 - Towards a Multi-stage Robust Formulation for the Nuclear Reactor Outage Scheduling Problem
   Nicolas Dupin, Marc Porcheron, Pascale Bendotti

3 - Modeling the residential electrical load curve: a stochastic algorithm for realistically starting the domestic appliances
   Arnaud Grandjean
MC-45
Monday, 12:30-14:00
BW-Water

Management accounting and management control 1

Chair: Stephan Leitner

1 - Agent-based simulation analysis of performance measurement systems considering uncertainties of a learning model
Yusuke Goto, Shingo Takahashi

2 - A computational tool for performing production and warehouse budgets in an environment with uncertainty and seasonality
Jairo Coronado-Hernandez, José P. Garcia-Sabater

3 - Simulation comparison of relative and absolute operators for the inference of criteria weights from discordance related information
Andrej Bregar

4 - Financial structure optimization by using an adapted goal programming method
Tunjo Peri?, Zoran Babic
MD-01

Monday, 14:30-16:00

RB-Alfa

Tutorial Lecture: Professor Kenneth Sørensen

Chair: Marc Sevaux

1 - Metaheuristics - the metaphor exposed
   Kenneth Sørensen
Scheduling models in Logistics

Chair: Dirk Briskorn

1. Determining crane areas for balancing workload among interfering and non-interfering cranes
   Nils Boysen, Malte Fliedner, Simon Emde

2. Packing chained items into bins with applications to container handling and project scheduling
   Malte Fliedner, Dirk Briskorn

3. A dynamic programming approach to the aircraft landing problem with aircraft classes
   Alexander Lieder, Raik Stolletz, Dirk Briskorn

4. Scheduling of the batch annealing process in a fastener company
   Ceyhun Araz, Ozgur Eski, Levent Bayoglu, Filiz Turan
MD-03
Monday, 14:30-16:00
RB-L1

Logistics, Transportation, Traffic - 1

Chair: Thierry Benoist

1 - Two-stage vehicle routing problem with dynamic selection of entrepots  
   Juraj Pekár, Ivan Brezina, Zuzana Štíková

2 - The Line Traveling Salesman with partial ordering  
   Thierry Benoist, Antoine Jeanjean, Vincent Jost

3 - Degrees of freedom in calculating inventory-carrying costs: a simulation study  
   Christoph Siepermann

   Paper moved from session TD-04

4 - The Target Visitation Problem  
   Achim Hildenbrandt, Gerhard Reinelt
MD-04
Monday, 14:30-16:00
RB-L2

Optimal Control II

Chair: Gernot Tragler

1 - Normality of the maximum principle for the Bolza problem under state and end point constraints
   Daniela Tonon, Helene Frankowska

2 - Network based computing environment for solving optimal control problems
   Radoslaw Pytlak, Tomasz Tarnawski, Mariusz Kaleta, Tomasz Sliwinski

3 - Dynamic Programming Approach to Optimal Control Problems with Pure State Constraints
   Daniel Hoehener, Giancarlo Facchi

4 - Determining the optimal strategies for stochastic control problem with finite time horizon
   Dmitrii Lozovanu
1 - Heuristics for Stochastic and Dynamic Maritime Pickup and Delivery Problems  
   Lars Magnus Hvattum, Gregorio Tirado, Kjetil Fagerholt, Jean-François Cordeau

2 - Modeling ballast water in container stowage planning  
   Dario Pacino, Alberto Delgado, Rune Jensen

3 - Fleet deployment with speed optimization  
   Henrik Andersson, Kjetil Fagerholt, Kirsti Hobbesland


**MD-06**

**Monday, 14:30-16:00**

**RB-Gamma**

**Vehicle routing problems**

Chair: Cédric Verbeeck

1. **A local search heuristic algorithm for the CVRP with open routes**  
   R. Aykut Arapoglu, Abdurrahman Yildiz

2. **Comparing metaheuristics for the Time-Dependent Orienteering Problem**  
   Cédric Verbeeck, Pieter Vansteenwegen

3. **A Tabu Search Method for a Cement Delivery Problem**  
   Marc Uldry, Alain Hertz, Marino Widmer

4. **A multi-objective inventory routing problem for sustainable waste management under uncertainty**  
   Pamela Nolz, Nabil Absi, Dominique Feillet
MD-08
Monday, 14:30-16:00
RB-Epsilon

Network Optimization 4

Chair: Axel Werner

1 - Bundling Telecommunication Services with Network Costs
   Juan Perez, Alejandro Jofre

2 - The effects of inaccurate information on the queue joining policy
   David Raz

3 - Free Riding Solution for Hybrid P2P Networks
   Amad Mourad, Djamil Aissani, Moumen Hamouma

4 - Optimizing energy consumption of telecommunication networks
   Axel Werner
MD-09
Monday, 14:30-16:00
RB-Zeta

Cutting and Packing 4

Chair: Ozgur Kulak

1 - Linearization of Non-oriented Polygonal Placement Optimization Problem
   Marina Novozhilova, Igor Chub

2 - A Circle Covering approach to the Nesting problem
   Pedro Rocha, Rui Rodrigues, A. Miguel Gomes

3 - Packing spherical caps in high dimensional spaces
   Cristiano Torezzan, Sueli Costa

4 - A comparative study of 2D irregular object geometry modelling solutions
   for cutting and packing problems
   Ozgur Kulak
MD-10
Monday, 14:30-16:00
RB-Theta

Inventory Management 1

Chair: Amin Chaabane
Chair: Marthy Stivaliz García Alvarado

1 - A Serial Inventory System with Information Exchange
   Nima Yazdan Shenas

2 - A single-period inventory placement problem for a supply system with the satisficing objective
   Piotr Stali?ski, Chia-Shin Chung, James Flynn, Roelof Kuik

3 - An inventory model with partial backorders assuming uniform demand
   Joaquín Sicilia, Valentín Pando, Luis A. San-José, Juan García-Laguna

4 - Inventory Control Under The Carbon Emission Trading Scheme
   Marthy Stivaliz García Alvarado, Marc Paquet, Amin Chaabane
MD-11
Monday, 14:30-16:00
RB-Iota

Traffic Management

Chair: Livia Mannini

1 - Traffic management and emissions estimation in a within day dynamic framework
   Simone La Spada, Marialisa Nigro, Stefano Gori, Livia Mannini

2 - Implementation of variable speed systems in an access road (c 31 n) to barcelona
   M. Antonia de los Santos, David Gallegos, Francisco Liesa

3 - Green timing and scheduling: an approach based on genetic algorithms
   Giulio Erbeto Cantarella, Roberta Di Pace

4 - Estimation of traffic flow conditions through data fusion techniques
   Livia Mannini, Ernesto Cipriani, Stefano Gori
MD-12
Monday, 14:30-16:00
RB-Omicron

Decision-making and modelling under fuzziness

Chair: Mario Fedrizzi

1 - Boundary properties of inconsistency indices in group preference relations
Matteo Brunelli, Michele Fedrizzi

2 - Error based decision making on approximation methods under fuzziness
Svetlana Asmuss, Vecislavs Ruza

3 - Indirect sociomapping
Cyril Höschl, Radvan Bahbouh

4 - Sociomapping of communication
Radvan Bahbouh, Cyril Höschl
1 - The integrated lot sizing and scheduling problem in the brewery: model and MIP-based heuristic
   Maristela Santos, Tamara Baldo, Reinaldo Morabito, Bernardo Almada-Lobo

2 - Dynamic lot sizing problem with minimum order quantities and remanufacturing option
   Irena Okhrin, Knut Richter

3 - Simultaneous production-distribution planning to coordinate multi-plant supply chains
   Luis Guimarães, Diego Klabjan, Bernardo Almada-Lobo
Scheduling with variable parameters I

1. Complexity analysis of an assignment problem with controllable assignment costs and its implications in scheduling
   Dvir Shabtay, Liron Yedidsion, Moshe Kaspi

2. Parallel machine scheduling with a variable common due window
   Mikhail Y. Kovalyov, Adam Janiak, Wladyslaw Janiak, Erhan Kozan, Erwin Pesch

3. Structural properties of time-dependent scheduling problems with the lp norm objective
   Stanislaw Gawiejnowicz, Wieslaw Kurc

4. Scheduling jobs with values dependent on their completion times
   Tomasz Krysiak, Adam Janiak
MD-15
Monday, 14:30-16:00
RB-2101

Nonlinear Optimization and Applications 3

Chair: Max Demenkov

1 - Multistart Coupled with a Derivative-Free Filter Local Search for Locating Multiple Solutions
   Florbela P. Fernandes, M. Fernanda P. Costa, Ana I. Pereira, Edite M.G.P. Fernandes

2 - Bilevel optimization in stability analysis of nonlinear dynamical systems
   Max Demenkov

3 - Numerical solution of nonlinear optimal control problems, A comparative study
   M. Navabi, E. Meshkinfam

4 - Performance Analysis of Partial Use of Local Optimisation Operator on Genetic Algorithm for TSP
   Milan Djordjevic, Andrej Brodnik
MD-16

Monday, 14:30-16:00

RB-2103

Uncertainty Analysis in Energy and Water Resources

Chair: John Boland

1 - Reconciling rainfall modelling on differing time scales
   John Boland, Julia Piantadosi

2 - Catching uncertainty of wind
   Yulia Gel

3 - SVM Models and Auction Protocols in Electricity Markets
   Carlo Lucheroni, Renato De Leone

4 - Mathematical methods for rainfall modelling
   Julia Piantadosi
MD-17
Monday, 14:30-16:00
RB-2105

Further Applications of Location Analysis

Chair: Mercedes Landete

1 - Assessing Optimal Routes in the Natural Park of Doñana (Spain)
   Eva Barrena, Francisco A. Ortega Riejos, Isabel Ternero, Miguel Angel Pozo

2 - A polyhedral study on location models with knapsack constraints
   Roberto Javier Cañavate Bernal, Mercedes Landete

3 - Delocation Models for Closing and Resizing Redundant Branches during Bank Restructuring
   Diego Ruiz-Hernandez, David Delgado-Gomez, Laureano Fernando Escudero, Joaquin Lopez-Pascual

4 - Different ways of locating spanning trees in a network
   Mercedes Landete, Alfredo Marín
MD-18

Monday, 14:30-16:00

RB-2107

Analysis of Price Dynamics and Herd Behavior

Chair: Frederik Druart

1 - Stock price dynamics and distribution of returns — before, during and after the financial crisis
   Tibor Kis, Marija Cileg, Gabriela Vicko

2 - Herding behavior of agents as a background of financial fluctuations
   Aleksejus Kononovicius, Vygintas Gontis, Bronislovas Kaulakys

3 - Bayesian statistical analysis of herding behaviours: an application to the Spanish equity mutual funds
   Pilar Gargallo, Laura Andreu, José Luis Sarto, Manuel Salvador
Financial Decision Making: Application of Mathematical Optimization

Chair: Katsumasa Nishide

1 - Competition and the Bad News Principle in a Real Options Framework
   Katsumasa Nishide, Kyoko Yagi

2 - Equilibrium in the Presence of Transaction Costs
   Masaaki Kijima

3 - Optimal Life Insurance Coverage and Annuities with Borrowing and a Leverage Constraint
   Teruyoshi Suzuki

4 - Robust Portfolio Optimization with Copulas
   Iakovos Kakouris, Berc Rustem
MD-20
Monday, 14:30-16:00
RB-2113

Energy consumption and price forecasting

Chair: Richard Weber

Paper moved to session TA-26
A hybrid model for forecasting the streamflow data
Alpaslan Yarar, Mustafa Onucyildiz, Hülya Yarar
MD-21
Monday, 14:30-16:00
RB-2115

Financial Mathematics and OR 4

Chair: Tansel Avkar

1 - A Parallel Procedure for Dynamic Multi-objective TSP
   Weiqi Li

2 - Foreign Direct Investment Trends and Comparative Analysis for Chosen Transition Countries
   Snjezana Pivac

3 - A mathematical solution to the Nigerian petroleum products supply crisis
   Adewoye Olabode

4 - Stochastic Dominance in economic and financial context, overview and applications
   Elena Almaraz Luengo, Eduardo Almaraz Luengo
MD-23
Monday, 14:30-16:00
RB-Delta

Various Advances in Generalized Differentiation and Optimization

Chair: Gerhard-Wilhelm Weber
Chair: Alexander Kruger

1 - Interior Epigraph Method for Nonsmooth and Nonconvex Optimization via Generalized Augmented Lagrangian Duality
Wilhelm Passarella Freire, Regina Burachik, C Yalcin Kaya

2 - A Novel Approach for Solving the Geometric Distance Problem
Helder Venceslau, Leonardo Nascimento, Adilson Elias Xavier, Gerhard-Wilhelm Weber

3 - Generalized Solutions and Optimal Investment in Infinite Horizon Control Problem in Capital Accumulation Model
Marta Kornafel
Pioneers in Operations Research

Chair: Graham Rand

1. Von Neumann and Vazsonyi: OR pioneers born in Budapest
   Graham Rand, Saul Gass

2. Steven Vajda, European OR pioneer
   Jakob Krarup

3. U.S. OR Pioneers: Engagements in European OR
   Arjang Assad
Renewable Energies

Chair: Mario Ragwitz

1 - A new perturbing parameter for interior point methods applied to short term hydroelectric scheduling
   Aurelio Oliveira, Lilian Carvalho

2 - Optimal Underground Pumped Hydroelectric Storage Design
   Amir José Daou Pulido, Hermann-Josef Wagner, Marco K. Koch, Eugen Perau, Ulrich Schreiber, André Niemann

3 - Investment Incentives under the Influence of Capacity Aggregation in Regulated Industries
   Sabine Pallas

4 - Pollution permits, Strategic Trading and Dynamic Technology Adoption
   Luca Taschini
1 - A comparison of multiple criteria methods for group decision making in forest management
   Concepcion Maroto, Marina Segura Maroto, Concepción Ginestar, Baldomero Segura, Juan Uriol

2 - Multi-criteria optimization method for designing a harvesting and cableway layout for a given road network for wood extraction
   Leo Bont, Hans Rudorf Heinimann, Richard Church

3 - EcoForest — A fictive problem for teaching spatially-explicit, multi-objective optimization in forestry
   Jochen Breschan

4 - Impact of carbon sequestration over the optimum forest rotation problem
   Yavuz Gunalay, Erhun Kula
MD-27
Monday, 14:30-16:00
CC-A25

Agent-based Modeling of Diffusion Processes

Chair: Christian Stummer

1 - The impact of customer dissatisfaction and negative word-of-mouth on the diffusion of innovations and the repurchasing behaviour: an agent based simulation
Markus Günther, Jana Sonnberger

2 - New product diffusion and supply chain production-sales policies: a comparative study
Tina Wakolbinger, Mehdi Amini, Michael Racer, Mohammad G. Nejad

3 - De-commoditization of a convenience product: an agent-based simulation of its market diffusion
Christian Stummer, Elmar Kiesling, Markus Günther, Rudolf Vetschera, Lea M. Wakolbinger
MD-28

Monday, 14:30-16:00

CC-A27

Nonsmooth Optimization II

Chair: Dominik Dorsch

1 - Equilibrium investments in a common value auction environment with endogenous signals
   Eleftherios Couzoudis, Markus Bürgi

2 - Local models in equilibrium optimization
   Vladimir Shikhman, Hubertus Th. Jongen, Dominik Dorsch

3 - On the structure of Nash equilibrium sets
   Dominik Dorsch, Hubertus Th. Jongen, Vladimir Shikhman

4 - Existence of a pure strategy equilibrium in finite symmetric games where payoff functions are integrally concave
   Takahiro Watanabe, Takuya Iimura
Selected Topics on Mixed-Integer Non-Linear Programming

Chair: Dennis Michaels

1 - Minimizing convex functions over integer points
   Michel Baes, Alberto Del Pia, Yurii Nesterov, Shmuel Onn, Robert Weismantel

2 - Solving MINLPs with SCIP
   Stefan Vigerske

3 - RedNLP - Heuristic Approach to Large-Scale MINLPs in Gas Transportation
   Ralf Gollmer, Rüdiger Schultz, Claudia Stangl

4 - Convex underestimation of edge-concave functions by a simultaneous convexification with multi-linear monomials
   Dennis Michaels, Martin Ballerstein
Emerging Applications in Logistics

Chair: Paul Trodden

1 - Multiperiod Optimal Power Flow Using Cross Decomposition
   Antonio Marmolejo

2 - Optimum Renewable Energy Portfolio for Regional Heating
   Secil Ercan, Zeynep Bekta?, Gulgun Kayakutlu

3 - Strategic Capacity Planning in Knowledge Intensive Organizations
   Manuel Mateo, Ernest Benedito, Rocío de la Torre, Amaia Lusa, Carme Martinez, Marta Mas

   Paper moved to session TA-03
   An MINLP approach to forming secure islands in electricity networks
   Paul Trodden, Waquas Ahmed Bukhsh, Andreas Grothey, Ken McKinnon
Theoretical developments in Soft OR

Chair: Jose-Rodrigo Cordoba-Pachon

1. Comparing and Contrasting the formal modelling techniques from Soft Systems Methodology and JOURNEY Making
   Giles Hindle

2. Decision Structures in Project Management
   Cathal Brugha

3. Critical awareness of worldviews in organisational change
   Mike Yearworth, Charlotte Dunford, Darren York, Patrick Godfrey
MD-33
Monday, 14:30-16:00
CC-A37

OR for Energy and Resource Development in Developing Countries

Chair: Javier Cano
Chair: Angel Udías

1 - Expanding the Hydroelectric Power Capacity of the Kwanza River
   Javier Cano, Kiombo Jean Marie, David Rios-Insua

2 - Valorization of riverbanks in the urban area
   Tomás Haná?ek

   Paper moved to session WD-38
   Role of carbon capture technologies in the Spanish industry in 2030 under a CO2 reduction scenario using the TIMES-Spain energy optimisation model
   Diego García, Helena Cabal, Machteld Van Den Broek, Yolanda Lechón, Antonio Alonso-Ayuso

4 - Export Diversification and Resource-based Industrialization: The Case of Natural Gas
   Olivier Massol

   Paper moved from session WD-38

5 - Multicriteria Decision Aid for Equitable Water Distribution Network
   Jose Luis Castaño Cabrales, Angel Udías, David Rios-Insua, Javier Cano, Hocine Fellag
MD-34
Monday, 14:30-16:00
CC-A39

Assignment and multicriteria games

Chair: Marina Nunez

1 - Z-Equilibrium for a Mixed Strategic Multicriteria Game
   Arezki Ferhat, Mohammed Said Radjef

2 - Bilateral assignment games with the Monge property
   Javier Martinez-de-Albeniz, Carles Rafels

3 - A geometric characterization of the nucleolus of the assignment game
   Marina Nunez, Francesc Llerena
1 - The Efficiency Measure Over Time with Undesirable Outputs: A Case of Auto and Auto Component Industry in Taiwan
Yi-Chiuan Lai, Chin-Min Hsu

2 - An application of canonical correlation analysis for the econometric estimation of the stochastic production frontier
João Silveira, Attus Moreira

3 - Evaluation of the efficiency of investments in the host cities of the Olympic Games using Data Envelopment Analysis (DEA)
Paula Guimaraes, Nissia Bergiante

Paper moved from session WB-32

4 - A holistic approach for assessing the performance of maternity and newborn services
Olga Li, Sérgio Santos, Carla Amado

Paper moved to session WD-32

Efficiency evaluation and analysis of Third Party Logistics in Brazil
Mariana Almeida, Luis Oliveira
MD-36
Monday, 14:30-16:00
CC-A43

DEA and Performance Measurement: Applications 2

Chair: Luis C. Dias

1 - The assessment of livability in European cities
    Andreia Zanella, Ana Camanho, Teresa Galvão Dias

2 - Towards sustainability in construction: a DEA assessment at an urban level
    Isabel Horta, Ana Camanho, Teresa Galvão Dias

3 - An Application of Categorical Models of Data Envelopment Analysis
    Luka Neralic, Dubravko Hunjet, Richard E. Wendell

4 - Benchmarking in maintenance and repairing in electricity distribution networks using an additive DEA model with incorporation of preferences
    Maria Gouveia, Luis C. Dias, Carlos Henggeler Antunes
Bioinformatics IV

Chair: Piotr Lukasiak

1 - Protein structure quality assessment and modeling support framework
   Maciej Antczak, Piotr Lukasiak, Jacek Blazewicz, Krzysztof Fidelis

2 - OR applications for protein structure modelling and docking
   Maciej Milostan

3 - Quality assessment methodologies in analysis of structural models
   Piotr Lukasiak

4 - Rule extraction for pre-eclampsia based on Genetic Algorithm
   Shohreh Alimohammadi, Amene Alimohammadi, Mahdi Ashrafi
Combinatorial Multiobjective Optimization

Chair: Martin Josef Geiger

1 - Pareto Set Approximation for the Multiobjective Set Covering Problem
   Margaret Wiecek

2 - Multiobjective combinatorial optimization for selecting treatment regimes in forestry
   Dmitry Podkopaev, Artti Juutinen, Kaisa Miettinen, Mikko Monkkonen, Pasi Reunanen, Olli-Pekka Tikkanen

3 - A bi-objective approach to reschedule new jobs in a one machine model
   Jacques Teghem, Daniel Tuyttens

4 - Immune Algorithm for Multi-Objective Schedule Optimization in Railway Transport
   Anatoly Levchenkov, Ivars Alps, Mikhail Gorobetz
MD-39
Monday, 14:30-16:00
HH-Cousteau

MA DM Applications IV

Chair: Chin-Tsai Lin
Chair: Chie-bein Chen

1 - The study of the university students consumer behavior tea-shops as example
Yuan-Du Hsiao, Jen-Chia Chang, Mu-Hui Lai, Liang-Yuan Hsiung

2 - The Study on Teachers’ Willingness to Adopt Computer-Aided Instruction in Public Vocational High Schools
Jen-Chia Chang, Yuan-Du Hsiao, Mu-Hui Lai, Liang-Yuan Hsiung

3 - A study on relationship model among travel motivation, travel type, travel involvement, and travel benefit of Facebook users: A case of Taiwan domestic tourism
Pei-Ting Chen, Tang-Chung Kan, Kuo Tzu-hsuan

4 - Multi-Criteria Comparison of Catering Service Companies Using Grey Relational Analysis: The Case of Turkey
Alper Hamzadayi, Simge Yelkenci Kose, Sener Akpinar, Atabak Elmi, Hanifi Okan Isguder
MD-40
Monday, 14:30-16:00
HH-Livingstone

MADM Applications VIII

Chair: Chin-Tsai Lin
Chair: Chie-bein Chen

1 - A Radial Basis Function Neural Network (RBFNN) Approach for Multi-label Text Categorization Problems
   Tai-Yue Wang, Hui-Min Chaing

2 - Fuzzy MCDM technique for planning the wetland environment
   Vivien Y.C. Chen, Kuo Tzu-hsuan, Tang-Chung Kan

3 - Improving the quality of leisure and tourism for Theme Parks with a MCDM Model
   Gwo-Hshiung Tzeng, Vivien Y.C. Chen

4 - Using F-PROMETHEE for evaluating and ranking constructive projects contractors (A Case Study of Mehr Housing Project of Hashtgerd New City - Iran)
   Mahdi Nasrollahi
AHP/ANP 3

Chair: William Wedley

1 - Correct Derivation Of Ratio Scale Preference Values From Pairwise Comparison Matrices
   Eng Choo, William Wedley

2 - Using Analytic Network Process (ANP) in Four Links Model
   Ihsan Yüksel, Erdem Aksakal, Metin Dagdeviren

3 - A hybrid MCDM approach to assess the sustainability of students' preferences for university selection
   Kabak Mehmet, Metin Dagdeviren

4 - Ahp matrix convergence — a unit interpretation
   William Wedley, Eng Choo
MD-42
Monday, 14:30-16:00
BW-Amber

EEPA 2012 - 2

Chair: Michel Bierlaire

1 - SPRINT: Optimization of Staff Management for Desk Customer Relations Services
Daniele Vigo, Claudio Caremi, Angelo Gordini, Sandro Bosso, Giuseppe D’Aleo, Beatrice Bellergia

2 - Logistic planning using DSS FlowOpt
Mikael Rönnqvist, Patrik Flisberg, Mikael Frisk

3 - Flood Prevention by Optimal Dike Heightening
Kees Roos, Dick den Hertog, Ruud Brekelmans, Carel Eijgenraam
MD-43
Monday, 14:30-16:00
BW-Granite

Probabilistic Programming

Chair: Tamas Szantai
Chair: Andras Prekopa

1 - A probabilistic constrained stochastic programming problem, where the technology coefficients in the stochastic constraints are normally distributed random variables
Andras Prekopa, Tamas Szantai

2 - Solution of probabilistic constrained stochastic programming problems with discrete random variables and mixed decision variables
Kunikazu Yoda, Andras Prekopa

3 - Single commodity network design under probabilistic constraint with continuous random variables
Olga Myndyuk, Andras Prekopa

4 - Parallelisation of the so-called Cluster Benders Decomposition algorithm for solving two-stage stochastic linear problems
Francesc Solsona, LluisM Pla, Josep Lluis Lerida, Jordi Mateo
MD-44
Monday, 14:30-16:00
BW-Marble

Topics in Revenue Management

Chair: Fredrik Odegaard

1 - Illustrating the need to integrate pricing and supply chain decision-making
   Peter Bell

2 - Optimal pricing and production decision in the presence of substitution
   Sang Won Kim, Peter Bell

3 - New results concerning probability distributions with increasing generalized failure rates
   Mihai Banciu, Prakash Mirchandani

4 - Retail Selling with All-Pay Auctions
   Fredrik Odegaard, Chris Anderson
Management accounting and management control 2

Chair: Stephan Leitner

1 - Dynamic pricing & seat control problem with cancellation and refund policy in airlines
   Moon-Gil Yoon, Hwi Young Lee

2 - Product cost distortions in full cost accounting - A Monte Carlo simulation-based analysis
   Catherine Grisar, Matthias Meyer

3 - Interactions among biases in costing systems: A simulation approach
   Stephan Leitner
ME-01
Monday, 16:30-17:30
Opera

Plenary Lecture: Professor Finn Kydland

Chair: Marielle Christiansen

1 - Dynamic Programming and Economics
   Finn Kydland
Tutorial Lecture: Professor Anita Schöbel

Chair: Gerhard Wäscher

1 - Lines, Timetables, Delays: Models and Trends in Optimization of Public Transport
   Anita Schöbel
Graph Models in Logistics and Scheduling

Chair: Maksim Barketau

1 - Minimizing maximal weight of subsets in a bipartite graph
   Maksim Barketau, Erwin Pesch, Yakov Shafransky

2 - Batch scheduling and transfer line design problems
   Alexandre Dolgui, Sergey Kovalev, Mikhail Y. Kovalyov, Jenny Nossack, Erwin Pesch

3 - Periodic Scheduling for Wireless Access Networks to the Internet
   Celia Glass

4 - New Bounds and Constraint Propagation Techniques for the Clique Partitioning Problem
   Erwin Pesch, Florian Jaehn
1 - The efficiency improving of traction drive test bench with supercapacitor energy storage system
   Genadijs Zaleskis, Viesturs Brazis

2 - How to place products in a warehouse to minimize forklifts worktime — a simple data mining based algorithm
   Grzegorz Tarczynski

3 - How the NPV and average cost criterion lead to different decisions in the vending machine problem
   Erwin van der Laan

4 - An MINLP approach to forming secure islands in electricity networks
   Paul Trodden, Waqquas Ahmed Bukhsh, Andreas Grothey, Ken McKinnon
Air Transportation and Propagation

Chair: Claus Gwiggner

1 - Optimizing the Staff Schedule for Airport Immigration
   Phi Doan

2 - Improvement of Static Runway Assignment Using Queueing Model
   Ryota Mori

3 - Sequencing and Swapping Probabilities for Traffic Synchronization
   Sakae Nagaoka, Claus Gwiggner, Yutaka Fukuda

   Paper moved from session WB-12

4 - Analysis of the variability of travel conditions and flows along a transit line
   Vincent Benezech, Fabien Leurent
Maritime Transportation in Offshore Industry

Chair: Irina Gribkovskaia

1 - A simulation study of the fleet sizing problem for offshore supply vessels
   Yauhen Maisiuk, Irina Gribkovskaia

2 - Routing and scheduling of offshore supply vessels with fuel consumption minimization through determining the best discrete value of sailing speed on each leg
   Tatsiana Barysavets, Irina Gribkovskaia, Mikalai Mikhailau

3 - Routing of supply vessels to offshore installations with deliveries and pick-ups of multiple commodities
   Eugen Sopot, Irina Gribkovskaia, Gilbert Laporte

4 - Speed strategies for green supply vessel planning
   Ellen Karoline Norlund, Irina Gribkovskaia
■ TA-06

Tuesday, 8:30-10:00
RB-Gamma

Engineering and Hybrid search

Chair: Saïd Hanafi

1 - Local search methods for conflict-free routing in a multi-processor system on chip
   Marc Sevaux, Boureima Zerbo, André Rossi, Jean-Charles Creput

2 - A PSO-based Heuristic for energy-aware scheduling of Workflow applications on cloud computing
   Sonia Yassa, Rachid Chelouah, Hubert Kadima, Bertrand Granado

3 - Software Interfaces for Heuristic Solvers and the Future of Hyflex
   Andrew J. Parkes, Matthew Hyde, Gabriela Ochoa, Ender Özcan

   Hassan Taheri
Vehicle routing in practical settings

Chair: Jorge E. Mendoza
Chair: Victor Pillac

1 - Solving an Industrial Waste Collection Problem using a Hybrid Column Generation Algorithm
Jesper Larsen, Kristian Milo Hauge

2 - Multi-stage, multi-period distribution planning with inventory and routing considerations
Dmitry Ivanov, Boris Sokolov, Alexander Pavlov

3 - Extending the Periodic Vehicle Routing Problem: A Case Study in Beverage Logistics
Dominik Pfeiffer, Bernd Hellingrath

4 - A real-life Inventory Routing Problem
Benoît Tricoire, Eric Pinson
Supply Chain Design

Chair: Alparslan Serhat Demir

1 - Use of decomposition method in forest fuel supply chain  
   Amirhossein Sadoghi, Helene Lidestam

2 - Modular Supply Chain Optimization in the Construction Industry: An Application  
   Pedro Rijo, Amílcar Arantes

3 - Robust Supply Chain Network Design by Considering Different Risk Mitigation Strategies  
   Faeghe Mohamad Doost, Shabnam Rezapour

4 - Determining Multiple Warehouse Locations and Customers to be Served by Using Genetic Algorithm  
   Alparslan Serhat Demir
TA-09
Tuesday, 8:30-10:00
RB-Zeta

Cutting and Packing 5

Chair: José Fernando Gonçalves

1 - A Comparison of Approaches for Solving the 3D Container Ship Loading Planning Problem by Representation by Rules
Anibal Azevedo, Cassilda Ribeiro, Galeno Sena, Antônio Chaves, Luiz Salles Neto, Antônio Moretti

2 - A global optimization approach for three dimensional rectangular packing problems
Pei-Chun Wang

3 - Constraint programming approaches, search strategies and bounds in problems of orthogonal packing.
Marat Mesyagutov, Gleb Belov, Guntram Scheithauer

4 - A biased random key genetic algorithm for the 2D and 3D bin packing problem
José Fernando Gonçalves
Inventory Management 2

Chair: Farouk Yalaoui
Chair: Christian Larsen

1 - Dynamic supply chain inventory management: a generic mathematical programming approach
   Joaquim Jorge Vicente, Susana Relvas, Ana Paula Barbósa-Póvoa

2 - The relationship between purchasing strategy, manufacturing performance and financial performance
   Ahmed Attia

3 - Spare parts sharing with joint optimization of maintenance and inventory policies
   Christian Larsen, Hartanto Wong, Lars Relund Nielsen
TA-11

Tuesday, 8:30-10:00

RB-Iota

Transport Networks

Chair: Anna Sciomachen

1 - Feeder bus network design problem: a new solving procedure and real size applications
   Francesco Ciaffi, Ernesto Cipriani, Marco Petrelli

2 - Delivery splitting problem with multiple origins
   Tomas Subrt

3 - Freight terminal location in multimodal networks
   Anna Sciomachen, Daniela Ambrosino
Semiconductor and Pharmaceuticals Production

Chair: Lars Moench

1 - Stochastic Programming for New Product Introduction in the Pharmaceutical Industry
   Klaus Reinholdt Nyhuus Hansen, Martin Grunow

2 - Enhancing standard mid-term planning in semiconductor manufacturing
   Phillip Kriett, Martin Grunow

3 - Order release planning by iterative linear programming and simulation: An analysis of the underlying coordination mechanism
   Hubert Missbauer

4 - A Scheduling Approach for Complex Job Shops with Transportation
   Lars Moench, Rene Driessel
Scheduling with variable parameters II

Chair: Yakov Shafransky
Chair: Stanislaw Gawiejnowicz

1 - Minimizing Maximum Lateness for Single Machine under Uncertain Due Dates and Precedence Constraints
Dzmitry Slednev, Yakov Shafransky

2 - Scheduling precedence-constrained jobs with mixed processing times and maximum cost criterion
Marek D?bczy?ski, Stanislaw Gawiejnowicz

3 - Scheduling jobs on unrelated parallel machines with general positional deterioration to minimize the total processing cost
Yakov Shafransky

4 - Multicriteria optimisation of construction project schedules
Grzegorz Ginda, Miroslaw Dytczak, Tomasz Wojtkiewicz
Semi-infinite methods and applications

Chair: Ana I. Pereira

1 - Strong duality in robust linear semi-infinite programming
   Miguel Goberna

2 - General semi-infinite programming
   Vladimir Shikhman, Hubertus Th. Jongen

3 - Reduction method with multistart technique for semi-infinite programming problems
   Ana I. Pereira, Florbela P. Fernandes, M. Fernanda P. Costa, Edite M.G.P. Fernandes

4 - Study of optimization problems with analytic constraint functions
   Tatiana Tchemisova, Olga Kostyukova
TA-16
Tuesday, 8:30-10:00
RB-2103

Asset management applied to energy and the environment

Chair: Thomas Archibald

1 - Long-term asset maintenance optimization at Scottish Water
   Travis Poole, Thomas Archibald, Robert Murray

2 - Practical Issues in Asset Management within UK Water Industry
   Jake Ansell

3 - Modelling Asset Deterioration using Structured Expert Judgement
   Graeme Blair, Deborah Gee, Matthew Revie, Lesley Walls
Covering Models

Chair: Ioannis Giannikos

1 - Multi-criteria covering-based location of volunteer fire departments
   Brigitte Werners, Dirk Degel

2 - Non-full coverage facility location problems
   Maria Cortinhal

3 - Locating Undesirable Facilities
   H.a. Eiselt, Vladimir Marianov

4 - Using Clustering Heuristics to Solve a Family of Demand Covering Models
   Ioannis Giannikos, Basilis Boutsinas, Antiopi Panteli
Advances in Location Modeling

Chair: Dmitry Krass

1 - Prepositioning of Supplies in Preparation for a Hurricane with Forecast Information Updates
   Rajan Batta, Gina Galindo

2 - Organization of a public service through the solution of a Districting Problem
   Carmela Piccolo, Giuseppe Bruno

3 - Inventory Location and Transshipment Problem
   Dmitry Krass, Oded Berman, Alex Shlakhter
Pension Funds

Chair: Elena Vigna

1 - A risk-based premium: What does it mean for DB plan sponsors?
   An Chen, Filip Uzelac

2 - Mean-variance optimization in DC plan with stochastic interest rate
   Elena Vigna, Francesco Menoncin

3 - Optimal consumption, investment and life insurance with surrender option guarantee
   Morten Tolver Kronborg

4 - Allowing for Tail Risk, and Aversion to Tail Risk, in Optimal Portfolios for Long-Horizon Investors
   Iqbal Owadally, Zinoviy Landsman
Multicriteria Analysis for Investment Decision Making

Chair: Luiz F. Autran M. Gomes

1 - Frameworks of Strategic Decision Behavior on Investment and Risk Management
   Mei-Chen Lo

2 - An Approach to Multicriteria Sorting within the Verbal Decision Analysis Paradigm
   Eugenia Furems

3 - Comparing decisional maps
   Valérie Brison, Marc Pirlot

4 - Using the Choquet-extended TODIM method for a multicriteria analysis of improvements in a major road in the Southeastern Region of Brazil: the Paraty-Cunha Highway
   Luiz F. Autran M. Gomes, Maria Augusta Machado
Financial Mathematics and OR 5

Chair: Tansel Avkar

1 - Using the coverage data structure to solve a bi-criteria constructive model aiding to identify non-dominated portfolios
   Javier Pereira, Fernando Paredes

2 - An EPQ Model for Deterioration Items and Exponential Demand Rate Taking into Account the Time Value of Money
   Vikram jeet Singh

3 - Pricing fx forwards in OTC markets - new evidence for the pricing mechanism when faced with counterparty risk
   Stefan Stöckl, Alexander Leonhardt, Andreas Rathgeber, Johannes Stadler

4 - Qualitative multi-attribute model for evaluating companies' interoperability
   Borka Jerman Blazic, Vladislav Rajkovic, Ar?nas Bareisis, Ausra Kentrait?
Institutional and Technological Changes in Market and Transitional Economies

Chair: Jean-Francois Emmenegger
Chair: Ludmilla Koshlai

1 - DSS for technological planning
Oleksandr Pylypovskyi, Ludmilla Koshlai, Petro Stetsyuk

2 - Modeling the Returns of Securities on the Financial Markets
Jean-Francois Emmenegger

3 - Forecasting Ukrainian cargo transport system indicators
Elena Pervukhina, Jean-Francois Emmenegger, Victoria Golikova

4 - Peculiarities of Labour Market in a Transition Economy
Ludmilla Koshlai
1 - An inverse function result and some applications to sensitivity of generalized equations  
Gabor Kassay

2 - Extensions of Metric Regularity  
Alexander Kruger, Andrei Dmitruk

3 - Frechet and proximal Regularity of perturbed distance functions at points in the target set in Banach spaces  
Messaoud Bounkhal

4 - Some recent contributions to convex calculus  
Marco A. López-Cerdá
Demand Forecasting

Chair: Aris Syntetos

1 - Grouping seasonality and the formation of groups
   Aris Syntetos, John Boylan, Mona Mohammadipour

2 - Forecasting in production planning by adaptive exponential smoothing methods
   Frank Herrmann

3 - Forecasting Intermittent Demand by Hyperbolic-Exponential Smoothing
   Armagan Tarim, Steven Prestwich, Roberto Rossi, Brahim Hnich

4 - Stochastic models for time-dependent intermittent demand
   Clint Pennings, Jan van Dalen, Erwin van der Laan
Modelling Markets with Imperfections

Chair: Christoph Weber

1 - Cartelization in the natural gas industry, a model-based analysis
   Albert Banal Estanol, Steven Gabriel, Olivier Massol

2 - Expectation Formation on Future Markets and Boom-and-Bust Cycles in Electricity Markets: Evidence from an Agent-Based Simulation
   Daniel Ziegler

3 - Decision problems including limited liquidity in energy markets
   Oliver Woll, Christoph Weber

4 - Planning of Energy Supply Chains based on Domestic Energy microgeneration
   Georgios Kopanos, Michael Georgiadis, Efstratios Pistikopoulos
Optimization in Design of Water Systems

Chair: Elcin Kentel
Chair: Halil Önder

1 - An improved decomposition-based heuristic for the pressurized water irrigation network design problem
Margarida Pato, Graça Gonçalves, Luis Gouveia

2 - Use of spreadsheet optimization for management in groundwater engineering
Halil Önder

3 - Estimation of aquifer parameters in groundwater management using spreadsheet optimization as an inverse problem
Elcin Kentel, Halil Önder, Cüneyt Ta?kan

Paper moved to session WA-27
A multicriteria decision scheme for water pipe replacement prioritization
Youssef Tlili, Amir Nafi

Paper moved from session MD-20
5 - A hybrid model for forecasting the streamflow data
Alpaslan Yarar, Mustafa Onucyildiz, Hülya Yarar
Inequality Averse Decisions

Chair: Alec Morton
Chair: Nikolaos Argyris

1 - Combining equity and utilitarianism in a mathematical programming model
   Hilary Paul Williams, John N. Hooker

2 - Equitable preferences: representation and use in practical problems
   Nikolaos Argyris

3 - Incorporating preference information in multicriteria problems with equity concerns
   Ozlem Karsu, Alec Morton

4 - Aversion to health inequalities in healthcare prioritisation: a multiobjective mathematical programming perspective
   Alec Morton
1. **A poisson input queueing system for threshold policy of machine repair problem with degraded failure**
   Rekha Choudhary

2. **Expansion Planning of Storage Technologies in Renewable Generation Systems**
   Christian Kraemer, Andreas Schäfer, Manuel Jäkel, Albert Moser

   *Paper added to session*

3. **The Optimality Antisymmetrical rank function in poset**
   Zahra Yahi, Sadek Bouroubi

   In studying the optimality rank function, several results are given. A sufficient condition is given by Alexiv. The optimality of the rank function depends also on the type of the poset; e.g., for the rank function about a distributive poset, a normal poset is optimal. Our objective are studies of optimality of the Antisymmetrical rank function in a particular poset. We give some sufficient condition of the Antisymmetrical rank function and some results in relation with the optimality of the rank function in poset.
MINLP in Airline and Air Traffic Management applications

Chair: Claudia D’Ambrosio
Chair: Sonia Cafieri

1 - On solving the collision avoidance problem for ATM by solving a Mixed 0-1 nonlinear optimization model heuristically
   Laureano Fernando Escudero, Antonio Alonso-Ayuso, F. Javier Martin-Campo

2 - Conflict resolution by minor speed adjustments
   David Rey, Christophe Rapine, Rémy Fondacci, Nour-Eddin El Faouzi

3 - Airline tail assignment optimization: the impact of aircraft heterogeneity
   Patrícia Ribeiro, Susana Relvas, Nuno Leal

4 - Aircraft conflict avoidance: a mixed-integer nonlinear optimization approach
   Sonia Cafieri
1 - Heuristic decomposition and LP-based scheduling in make-and-pack production
   Norbert Trautmann, Philipp Baumann

2 - Modeling Formulation and Solution Approach for a Continuous Process Problem
   Krystsina Bakhrankova, Truls Flatberg

3 - Planning of a continuous production process in the printing industry
   Philipp Baumann, Norbert Trautmann

4 - Comparing models for operational production planning and scheduling in single-stage continuous processes: Process Systems Engineering vs. Operations Research
   Ana Paula Barbosa-Póvoa, Pedro Amorim, Bernardo Almada-Lobo, Tânia Pinto_Varela
TA-31
Tuesday, 8:30-10:00
CC-A33

Data Mining: Web and Social-Oriented Applications

Chair: Takashi Onoda
Chair: Anastasia Motrenko

1 - An evaluation of the Generalized Additive Neural Network spam filtering approach
Tiny Du Toit, Hennie Kruger

2 - Applying hybrid models to analyze the adoption intention of mobile applications
Yang-Chieh Chin, Chiao-Chen Chang

3 - Semantic Web services composition with query rewriting under constraints
Khaled Sellami, Mohamed Ahmed-Nacer, Rachid Chelouah, Hubert Kadima, Nadia Halfoune

4 - Logical analysis of data for a study of proverbs
Jorge Santos, Luís Cavique, Armando Mendes
Soft OR case studies

Chair: Giles Hindle

1 - Extending WASAN — Case Study of a UK Police Force
   Chris Smith, Duncan Shaw

2 - The secret’s in the mix: using OR to inform learning and teaching developments
   Jo Smedley

3 - A conceptual modelling framework for Public Health economic modelling
   Hazel Squires, Jim Chilcott, Ron Akehurst, Jennifer Burr

4 - Participatory Decision Processes in Rural Communities in Tanzania
   Joe Kakeneno, Cathal Brugha
OR and Transportation: Applications in Developing Countries

Chair: Youssef Masmoudi
Chair: Habib Chabchoub

1 - Static multiclass truck assignment model: an application to Nigeria
Precious Ikem, Michael Bell

2 - New approach to the Single Track Railway Scheduling Problem
Maya Laskova, Alexander Lazarev, Elena Musatova

3 - Humanitarian Operations Research in Southern Africa
Hildah Mashira
Environment and Sustainable Development - Green Teachers

Chair: Azizah Hanim Nasution

1 - A Markov-based model in managing coordination relationship of school communities to achieve environmental behaviour
   Azizah Hanim Nasution, Herman Mawengkang

2 - A decision analysis approach model to maximize students’ cognition of environmental problems
   Hidayati Hidayati, Azizah Hanim Nasution

3 - A Stochastic Programming model for Sustainable Production Planning of Crude Palm Oil Industry
   Hendaru Sadyadharma, Herman Mawengkang

   Paper moved from session WA-17

4 - Fish Processed Production Planning Under Uncertainty Considering Quality
   Tutiarny Naibaho
Pricing and Supply Chain Management

Chair: Kathryn E. Stecke

1 - Impact of Returns Policies on Retail Assortment and Pricing Decisions
   Alex Grasas, Aydin Alptekinoglu

2 - Dynamic Pricing of Fashion Products: The Effects of Demand Learning and Strategic Consumer Behavior
   Yossi Aviv

3 - The study of a time-dependent Freight Transportation Problem
   Xiang Song

4 - An Integrated Approach to Green Product and Supply Chain Design
   Cornelia Schoen
DEA and Performance Measurement: Applications 3

Chair: Emmanuel Thanassoulis

1 - Prioritizing project activities via DEA methodology
   Yossi Hadad, Baruch Keren, Lea Friedman

2 - Cognitive Effects of DEA on Performance Assessment
   Nadia Vazquez Novoa, Heinz Ahn

3 - More New Features of Data Envelopment Analysis Online Software (DEAOS)
   Mohammad-Reza Alirezaee, Ali Niknejad, Nassrin Alirezaee

4 - Data Envelopment Analysis software for the advanced users
   Ali Emrouznejad, Emmanuel Thanassoulis
1 - Utility of quantitative methods in strategy — making process for blood donation system — logistics approach
   Sebastian Twaróg, Anna Ojrzyńska, Grażyna Trzpiot, Jacek Szotysek

2 - A simulation-based optimization tool for patient allocation to clinical studies
   Stephan Tiesler, Johannes Ruhland

3 - Using decision analytic modeling for the optimal dichotomization of diagnostics
   Gimon de Graaf, Douwe Postmus

4 - Custom contract and the role of Group Purchasing Organizations (GPOs) as information intermediaries
   Vera Tilson, Abraham Seidmann, Rajib Saha
Interactive Multiobjective Optimization: Methods and Applications

Chair: Kaisa Miettinen
Chair: Jussi Hakanen

1 - Interactive Gradient Projection and Reference Point Approach for Multiobjective Performance Planning
   Dong-Ling Xu, Jian-Bo Yang

2 - Decision making in a multi-objective paper mill design problem
   Ingrida Steponavice, Sauli Ruuska, Kaisa Miettinen

3 - Consistent parametric representation of Pareto optimal solutions via geometric criteria
   Alberto Lovison, Markus Hartikainen

4 - Parameterized achievement scalarizing functions based approach to solve multicriteria median location problem
   Olga Karelkina
TA-39

Tuesday, 8:30-10:00

HH-Cousteau

MCDA: New Approaches and Applications in Financial Markets

Chair: Gabriela Fernández Barberis

1 - Multiple Criteria Decision Aid Methods with New Generalized Criteria: an application to the financial markets
   Gabriela Fernández Barberis, María del Carmen Escribano Rodríguez, María Del Carmen García Centeno

2 - Towards a new classification of Spanish Saving Banks: application of multicriteria decision aid methods
   Milagros Gutiérrez Fernández, Gabriela Fernández Barberis, Ricardo Palomo Zurdo
Dynamic Pricing

Chair: Mikhail Nediak

1 - Revenue Management with Lifetime Value Considerations: Balancing Customer Acquisition and Retention Spending for Firms with Limited Capacity
Anton Ovchinnikov

2 - Use of exact algorithms for Partially Observable Markov Decision Processes in solving a Dynamic Pricing problem
Shahin Abbaszadeh

3 - Name-Your-Own-Price sales channels: Can strategic consumers improve their performance with information exchange or collaboration?
Mikhail Nediak, Tatsiana Levina, Yuri Levin, Jeff McGill
TA-41
Tuesday, 8:30-10:00
HH-Heyerdahl

AHP/ANP 4

Chair: Y. Ilker Topcu

1 - Applying ANP to Select Strategic Alliances for International Tourist Hotels in Taiwan
   Su-Chuan Shih

2 - An Integrated Multi-Criteria Approach for the Evaluation and Control of Strategic Options
   Ralf Kaspar

3 - A Multi-Criteria Based Evaluation of “Innovation Strategy Selection”
   Ozge Surer, Sezi Cevik Onar, Y. Ilker Topcu

   Paper moved from session MC-41

4 - Utilization of Multi-Criteria Decision Making Methods at the Phase of Compare and Contrasting of the Course of Actions within the Military Decision Making Process.
   Erman Atak
TA-42 has moved to WB-42

TA-42 has moved from WB-42

TA-42

Tuesday, 8:30-10:00

BW-Amber

Simulation Models and Decision Analysis

Chair: Erik Kropat
Chair: Silja Meyer-Nieberg
Chair: Sonia De Cosmis

1 - Modelling a Distribution Operation Using Discrete Event-Based Simulation
   Amílcar Arantes

2 - Generation of EPC based Simulation Models
   Christian Mueller

3 - Rare-Event Estimation for Density Dependent Models
   Adam Grace

4 - Adding adaptability to Discrete Event Simulation through parameterisation
   Francesco Aggogeri, Gian Mauro Maneia, Marco Mazzola, Angelo Merlo
TA-43

Tuesday, 8:30-10:00

BW-Granite

Stochastic programming in energy

Chair: Asgeir Tomasgard

1 - The value of storage at household level: A smart grid perspective  
   Stein W. Wallace

2 - Gas Network Topology Extension for Multiple Scenarios  
   Jonas Schweiger

3 - A Bilevel Programming Approach to Modeling of Transmission Capacity Planning  
   Paolo Pisciella, Marida Bertocchi, Maria Teresa Vespucci

4 - Long-term expansion of the European Power System Under Various Emission Mitigation Scenarios  
   Christian Skar, Asgeir Tomasgard, Gerard Doorman
**Computer vision (1)**

Chair: Ivan Reyer  
Chair: Fei Yan  
Chair: Teofilo deCampos

1. **Anomaly detection in machine perception systems**  
   Josef Kittler

2. **Learning Optimal Semantically Relevant Visual Dictionary using Evolutionary Algorithms**  
   Ashish Gupta

3. **Transductive Transfer Learning for Action Recognition**  
   Teofilo deCampos, Nazli FarajiDavar
1 - An Approximate Scenario-based Approach to Design Robust Supply Chain Networks under Uncertainty
   Walid Klibi, Alain Martel

2 - On a strict solution algorithm for a stock replenishment policy with fill-rate constraints in the two-step supply chain
   Takashi Hasuike, Koji Okuhara, Nobuyuki Ueno

3 - Stochastic and dynamic patient transportation
   Jakob Puchinger, Ulrike Ritzinger, Richard Hartl

4 - Supply chain coordination with capacity reservation and emergency option
   Guillaume Amand, Yasemin Arda
Tutorial Lecture: Professor Guy Desaulniers

Chair: Marc Sevaux

1 - 20 years of column generation for the vehicle routing problem with time windows
Guy Desaulniers
TB-02
Tuesday, 10:30-12h00
RB-Beta

Scheduling and Logistics

Chair: Vitaly Strusevich

1 - Adding an Extra Machine to a Shop Parallel Identical Machines
   Vitaly Strusevich, Kabir Rustogi

2 - Approximation Schemes for Scheduling on a Single Machine Subject to
    Cumulative Deterioration and Maintenance
   Kabir Rustogi, Vitaly Strusevich, Hans Kellerer

3 - Supply Chain Scheduling in a Competitive Environment
   Miguel Zamarripa, Antonio Espuña

4 - Scheduling of coupled tasks with high multiplicity
   Michaël Gabay, Gerd Finke, Nadia Brauner
■ TB-03
Tuesday, 10:30-12h00
RB-L1

Logistics, Transportation, Traffic - 3

Chair: Markus Bohlin

1 - A heuristic solution approach for a real-size hierarchical hub location problem
   Julia Sender, Uwe Clausen

2 - Auto-Carrier Distribution Problem with Highly Variable Daily Demand at Dealers
   Tsung-Sheng Chang, Hao-Ping Jiang

3 - Monte Carlo Simulation Techniques with Parallel Heuristics applied to solve the Capacitated Vehicle Routing Problem
   Thiago Guimaraes, Luis Gustavo Pereira, Wesley José Nogueira Medeiros

4 - Shunting with car mixing using column generation
   Markus Bohlin, Florian Dahms, Holger Flier, Matus Mihalak
Approaches for Integer Programming

Chair: Juan José Salazar González
Chair: Martine Labbé

1 - **Optimal interval scheduling with a resource constraint**
   Carlo Filippi, Enrico Angelelli, Nicola Bianchessi

2 - **Capacitated Network Design with Facility Location**
   Ivana Ljubic, Bernard Gendron, Stefan Gollowitzer

3 - **A Branch-Cut-and-Price algorithm for the Piecewise Linear Network Flow Problem**
   Tue Christensen, Martine Labbé
Problems on graphs I

Chair: Nair Abreu

1 - On rational approximation of geometric graph
   Vladimir Benediktovich

2 - New spectral upper bounds on the size of k-regular induced subgraphs
   Domingos Cardoso, Sofia Pinheiro

3 - Graph spectra and combinatorial optimization
   Nair Abreu, Claudia Justel, Domingos Cardoso
TB-06

Tuesday, 10:30-12h00
RB-Gamma

Performance evaluation and new metaheuristics

Chair: Cristina C. Vieira

1 - Using a multicriteria function to evaluate metaheuristics performance
   Paulo Oswaldo Boaventura-Netto, Valdir Melo

2 - Performance Assessment of Electromagnetism-like Algorithm
   Alkin Yurtkuran, Erdal Emel

3 - From constructive search to local search
   Cristina C. Vieira, Carlos M. Fonseca

4 - Algorithm of inspired by virus and bacterium attack: A meta-heuristic approach as an optimization tool
   Mahdi Bashiri, Masoud Bagheri, Zeinab Rasoolinezhad
1 - A Parallel Procedure for Dynamic Multi-objective TSP  
Weiqi Li

2 - Solving the vehicle routing problem with time windows by an interior point branch-price-and-cut framework  
Pedro Munari, Jacek Gondzio

3 - A Parallel Algorithm for Vehicle Routing Problem on GPUs  
Erdener Özçetin, Gurkan Ozturk

Paper added to session

4 - Solving Vehicle Routing Problems with Equipment Allocation  
Philip Kilby, Fabien Tricoire

We look at a routing problem where some tasks require particular equipment (and may require more than one type of equipment). The equipment allocated to a vehicle is a decision variable, and restricts the vehicles that can perform each task.  

We look at two methods for solving the combined equipment allocation and vehicle routing problem. One method uses a standard vehicle routing solver, modified in a modular way to incorporate the additional functionality. We also describe a method based on column generation.
VMI and Delivery

Chair: Marcel Turkensteen

1 - Shipment consolidation by collaborative planning between industrial suppliers under VMI policy
   Waldemar Kaczmarczyk

2 - An Improved Robust Particle Swarm Optimization Algorithm to the Uncertain Inventory Routing Problem
   Isa Nakhai Kamalabadi, Ali Hossein Mirzaei

3 - A vendor managed inventory model with transportation to geographically dispersed retailers
   Marcel Turkensteen, Christian Larsen
TB-09
Tuesday, 10:30-12h00
RB-Zeta

Cutting and Packing 6

Chair: Andreas Bortfeldt

1 - Optimal cutting of the raw materials
   Jaroslav Hanzel, Ladislav Jurisica, Anton Vitko, Marian Klucik, Peter Paszto

2 - Different criteria to sort the list of pieces in 2D-Orthogonal Strip Packing Problem
   Fernando Garcia Perez, Joaquin Aranda Almansa, Miguel Delgado Pineda

3 - Generation of Two-dimensional Guillotine Cutting Patterns by Genetic Algorithms and Fit-Heuristics
   Lilian Caroline Xavier Candido, Thiago Guimaraes

4 - Algorithms Based on Particle Swarm Optimization for the Two-dimensional Knapsack Problem
   David Alvarez, Ruben Romero
1 - An Inventory Model to Determine The Optimal Mix of Owned and Rented Items  
Leonardo Epstein, Eduardo González-Császár

2 - Analysis of Supply Contracts with Total Minimum Quantity Commitment and Fixed Order Costs  
Frank Y Chen

3 - Heuristics for the (Q,R,S) inventory policy  
Harry Groenevelt
Transportation and Logistics

Chair: Sadegh Niroomand

1 - Developing a sustainable model for city transportation networks
   Narges Shahraki, Metin Turkay, Ali Fattahi

2 - Inventory and Transport Planning of Raw Materials for Steel Enterprises
   Hua-An Lu

3 - Experimenting a Metaheuristics for a Flexible Transport Service
   Pasquale Carotenuto, Daniele Monacelli, Marco Turco

4 - Optimal Supermarket Layout
   Sadegh Niroomand, Bela Vizvari
Robustness in Public Transportation

Chair: Marie Schmidt

1 - Robust Lockmaster’s Problems
Christina Büssing, Elisabeth Günther

2 - Robustness in Periodic and Aperiodic Timetabling
Marc Goerigk, Anita Schöbel

3 - On the improvement of robustness in railway station areas
Thijs Dewilde, Peter Sels, Dirk Cattrysse, Pieter Vansteenwegen

4 - Robust bicriteria paths
Marie Schmidt, Kenneth Kuhn, Andrea Raith, Anita Schöbel
TB-13
Tuesday, 10:30-12h00
RB-Tau

Geometric Clustering

Chair: Andreas Brieden
Chair: Peter Gritzmann

1 - On the Diameter of Partition Polytopes
   Steffen Borgwardt

2 - A New Algorithmic Approach in Mitigating Supply Chain Risk
   Michael Öllinger, Andreas Brieden, Peter Gritzmann

3 - Forecasting risk by means of geometric clustering
   Andreas Brieden, Peter Gritzmann

4 - On optimal weighted balanced clusterings and power diagrams
   Peter Gritzmann, Andreas Brieden
New models in batch scheduling

Chair: Mikhail Y. Kovalyov
Chair: Ammar Oulamara

1 - Scheduling a hybrid flowshop with a serial batch machine: application to chemotherapy production
Ameur Soukhal, Jean-Charles Billaut, Yannick Kergosien, Christophe Lenté, Jean-François Tournamille

2 - Scheduling an unbounded batching machine with job processing time compatibilities
Adam Janiak, Adrien Bellanger, Mikhail Y. Kovalyov, Ammar Oulamara

3 - An optimal algorithm to schedule jobs on two identical parallel machines with an operator
Djamal Rebaine, Mohammed Zouba, Pierre Baptiste
Algorithms for Semi-Infinite Optimization

Chair: Margarita Rodríguez Álvarez

1 - Numerical methods for solving semi-infinite programs with infinitely many conic constraints
   Takayuki Okuno, Shunsuke Hayashi, Masao Fukushima

2 - Zimmermann-cutting plane algorithm for solving non-symmetric fuzzy semi-infinite linear programming problems
   Somayeh Khosravi, Alireza Fakharzadeh

3 - The alpha-BB based cutting plane method for semi-infinite program with multi-dimensional index set
   Shunsuke Hayashi, Kensuke Goumoto

4 - Weighted Voronoi cells via quadratic systems
   Margarita Rodríguez Álvarez, Miguel Goberna, Virginia N. Vera de Serio
Theory and Applications of Constrained Equilibria

Chair: Jacek Krawczyk

1 - Global emission ceiling versus international cap and trade: a comparison based on normalized Nash equilibria  
   Jacqueline Morgan, Fabien Prieur

2 - Robust Nash Equilibrium in a Class of Multi-Leader-Follower Games  
   Masao Fukushima

3 - Regulation of pollution in a Cournot equilibrium  
   Lars Mathiesen

4 - Economics of collective monitoring: a study of environmentally constrained electricity generators  
   Jacek Krawczyk, Javier Contreras, James Zuccollo
Hub Location I

Chair: Ivan Contreras

1 - P-HUB approach for the optimal park-and-ride facility location problem
   Vladimir Marianov, Felipe Aros-Vera

2 - Hub location under uncertainty
   Francisco Saldanha-da-Gama, Sibel A. Alumur, Stefan Nickel

3 - Hub and Spoke Network Design with Single-assignment, Capacity Decisions and Balancing Requirements
   Stefan Nickel, Isabel Correia, Francisco Saldanha-da-Gama

4 - Supermodular Properties in Hub Location
   Ivan Contreras, Elena Fernandez
Location Analysis: Advanced Optimization Tools

Chair: Víctor Blanco

1 - Expanding Search for a Hider on a Network
Steve Alpern, Thomas Lidbetter

2 - Solving the franchisor-franchisee bi-objective optimization problem
Pilar M. Ortigosa, Juana López-Redondo, Jose Fernandez, Aranzazu Gila Arrondo, Carmen G. Escamilla, Victoria Plaza Leiva

3 - Optimal Timings of Project Control Points using Facility Location Model and Simulation
Narjes Sabeghi, Hamed Reza Tareghian, Hassan Taheri, Mohammad Amini

4 - A hierarchy of SDP-relaxations for multifacility ordered median problems
Víctor Blanco, Justo Puerto, Sañæ EL Haj Ben Ali
TB-19

Tuesday, 10:30-12h00

RB-2111

Quantitative Models for Risk Management in Insurance

Chair: Montserrat Guillen
Chair: Ana Maria Perez-Marin

1 - Selecting prospects for cross-selling financial products using multivariate credibility
   Fredrik Thuring, Jens Perch Nielsen, Catalina Bolance

2 - A logistic regression approach to estimating customer profit loss due to lapses in insurance
   Ana Maria Perez-Marin, Montserrat Guillen, Manuela Alcañiz
TB-20
Tuesday, 10:30-12h00
RB-2113

Financial Modeling and Optimization

Chair: Hüseyin Tatlidil

1 - Portfolio optimization with a new quantile-based risk measure
Cristinca Fulga

2 - Probability distribution models for european stock index returns
Chris Katris, Sophia Daskalaki

3 - A Query for Statistical Arbitrage in Fixed Income Markets for Developing Countries
Sait Satiroglu, Emrah Sener, Emrah Ahi

4 - The Performance of Value at Risk and Expected Shortfall Under Subfamilies of Generalized Hyperbolic Distributions: Evidence from ISE-30
Ali Sabri Taylan, Hüseyin Tatlidil
TB-21

Tuesday, 10:30-12h00

RB-2115

Financial Mathematics and OR 6

Chair: Tatiana Zolotova
Chair: Tansel Avkar

1 - The general approach to the modeling of the risk management procedures and its specification for investment problems
   Tatiana Zolotova

2 - Stochastic Hybrid Dynamical Financial Systems and Their Optimization
   Gerhard-Wilhelm Weber, Büşra Temocin, Azar Karimov, Erdem Kilic, Yeliz Yolcu Okur

3 - Parameter Estimation for Stochastic Differential Equations
   Tansel Avkar, Gerhard-Wilhelm Weber

4 - A Surrogate Constraint Approach for a Scenario-based Capital Budgeting Model
   José Paixão, Anabela Costa
Mathematical Models in Macro- and Microeconomics 1

Chair: Marta Kostrzewska

1 - Efficiency-Indices for revealed preference tests: Complexity results and algorithms
   Bart Smeulders, Frits Spieksma

2 - Who’s Number One? Asymmetric Production Costs as a Determinant of Quality Rankings
   Mihkel Tombak, Sergio Meza

3 - Time-varying regression model of gross domestic product
   Damir Atygayev, Vadim Mottl

4 - Games in the network flows
   Marta Kostrzewska, Leslaw Socha
1 - Robust Optimization in Spline Regression Models for Target-Environment Networks
   Ayse Özmen, Erik Kropat, Gerhard-Wilhelm Weber

2 - Optimal parameters region for Pulse Width - Pulse Frequency and Pseudo-Rate modulators
   M. Navabi, Hamed Rangraz

3 - Economically optimal days open and days dry in high milking cows
   Joanna M. Makulska, Andrzej W?glarz, Anna Stygar
Financial Forecasting and Risk Analysis

Chair: Patricia Xufre

1 - Are the tails different from the body?  
Jose Faias

2 - Investment models with a VaR constraint  
Patricia Xufre, Antonio Rodrigues

3 - Recursive quantile estimation vs. quantiles from recursive density estimation  
Jose Luis Carmo, Antonio Rodrigues

4 - How the stochastic problem drives the Brazilian electric sector  
Reinaldo Souza, Pedro Ferreira, Fernando Luiz Cyrino Oliveira
Sustainable Supply Chains

Chair: Mehmet Soysal

1 - Carbon-Optimal and Carbon-Neutral Supply Chains
   Charles Corbett, Felipe Caro, Tarkan Tan, Rob Zuidwijk

2 - An application of Revenue Management in remanufacturing: the case of a third party remanufacturer
   Joao Quariguasi, Andy Reade, Azadeh Dindarian

3 - Robust design of production networks for second generation synthetic bio-fuel
   Grit Walther, Thomas Spengler, Anne Schatka, Laura Hombach

4 - An integrated model for sustainable food logistics management
   Mehmet Soysal, Jacqueline Bloemhof, Jack van der Vorst
Decision Analysis in Practice

Chair: Mara Airoldi

1 - Assessing the value for money of UK public services
   Tom McBride

2 - Disinvestments in practice
   Mara Airoldi

3 - Tackling uncertainties in multi-criteria decision support for sustainable water infrastructure planning
   Lisa Scholten, Judit Lienert

   Paper moved from session WD-13

4 - A Proposal of Diagnosis Procedure for BTO Products
   Yuji Sato
TB-28

Tuesday, 10:30-12h00

CC-A27

Optimization Modeling

Chair: Marcel Sinske

1 - Taxonomy of concepts and terms in administration, OR and management  
   Erwin Reizes

2 - Measuring the Performance of TV Campaigns based on DEA: an Empirical Study  
   Katsuaki Tanaka, Yoshinori Matano

3 - Double and One Sided Moral Hazard in the Three-tier hierarchical Organization of the Venture Capital Finance  
   Ayi Gavirel Ayayi
MINLP and Nonlinear Network Flows in Gas Transport I

Chair: Benjamin Hiller

1 - Checking Feasibility in Stationary Models of Gas Transportation
   Claudia Stangl, Rüdiger Schultz

2 - The Gas Network Nomination Validation Problem - An MIP Approach
   Bjoern Geissler, Alexander Martin, Antonio Morsi, Lars Schewe

3 - Gas Network Topology Optimization
   Jesco Humpola, Thorsten Koch, Thomas Lehmann, Jonas Schweiger

4 - Modeling flow in gas transmission networks using shape-constrained expectile regression
   Fabian Sobotka, Radoslava Mirkov, Werner Römisch, Thomas Kneib
Applications and Decision Support Systems

Chair: Jim Everett

1 - A decision-support tool for designing cost-effective biopharmaceutical manufacturing processes
   Sofia Simaria, Richard Allmendinger, Suzanne Farid

2 - Optimal Supply Chain Planning: Service Levels and Profitability Scores
   Ana Amaro, Ana Paula Barbosa-Póvoa

3 - Joint lot sizing and routing problem of perishable goods
   Márcio Antônio Ferreira Belo Filho, Pedro Amorim, Franklina Toledo, Christian Almeder, Bernardo Almada-Lobo
1 - Extending Learning Vector Quantization for mixed-type data classification
   Chung-Chian Hsu, Jiang-Shan Wang, Hung-Yi Tsai, JongChen Chen

2 - Continuous predictor modality multinomial correlated interpretation
   Andrew Yatsko, Andrew Stranieri, Adil Bagirov, Herbert Jelinek

3 - Assessing Bayesian Network classifiers for software defect prediction
   Karel Dejaeger, Thomas Verbraken, Bart Baesens

4 - A decision support system for ERP implementation in small and medium sized enterprise
   Ying Xie
Developing Methodology in Soft OR

Chair: Amanda Gregory

1 - Evaluating interventions using a lean systems methodology
   Gavin Betts

2 - The use of the CAQDAS (Computer Aided Qualitative Data Analysis Software) to structuring problems in Operations Research
   William Vianna, Eduardo Hoji, Edilson Giffhorn

3 - Exploring the use of Collaboration Engineering approaches within the practice of Soft Systems Methodology
   Aida Azadegan, Giles Hindle

4 - It looks like a PSM and it does what a PSM does but is it a PSM?
   Amanda Gregory, Jonathan Atkins
Logistic and Development

Chair: Youssef Masmoudi
Chair: Habib Chabchoub
Chair: Gerhard-Wilhelm Weber

1 - Time Dependant Intermodal Transportation in the Region of Marmara
   Giray Resat, Metin Turkay

2 - 3D Container Ship Loading Planning Problem with multiple scenarios
   Luiz Salles Neto, Anibal Azevedo, Antônio Moretti, Antônio Chaves

3 - Graph Theoretic Properties and Algorithms with Application in Disaster Response
   Reza Zanjirani Farahani, Hannaneh Rashidi Bajgan

   Paper moved from session WD-12

4 - Knowledge Management of Macro and Micro Seaport Repositories using Data Mining Techniques
   Ana Halabi Echeverry, Deborah Richards, Ayse Bilgin, Jairo Montoya-Torres
Optimization for Sustainable Development 1

Chair: Herman Mawengkang

1 - A Chance-constrained Optimization Model for a Water Distribution Network Problem
Asrin Lubis, Herman Mawengkang

2 - Land use management problems under uncertainty
Siti Rusdiana

3 - How to Determine Optimum Promotions through CLV Maximization?: A Case Study in a Turkish Bank
Fusun Ulengin, Yeliz Ekinci, Nimet Uray

4 - A stochastic optimization model for multi-product fish production planning problem under uncertainty in raw resources and demand
Intan Syahrini, Herman Mawengkang
TB-35
Tuesday, 10:30-12h00
CC-A41

Electric Mobility

Chair: Patrick Jochem

1 - A framework for modelling the electricity demand by plug-in electric vehicles
   Rashid Waraich

2 - Technical and Economical Aspects of Integrating Plug-in Electric Vehicles in Large Scale Power Systems
   Miguel Carrión, Luis Sanchez-rodriguez

3 - Integrating Electric Vehicles into the Germany Electricity Grid — an Interdisciplinary Analysis
   Patrick Jochem, Thomas Kaschub, Alexandra-Gwyn Paetz, Wolf Fichtner
TB-36

Tuesday, 10:30-12h00
CC-A43

DEA and Performance Measurement: Applications 4

Chair: Zilla Sinuany-Stern

1 - Analysing the Research and Teaching Quality Achievement Frontier
   David Mayston

2 - Benchmarking the implementation path to efficiency: The case of small regional airports
   Ekaterina Yazhemsky, Nicole Adler, Tolga Ülkü

3 - Performance assessment of wind farms
   Clara Vaz

4 - Hospitals efficiency in Israel: 1999-2009
   Zilla Sinuany-Stern, Dov Chernichovsky, Lea Friedman
OR in Health & Life Sciences 2

Chair: Leanne Smith
Chair: Paul Harper

1 - A Takt time based resource optimization technique to minimize patient wait time in hospitals
Jyoti R. Munavalli, Frits van Merode, Srinivas A

2 - Optimizing the emergency distribution network in the case of epidemic outbreaks response
Tom Dasaklis, Nikolaos Rachaniotis, Costas Pappis

3 - Modelling ambulance location and deployment in Wales
Leanne Smith, Paul Harper, Vincent Knight, Israel Vieira, Janet Williams

4 - MetSim: a simulation support tool using meteorological information to improve the planning and management of hospital services
Paul Harper, R John Minty
Hybrid Evolutionary Multiobjective Optimization Algorithms

Chair: Karthik Sindhya

1 - A Preference-based Evolutionary Algorithm for Multiobjective Optimization: The Weighting Achievement Scalarizing Function Genetic Algorithm
Ana Belen Ruiz, Rubén Saborido Infantes, Mariano Luque

2 - Preference-based Evolutionary Algorithm for Multiobjective Bilevel Optimization
Pekka Malo

3 - A Hybrid Evolutionary Multi-objective Optimization Algorithm for Enhanced Convergence and Diversity
Karthik Sindhya, Kaisa Miettinen, Kalyanmoy Deb
TB-39
Tuesday, 10:30-12h00
HH-Cousteau

MCDA: New Approaches and Applications 1

Chair: Gerhard-Wilhelm Weber
Chair: Yves De Smet

1. Monotonicity and minimax biproportional apportionments
   Paolo Serafini

2. Multi attribute regional market location problem based on the clustering approach
   Mahdi Bashiri, Mohsen Yahyayi

3. A Careful Look at Criterion Importance and Weights
   Pekka Korhonen, Jyrki Wallenius, Anssi Oorni

4. Rank reversal in the PROMETHEE I and II rankings: a summary of recent investigations
   Yves De Smet, Céline Verly, Julien Roland
Preference Learning 1

Chair: Willem Waegeman
Chair: Krzysztof Dembczynski

1 - Active learning for preference learning
   Nir Ailon

2 - Optimal recommendation sets
   Paolo Viappiani

3 - Large-scale training of linear ranking support vector machines
   Antti Airola

Paper added to session

4 - Preference Modelling and Market Price Forecasting with Causal-Retro-Causal Neural Networks
   Hans Georg Zimmermann, Ralph Grothmann, Christoph Tietz

Forecasting of market prices is a basis of rational decision making. Recurrent neural networks offer a framework for modelling temporal developments. Causality explains the present state of a system by features, which are prior to the current state. Looking for alternatives, we remember that markets are human made dynamical systems. In microeconomics we describe human behaviour with utility functions. If we know the human reward function, we could describe the behaviour of the market participants and thus the market by retro causal equations. This approach improves the forecasting accuracy.
1 - Super Pairwise Comparison Matrix in MDAHP
   Takao Ohya, Eizo Kinoshita

2 - Research on the comparison of electronic monetary value in the information society
   Shunem Norikumo

3 - An Application of Energy Alternative Selection: A Fuzzy AHP-ELECTRE Methodology
   Abit Balin, Özge Nalan Alp Bilişik, Hayri Baraçılı

4 - Dominant AHP as Measuring Method of Service Value
   Eizo Kinoshita
TB-42

Tuesday, 10:30-12h00
BW-Amber

Networks under Uncertainty

Chair: Sandra Rauscher
Chair: Erik Kropat
Chair: Selis Onel

1 - Research of the methods of stochastic approximation and genetic algorithms for the transport system microscopic simulation models calibration
   Elena Yurshevich

2 - Simulation Metamodeling using Bayesian Networks
   Kai Virtanen

3 - On the Peter Principle: An Agent Based Investigation into the Consequential Effects of Social Networks and Behavioural Factors
   Angelico Fetta, Paul Harper, Vincent Knight, Israel Vieira, Janet Williams

4 - Hybrid lateral transshipments in multi-item inventory networks
   Sandra Rauscher, Kevin Glazebrook, Colin Paterson, Thomas Archibald
Recent Applications of Probabilistic Programming

Chair: Milos Kopa

1 - Robustness in stochastic programs with the first order stochastic dominance and/or probabilistic constraints
   Milos Kopa, Jitka Dupacova

2 - Chance constrained problems: reformulation using penalty functions and sample approximation technique
   Martin Branda

3 - Robust Pricing of Monopolistic Cloud Computing Services with Service Level Agreements
   Vladimir Roitch, Daniel Kuhn, Yike Guo

4 - Tractable Dynamic Model of Price and Volume Given Uninformed Market Maker
   Martin Smid
TB-44
Tuesday, 10:30-12h00
BW-Marble

Computer Vision (2) and Machine Learning

Chair: Teofilo deCampos
Chair: Fei Yan
Chair: Ivan Reyer

1 - Efficient Large Scale Scene Understanding
   Ramin Zabih, Philip Torr

2 - Skeleton Base and Scalable Boundary-Skeletal Shape Model
   Ivan Reyer, Ksenia Zhukova

3 - Structured Output Learning for Automatic Analysis of Court Games
   Fei Yan, Josef Kittler
TB-45

Tuesday, 10:30-12h00

BW-Water

Logistics and stochastics 1

Chair: Birger Raa
Chair: Wout Dullaert

1 - The effect of capacitated replenishments on periodic review inventory systems
   Wout Dullaert, Birger Raa

2 - A stochastic model for controlling the deterioration of a two machines production system: Extensions to remanufacturing
   Pierre Dejax, Annie Francie Kouedeu, Jean-Pierre Kenne, Victor Songmene

3 - A stochastic formulation of the disassembly line balancing problem
   Mohand Lounes Bentaha, Olga Battaïa, Alexandre Dolgui, Frédéric Grimaud

4 - Quantification of value of flexibility in a hybrid MTO and MTS system
   Beyazıt Ocaktan, Ufuk Kula
TC-01
Tuesday, 12:30-14:00
RB-Alfa

Keynote Lecture: Professor Bjorn Jorgensen

Chair: Peter Letmathe

1 - Accounting
   Bjorn Jorgensen
TC-02

Tuesday, 12:30-14:00
RB-Beta

Scheduling in Robotics and Manufacturing

Chair: Seda Hezer

1 - The Job Shop with Blocking and a Rail-Bound Transfer System
   Reinhard Bürgy, Heinz Gröflin

2 - A special case of the minimization of tool switches problem
   Horacio Yanasse

3 - Two sided disassembly line balancing problem
   Seda Hezer, Yakup Kara

4 - Scheduling activities in a research centre to minimize the total energy consumption
   Maciej Lichtenstein, Adam Janiak, Tomasz Krysiak, Mateusz Gorczyca
TC-03
Tuesday, 12:30-14:00
RB-L1

Sustainable Network Design and Railway/Sea Transport

Chair: Joachim R. Daduna

1 - Road-Rail-Sea hub location-allocation with sustainability considerations
   Ali Fattahi, Metin Turkay

2 - Green supplier network design based on customer segmentation
   Leyla Ozgur, Semih Coskun, Askiner Gungor, Olcay Polat

3 - Designing efficient transportation processes for sustainable city logistics
   Joachim R. Daduna
Optimization problems on graphs and networks

Chair: Ivana Ljubic

1 - Minimum Spanning Trees with Generalized Degree Constraints
   Pedro Moura, Luis Gouveia, Amaro de Sousa

2 - Layered Graph Approaches for the Hop Constrained Steiner Tree Problem with multiple Root Nodes
   Markus Leitner, Luis Gouveia, Ivana Ljubic

3 - On a time-dependent formulation for the travelling salesman problem
   Luis Gouveia, Maria Teresa Godinho, Pierre Pesneau

4 - The Recoverable Robust Two-Level Network Design Problem
   Eduardo Álvarez-Miranda, Ivana Ljubic, S. Raghavan, Paolo Toth
 Problems on graphs II

Chair: Victor Lepin

1 - Extremal graphs for the randic index when minimum, maximum degree and order of graphs are odd
   Ljiljana Pavlovic, Tomica Divnic

2 - Disjoint Path Problem in Mixed Acyclic Graphs
   Cong Zhang, Hiroshi Nagamochi

3 - Full cycle extendability of K(1,4)-restricted locally connected graphs
   Pavel Irzhavski, Yury Orlovich

4 - Biclique partition for graphs with special blocks
   Victor Lepin, Oleg Duginov
TC-06

Tuesday, 12:30-14:00

RB-Gamma

Rich vehicle routing problems

Chair: Jose Brandao

1 - The Pickup and Delivery Problem with Cross-Docking Opportunities
   Hanne Petersen, Stefan Ropke

2 - Metaheuristics for the vehicle routing problem with backhauls and soft time windows
   Jose Brandao

3 - A Multi-Objective Algorithm for Open Vehicle Routing Problems. A Real Case Study for a Spanish Company with time constraints
   Ana Dolores López Sánchez, Alfredo G. Hernandez-Diaz, Julian Molina, Rafael Caballero, Macarena Tejada

4 - Tabu Search and Genetic Algorithms for the solution of the Capacitated Vehicle Routing Problem with Time Windows
   Arthur Gomez, Cristiano Galafassi, Leonardo Chiwiacowsky
TC-07
Tuesday, 12:30-14:00
RB-Eta

Warehouse Operations Optimization

Chair: Hasan Akyer

1 - Development of a systematic method to evaluate packaging areas
    Judith Weiblen, Dominik Berbig, Kai Furmans

2 - Optimal number of vehicles and paths of movement in GridFlow systems with AGVs
    Melanie Schwab

3 - Optimization of the order-picking processes in the warehouse
    Michal Jakubiak

4 - A novel heuristic approach for the joint order batching and picker routing problems in warehouses
    Hasan Akyer, Osman Kulak, Mustafa Egemen Taner
1 - Mathematical programming models for master planning in ceramic tile supply chains. Evaluation and comparison of distributed and centralised scenarios.
   David Pérez Perales, Mareva Alemany

2 - A Mixed Integer Programming Model for Shelf Life Integrated Planning, Scheduling and Distribution in Yoghurt Production
   Çâ?r? Sel, Bilge Bilgen

3 - A production-inventory problem in pharmaceutical supply chain — mixed integer approach
   Pawel Hanczar

4 - Use of Lagrangian decomposition in coordination of refinery production and sales planning
   Jiehong Kong, Mikael Rönqvist
■ TC-09

Tuesday, 12:30-14:00
RB-Zeta

Colourings, Independence and Assignment

Chair: Reinhardt Euler

1 - Lessons for finding Mutually Orthogonal Latin Squares (MOLS) for $n=10$ from new and old proofs for infeasibility of $n=6$
   Gautam Appa, Reinhardt Euler, Anastasia Kouvela, Dimitris Magos, Yiannis Mourtos

2 - On the recognition of 2-row orthogonal Latin rectangle circuits
   Anastasia Kouvela, Gautam Appa, Reinhardt Euler, Dimitris Magos, Yiannis Mourtos

3 - Polyhedral aspects of cardinality constraints
   Yiannis Mourtos

4 - Approximating the multi-level bottleneck assignment problem
   Frits Spieksma, Trivikram Dokka, Anastasia Kouvela
TC-10

Tuesday, 12:30-14:00

RB-Theta

Pricing and Applications

Chair: M. Güray Güler

1 - A pricing problem in a two-ends model under uncertainty
   Alberto A. Álvarez-López, Inmaculada Rodríguez-Puerta

2 - Integrated Pricing and Scheduling for Order Outsourcing in a Supply Network
   Woldemar Wedel, Yike Hu, Oliver Wendt

3 - On Coordination under Random Yield and Random Demand
   M. Güray Güler, Taner Bilgic

4 - Layout Planning and Shelf Space Allocation in Retail Store: A Case Study for Chain Markets in Turkey
   Yelda Cansu Adali, Rifat Gürcan Özdemir, Kayhan Karaman
TC-11
Tuesday, 12:30-14:00
RB-Iota

Exact Methods for Arc Routing Problems

Chair: Claudia Bode

1 - Mixed Capacitated General Routing Problem: Exact and Heuristic Methods
Francesca Vocaturo, Adamo Bosco, Demetrio Laganà, Roberto Musmanno

2 - Modeling the Rural Postman Problem with Time Windows
Ingrid Marcela Monroy Licht, Ciro Alberto Amaya, André Langevin

3 - Analysis of Pricing Problem Relaxations for the Capacitated Arc Routing Problem
Claudia Bode, Stefan Irnich
TC-12
Tuesday, 12:30-14:00
RB-Omicron

Capacity and Infrastructure

Chair: Rob Goverde

1 - OR in shunt planning
   Joel van ’t Wout

2 - A model for balancing price, capacity and crowdedness in public transport
   Paul Bouman

3 - Improving railway infrastructure utilization through pricing mechanisms - Modelling train flows
   Michal Kaut, Adrian Werner, Arnt-Gunnar Lium, Truls Flatberg, Teodor Gabriel Crainic, Teodor Gabriel Crainic

4 - Computing capacity consumption of railway lines and networks
   Rob Goverde
Assembly systems and automotive production

Chair: Rüdiger Berndt

1 - Job rotation in assembly lines with disabled workers
   Alysson M. Costa, Mayron César Oliveira Moreira

2 - Improving ergonomics by OR methods applied in the planning process: The example of the automobile industry
   Alena Otto

3 - Precompiled Configuration Spaces for the Verification of Consistency in Production Planning Processes
   Rüdiger Berndt, Peter Bazan, Kai-Steffen Hielscher

Paper added to session

4 - Queue Optimization in Deterministic Linear Manufacturing Systems
   Zuzana N?mcová, Martin Gavalec
   The contribution describes cost optimization in deterministic linear queuing systems. A manufacturing system is linear if it consists of a series of servers. Knowledge of the development of the queue lengths during the run of the system is useful for controlling the total costs. The method of finding the optimal setup of service capacities of the servers in each time period in which the service times stay unchanged is suggested. It helps the manager of the system in deciding when and how the service times of the servers should be changed. This results in significant cost savings.
TC-14
Tuesday, 12:30-14:00
RB-Omega

Nurses Scheduling

Chair: Geetha Baskaran

1 - Agent-based Cooperative Meta-heuristic search for Fairness in Nurse Rostering
   Simon Martin, Pieter Smet, Djamila Ouelhadj, Ender Özcan, Greet Vanden Berghe

2 - Multi-level Decision Support in Rostering and Staffing
   Patrick De Causmaecker, Stefaan Haspeslagh

3 - The Nurse Scheduling Problem: Modelling the Nurses’ Preferences in a Hospital in Turkey
   Alejandra Duenas, G.yazgi Tütüncü

4 - From Simplified to Detailed Solutions To The Nurse Rostering Problem
   Geetha Baskaran, Andrzej Bargiela, Rong Qu
TC-15

Tuesday, 12:30-14:00

RB-2101

Vector and Set-Valued Optimization I

Chair: Vicente Novo
Chair: Beatriz Hernández-Jiménez

1 - Variational-like inequality problems and vectorial optimization problems in Banach spaces
   Gabriel Ruiz-Garzón, Lucelina Batista dos Santos, Antonio Rufián-Lizana, Rafaela Osuna-Gómez

2 - Efficiency in multiobjective variational problem under generalized convexity
   Manuel Arana-Jiménez, Antonio Rufián-Lizana, Rafaela Osuna-Gómez, Gracia M. Nieto-Gallardo

3 - The exact l1 penalty function method for vector optimization problems
   Tadeusz Antczak

4 - Characterization of weakly efficient solutions for non-regular vector optimization problems with conic constraints
   Beatriz Hernández-Jiménez, Rafaela Osuna-Gómez, Marko A. Rojas-Medar
Perturbation and sensitivity in Markov control problems and games

Chair: Konstantin Avrachenkov
Chair: Yi Zhang

1 - Markov decision processes with unknown transition matrices
   Masayuki Horiguchi

2 - Detecting non-Hamiltonicity in cubic graphs using linear feasibility problems
   Jerzy Filar, Michael Haythorpe, Serguei Rossomakhine

3 - Transformation method for discounted continuous-time Markov decision processes with unbounded rates
   Yi Zhang, Alexei Piunovskiy

4 - The expected total cost criterion for Markov decision processes under constraints: a convex analytic approach
   Francois Dufour, Masayuki Horiguchi, Alexei Piunovskiy
TC-17
Tuesday, 12:30-14:00
RB-2105

Hub Location II

Chair: Barbaros Tansel

1 - A new approach to economies of scales in hub location problems
   Martin Baumung

2 - The ring star hub location problem: A Benders decomposition approach
   Ricardo Camargo, Gilberto Miranda, Henrique Luna, Elisangela Martins de Sá

3 - The p-Hub Median Problem on Incomplete Transportation Networks
   Barbaros Tansel, ?brahim Akgün
Competitive Location.

Chair: Blas Pelegrin

1 - Solving a Huff-type location model on networks
   Rafael Blanquero, Emilio Carrizosa, Amaya Nogales, Frank Plastria

2 - Location models and GIS tools for franchise distribution
   Rafael Suarez-Vega, Dolores R. Santos-Peñate, Pablo Dorta-González

3 - On a biobjective location model for firm expansion with binary customer behaviour
   Algirdas兰?inskas, Julius Zilinskas, Blas Pelegrin, Pascual Fernandez
TC-19
Tuesday, 12:30-14:00
RB-2111

Risk Modeling and Risk Measures

Chair: David Wozabal

1 - Modeling the ATM Cash Delivery Problem as a Vehicle Dispatch Problem and Solving It via a New Hybrid Heuristic Algorithm
   Kübra Fenerci, Ilhan Or, Ekrem Duman

2 - "Jumping Assets", "Timing Effect" and "Systemic Risk" in Portfolio Selection Problems
   Sergio Ortobelli, Enrico Angelelli

3 - Robustifying Convex Risk Measures: A Non-Parametric Approach
   David Wozabal

   Paper added to session

4 - A hybrid model for optimal asset allocation in defined contribution pension plans
   Agnieszka Karolina Konicz

   We consider optimal asset allocation of a pension saver with uncertain lifetime. The objective is to maximize the expected utility of the retirement savings. The model accounts for characteristics of a pension saver given by her mortality risk, risk attitude, type of retirement contract, trading costs, taxes, current wealth and uncertain labor income. The problem is solved using a combination of a multi-stage stochastic linear programming (SLP) model and stochastic optimal control, such that the practical application is emphasized. Both solutions are integrated into the SLP formulation.
Risk Assessment in the Financial Sector

Chair: Tara Keshar Nanda Baidya

1 - A Study on Quantitative Evaluation of the Model for the Piano Fingering  
   Keisuke Hotta

2 - On distributional robust probability functions and their computations  
   Man Hong Wong, Shuzhong Zhang

3 - Recent Features of UK Income Protection Claim Durations  
   Isabel Cordeiro

4 - Valuation of employee Stock Option with stochastic exercise price for a  
   Brazilian Firm  
   Tara Keshar Nanda Baidya, Fernando Visser
TC-21
Tuesday, 12:30-14:00
RB-2115

Asset Pricing

Chair: Andreas Loeffler

1. **Optimal Stopping for Portfolio Management**
   Alexandra Spachis, Eleni Hadjiconstantinou, Nicos Christofides

2. **Misperceptions of Long-Term Investment Performance: Insights From An Experiment**
   Michael Stutzer, Susan Jung Grant

3. **A Note On Estimating CAPM-Betas**
   Andreas Loeffler, Thomas Burkhardt
TC-22
Tuesday, 12:30-14:00
RB-2117

Mathematical Models in Macro- and Microeconomics 2

Chair: Ludmilla Koshlai
Chair: Gerhard-Wilhelm Weber
Chair: Jean-Francois Emmenegger

1 - An empirical assessment of customer lifetime value models
   Abdulkadir Hiziroglu, Serkan Sengul

2 - On one nonlinear optimization problem for Leontief models
   Petro Stetsyuk

3 - Upper bounds for optimization problem of intersectoral planning of structural and technological changes
   Tamara Bardadym, Oleg Berezovskyi

   Paper moved from session WC-42

4 - Optimal Control Formulation of Query Model for Authentication Systems
   Devin Sezer, Ferruh Ozbudak, Yildirim Ustun
TC-23

Tuesday, 12:30-14:00
RB-Delta

Complementarity Problems, Variational Inequalities and Equilibrium

Chair: Sandor Zoltan Nemeth
Chair: Song Wang

1 - The Influence of Technical, Market and Legislative Factors on E-Waste Flows
   Thomas Nowak, Fuminori Toyasaki, Tina Wakolbinger, Anna Nagurney

2 - Power penalty methods for nonlinear complementarity problems
   Song Wang

3 - Necessary conditions for variational relation problems
   Anulekha Dhara
Judgmental Forecasting

Chair: Zoe Theocharis

1 - Why do people damp trends when using their judgment to make forecasts from time series?
   Nigel Harvey, Stian Reimers

2 - Judgmental interval forecasts: The effects of assessment order and trend direction
   Mustafa Sinan Gonul, Mary Thomson, Dilek Önkal-Atay

3 - An exploration of judgmental forecasting biases using dynamic task environments
   Zoe Theocharis, Nigel Harvey

4 - Change detection training improves time series forecasting
   Matt Twyman, Nigel Harvey
Measurement of Sustainability

Chair: Jutta Geldermann

1 - Developing the data envelopment analysis model with incorporating the carbon footprint to measure the business operational efficiency
   Li-Ting Yeh, Dong Shang Chang, Wenrong Liu

2 - Strategic and operational implications of climate change for supply chain management
   Costas Pappis, Cristobal Miralles, Tom Dasakis, Nikos Karacapilidis

3 - Resource efficiency in supply chains: a review of network design and operational planning
   Gábor Herczeg

4 - The varied contexts of environmental multicriteria decision support processes
   Jutta Geldermann, Meike Schmehl, Katharina Amann
OR in Forestry II

Chair: Patrick Hirsch

1 - On the optimal land allocation
   Jussi Uusivuori

2 - Scheduling sawmill operations using robust optimization
   Sergio Maturana, Mauricio Varas, Jorge Vera

3 - Vehicle routing for transporting forest fuel and combined mobile chipper scheduling
   Jan Zazgornik, Manfred Gronalt

4 - Environmental impacts versus driving times - The routing of log-trucks with a new near-exact solution approach
   Marco Oberscheider, Jan Zazgornik, Manfred Gronalt, Patrick Hirsch
TC-27
Tuesday, 12:30-14:00
CC-A25

Policy Analytics

Chair: Alexis Tsoukiàs
Chair: Vivien Kana Zeumo

1 - Policy analytics: what it is and how to distinguish it
Valerie Belton, Alexis Tsoukiàs

2 - An ANP-based approach for addressing sustainability in urban transformation projects
Valentina Ferretti, Marta Bottero, Andrea Di Maggio, Silvia Pomarico, Marco Valle

3 - Poverty measurement: a decision aiding perspective
Vivien Kana Zeumo, Alexis Tsoukiàs

4 - InViTo: an integrate approach for supporting the evaluation of transport scenarios
Isabella Lami, Francesca Abastante, Stefano Pensa, Marta Bottero, Elena Masala
TC-28

Tuesday, 12:30-14:00

CC-A27

Boundaries and Interfaces

Chair: Susie Vrobel

1 - Cold-blooded loneliness: Social exclusion leads to lower skin temperatures
   Hans IJzerman

2 - Are Free Association Clusters Ad-Hoc Humanoid Agents?
   Antal Borbely

3 - Toward a 'rationality' tuned with human life
   Marina Alfano, Rosolino Buccheri

4 - Dimensions of trust involved in human actions against climate change
   Annette Hohenberger
TC-29
Tuesday, 12:30-14:00
CC-A29

MINLP and Nonlinear Network Flows in Gas Transport II

Chair: Jesco Humpola

1 - An automated method for the booking validation problem
   Benjamin Hiller

2 - Heuristic Long-term Planning of Natural Gas Transportation Networks
   Daniel Heuberger, Albert Moser

3 - Design of Hydrogen Transmission Pipe Networks for France
   Daniel De Wolf

4 - Stochastic nonconvex MINLP models and global optimization for natural gas production network design under uncertainty
   Xiang Li, Asgeir Tomasgard, Paul I. Barton
Data confidentiality 1

Chair: Robert Garfinkel

1 - Solving L1-CTA in 3D tables by an interior-point method for block-angular problems
   Jordi Cuesta, Jordi Castro

2 - Optimal Data-Independent Noise for Differential Privacy
   Josep Domingo-Ferrer, Jordi Soria-Comas

3 - Solving L2-CTA by perspective reformulations
   Jordi Castro, Claudio Gentile, Antonio Frangioni

4 - On Generating a Secure, Representative Sample from a Database
   Robert Garfinkel
Applications of the Neural Networks

Chair: Yoshifumi Kusunoki
Chair: Anastasia Motrenko

1 - Supplier's performance measurement using intelligent clustering
   Meltem Gulserin, Mine Isik, Gulgun Kayakutlu

2 - Modelling the behaviour of masonry walls under out of plan loading by ANN
   M. Sami Donduren

3 - Estimating the behaviors of reinforced concrete columns under axial load effect by ANN
   M.Tolga Cogurcu

4 - Modelling the flexural behaviour of beams by ANN
   Mehmet Kamanli
Risk and Uncertainty in Energy Models

Chair: Dominik Möst

1 - An Electricity Market Model with Generation Capacity Investment under Uncertainty
   Andreas Schröder

2 - Wind power in Europe: Modeling of wind feed-in time series with an hourly resolution
   Alexander von Selasinsky, Michael Zipf

3 - Power Transmission Grid Expansion using Benders Decomposition
   David Gunkel, Friedrich Kunz

4 - Valuation of Pumped Hydro Storages with respect to the Electricity Spot and Reserve Power Markets
   Oliver Woll, Bastian Felix, Christoph Weber
Understanding, Modeling and Implementation of OR for Sustainable Development

Chair: Alexander Makarenko

1 - A two-stage approach for distribution network design problem in cosmetic & cleaning industry
   Rifat Gürcan Özdemir, Zeki Aya?, Ufuk Kula

2 - Foreign Direct Investment Trends and Comparative Analysis for Chosen Transition Countries
   Snjezana Pivac

3 - Panel data analysis of institutional variables in attracting foreign direct investment in countries of central and south-eastern Europe
   Elza Jurun, Mario Pecarić, Tino Kusanovic

4 - General Sustainable Development Problems and OR
   Alexander Makarenko
TC-34
Tuesday, 12:30-14:00
CC-A39

Optimization for Sustainable Development 2

Chair: Herman Mawengkang
Chair: Gerhard-Wilhelm Weber

1 - Multi objective stochastic programming model for waste management in crude palm oil industry
Meslin Silalahi, Hendaru Sadyadharma, Herman Mawengkang

2 - Optimization approach for measuring the ecological suitability of product packaging
Zoran Rakicevic, Jovana Kojic

3 - Modeling the spread of infectious disease based on dynamic social network
Firmansyah Firmansyah, Herman Mawengkang

4 - Decomposition-based optimization of a large-scale mesh-structured drinking water supply network
Derek Verleye, El-Houssaine Aghezzaf
Innovation in Logistics

Chair: Belarmino Adenso-Diaz
Chair: Ben Lev

1 - Company-wide Production Planning Using a Multiple Technology DEA approach
   Sebastián Lozano

2 - Bicriteria model for designing a container depots logistic network
   Belarmino Adenso-Diaz, Antonio Palacio, Salvador Furió, Sebastián Lozano

3 - A mathematical model to design an inland network of intermodal terminals
   Carlos Andres, Salvador Furió, Julien Maheut
TC-36
Tuesday, 12:30-14:00
CC-A43

QMPD Session 1

Chair: Markus Siegle

1. Memory-efficient bounding algorithm for the two-terminal reliability problem
   Minh Lê

2. An enhanced two-phase MAP fitting method
   András Mészáros, Miklós Telek

3. Time-parallel simulation for stochastic automata networks
   Jean-Michel Fourneau, Franck Quessette, Thu Ha Dao Thi

4. M/G/c/c state dependent travel time models and properties
   J. MacGregor Smith, F. R. B. Cruz
TC-37

Tuesday, 12:30-14:00
CC-Act

OR in Health & Life Sciences 3

Chair: Yw Chen

1 - Planning in a regional blood distribution network
   Jose luis Andrade, Pedro L. Gonzalez-R

2 - A cloud service to allocate emergent patients by affinity set
   Yuh-Wen Chen

3 - A business model for synchronized and patient-centered Tele-health service
   Jiun-Yu Yu, Kwei-Long Huang
TC-38
Tuesday, 12:30-14:00
HH-Colombus

Theory of Set-valued Optimization and Applications

Chair: Tamaki Tanaka
Chair: Gue Myung Lee

1 - On Nonsmooth Optimality Theorems for Robust Multiobjective Optimization Problems
   Gue Myung Lee

2 - On DC set optimization problems
   Daishi Kuroiwa

3 - Unified scalarization for sets and Ekeland’s variational principle for set-valued maps
   Tamaki Tanaka
TC-39
Tuesday, 12:30-14:00
HH-Cousteau

Latest advances on MCDA software

Chair: Bertrand Mareschal

1 - On Multi-Criteria Clustering
   Alexandru-Liviu Olteanu, Patrick Meyer, Raymond Bisdorff

2 - A new web service for the stable sorting of a set of alternatives
   Thomas Veneziano, Patrick Meyer, Raymond Bisdorff

3 - Visual PROMETHEE - A New Multicriteria Decision Aid Software
   Bertrand Mareschal
TC-40
Tuesday, 12:30-14:00
HH-Livingstone

Preference Learning 2

Chair: Krzysztof Dembczynski

1 - Efficient algorithms for robust ordinal regression
   Tommi Tervonen, Remy Spliet

2 - Multicriteria sorting functions using valued assignment examples
   Olivier Cailloux, Brice Mayag, Vincent Mousseau, Luis C. Dias

3 - On the estimation of the parameters of Electre Tri model in multi criteria
    ordinal sorting problem: a proposal of new approach in two phases
   Valentina Minnetti

4 - A ranking approach based on outranking relations using mathematical pro-
    gramming
   Selin Ozpeynirci, Ozgur Ozpeynirci, Yigit Kazancoglu
TC-41
Tuesday, 12:30-14:00
HH-Heyerdahl

AHP/ANP 6

Chair: Pekka Korhonen

1 - R&D Personnel Selection with Fuzzy Analytic Hierarchy
   Erhan Berk

2 - Determining effective criteria of Customers’ satisfaction in kitchen worktops by using AHP
   Majid Azizi, Vahid Nabavi, Mehdi Faezipour

   Paper added to session

3 - Using AHP and TOPSIS under fuzzy environment for having best quality poison in agriculture - A case study for the pear trees in Iran
   Reza Eslamipoor
   Multi Criteria Decision Making is extending in each of knowledge areas. Although considering different criteria for solving a problem makes it difficult, but better solutions will be generated. Pests attack most of the gardens each year and they lead to lots of losses. So, poison selection for killing these pests is so important. For the first time, a new approach by synthesizing AHP and fuzzy TOPSIS methods was investigated in this study. This method was applied in attacked pear trees. Results show the effectiveness of this method in comparison with traditional decision making procedure.

4 - Analysing numerically three different methods to estimate a priority vector from inconsistent pairwise comparison matrices in AHP
   Attila Poesz, Pekka Korhonen
TC-42
Tuesday, 12:30-14:00
BW-Amber

Queueing Systems I

Chair: Erik Kropat
Chair: Büsra Temocin
Chair: Devin Sezer

1 - The Availability and Separability of Unreliable Networks
   Yat-wah Wan

2 - Inequality of Stability in the M2/M2/1 Queue with Preemptive Priority
   Hamadouche Naima

3 - Transient queues with correlated arrivals. Algorithmic approach
   Claus Gwiggner, Sakae Nagaoka

4 - Optimal control by unreliable queueing systems with broadcasting service
   Alexander Dudin, Bin Sun
**TC-43**

*Tuesday, 12:30-14:00*

*BW-Granite*

**Stochastic programming in industry II**

Chair: Achim Koberstein  
Chair: Csaba I. Fabian

1 - **On integrating financial hedging decisions into a model for global production network design**  
*Achim Koberstein, Elmar Lukas, Marc Naumann*

2 - **A Stochastic Second Order Cone Model for a Stochastic Capacitated Traveling Salesmen Location Problem with Recourse**  
*Francesca Maggioni*

3 - **Optimal timing and capacity choice for pumped hydropower storage**  
*Ane Marte Heggedal, Emily Fertig, Gerard Doorman, Jay Apt*

4 - **Mathematical Optimization of an Industrial-Scale Engineering System**  
*Selis Onel*
Ensemble Learning and Artificial Neural Networks

Chair: Sureyya Ozogur-Akyuz
Chair: Terry Windeatt

1 - New Considerations on Bias-variance Decomposition in Ensemble Classifier Fusion
   David Windridge

2 - Ensemble Pruning via DC Programming
   Sureyya Ozogur-Akyuz, Terry Windeatt, Raymond Smith

3 - Short-term forecasting of light rail passenger demand by artificial neural networks
   Gökhan Sürmeli, Dilay Çelebi, Demet Bayraktar

4 - Optimizing the Backpropagation Algorithm for Training Artificial Neural Networks
   Geraldo Miguez, Nelson Maculan, Adilson Elias Xavier
TC-45
Tuesday, 12:30-14:00
BW-Water

Logistics and stochastics 2

Chair: Dieter Fiems
Chair: Eline De Cuypere

1 - Estimating Repair Effects in Failing Systems
   Ernie Love

2 - Confidence-based Optimization for the Newsvendor Problem
   Roberto Rossi, Steven Prestwich, Armagan Tarim, Brahim Hnich

3 - Economic order quantity of an inventory control system with order backlog
   Eline De Cuypere, Koen De Turck, Dieter Fiems

4 - Two Modified Preventive Maintenance Models in a Finite Time Span with Failure Rate Reduction
   Chun-Yuan Cheng, Min Wang, Mei-Ling Liu
Tutorial Lecture: Professor Jitka Dupacova

Chair: Stein W. Wallace

1. Stochastic programming - a flexible tool for decision making under uncertainty
   Jitka Dupacova
TD-02
Tuesday, 14:30-16:00
RB-Beta

Scheduling in Transport

Chair: Jose M. Framinan

1 - The problem of minimization maximum weighted lateness of orders for two railway stations/
   Dmitry Arkhipov, Alexander Lazarev

2 - Public transport system route reliability estimation using macromodelling
   Irina Pticina, Irina Yatskiv

3 - Scheduling interfering jobs in a permutation flowshop
   Paz Perez Gonzalez, Jose M. Framinan

4 - A Variable Neighbourhood Search (VNS) algorithm for solving Read Mix Concrete Production and Delivery Scheduling Problem (RMCPDSP)
   Anna M. Coves, M. Antonia de los Santos
Sustainable Road Transport and Vehicle Routing

Chair: U.Mahir Yildirim

1 - Minimum cost VRP with time-varying speed data and congestion charge
Richard Eglese, Liang Wen

2 - Analysis of optimal vehicle speed: from supersonic wave devices to GPS transceivers
Hiroyuki Kawano

3 - A bi-objective Pollution-Routing Problem: trade-offs between fuel consumption and driving time
Emrah Demir, Tolga Bektas, Gilbert Laporte

4 - Greenest paths in time-dependent transportation networks
U.Mahir Yildirim, Bülent Çatay
Routing problems

Chair: Eleni Hadjiconstantinou
Chair: Vladimir Ejov

1 - An Adaptive Memetic Algorithm using Large Neighbourhood Search for the Multi-Depot Pickup and Delivery Problem
Pairoj Chaichiratikul, Eleni Hadjiconstantinou

2 - The capacitated minimum spanning tree problem with time windows
Manolis Kritikos, George Ioannou

3 - "Snakes and Ladders” heuristic algorithm (SLH) for the Hamiltonian cycles problem.
Vladimir Ejov, Serguei Rossomakhine

Paper moved to session MD-03
The Target Visitation Problem
Achim Hildenbrandt, Gerhard Reinelt
Problems on graphs III

Chair: Peter Recht

1 - A Coloring Algorithm for Triangle-Free Graphs
   Mohammad Jamall

2 - An Efficient Algorithm for Stopping on a Sink in a Directed Acyclic Graph
   Grzegorz Kubicki, Wayne Goddard, Ewa Kubicka

3 - On the Cubic Dimension of certain Classes of Balanced Binary Trees into Hypercube
   Kamal Kabyl, Abdelhafid Berrachedi

4 - A "min-max-theorem" for the cycle packing problem in Euler graphs
   Peter Recht, Eva-Maria Sprengel
TD-06
Tuesday, 14:30-16:00
RB-Gamma

Relaxation Adaptive Memory Programming

Chair: Dorabela Gamboa

1 - A RAMP Algorithm for Generalized Assignments
   Cesar Rego, Lutfu Sagbansua

2 - RAMP for the Capacitated Facility Location Problem
   Telmo Matos, Dorabela Gamboa, Cesar Rego

3 - A PD-RAMP Algorithm for the UFLP
   Dorabela Gamboa, Telmo Matos, Fábio Maia, Cesar Rego

4 - A Parallel RAMP Algorithm for the Set Covering Problem
   Tabitha James, Cesar Rego, José Humberto Ablanedo Rosas
Manufacturing Issues

Chair: Ignacio Eguia

1 - Transportation scheduling in assembly lines under storage constraints: A case study of the automobile industry
   Masood Fathi, María Jesús Alvarez, Victoria Rodríguez

2 - Modelling machine loading problem in reconfigurable manufacturing systems
   Ignacio Eguia, Jesus Racero, Fernando Guerrero

3 - Manufacturing process flexibility and capacity expansion using Robust Optimization features in AIMMS
   Ovidiu Listes, Frédéric Babonneau, Christian Van Delft, Jean-Philippe Vial

4 - Multi-objective synchronized planning in dynamic collaborative manufacturing networks
   ?enay Sad?ç, Jorge Pinho de Sousa, José Crispim
TD-08
Tuesday, 14:30-16:00
RB-Epsilon

Graph cut algorithms in Computer Vision

Chair: Ramin Zabih

1 - Graph Cuts for Scene Understanding
   Philip Torr

2 - Proposal selection in higher-order graph cuts
   Hiroshi Ishikawa

3 - Submodular Relaxations for Pseudo-Boolean Optimization
   Fredrik Kahl, Petter Strandmark
EURO/ROADEF Challenge Session 1

Chair: Christian Artigues
Chair: H. Murat Afsar
Chair: Ender Özcan
Chair: Emmanuel Guere
Chair: Eric Bourreau
Chair: Kedad-Sidhoum Safia
Chair: Marc Sevaux

1 - ROADEF/EURO Challenge 2012 : Machine Reassignment
   Eric Bourreau, H. Murat Afsar, Christian Artigues, Emmanuel Guere, Ender Özcan, Kedad-Sidhoum Safia

2 - Attacking Google’s machine reassignment problem using mathematical programming, metaheuristics and heuristics.
   Christos Gogos, Christos Valouxis, Panayiotis Alefragis, Efthymios Housos

3 - Hybrid Method for Machine Reassignment Problem
   Saïd Hanafi, Hideki Hashimoto, Koji Nonobe, Michel Vasquez, Yannick Vimont, Mutsunori Yagiura
TD-10
Tuesday, 14:30-16:00
RB-Theta

Cutting and Packing 7

Chair: Silvio de Araujo

1 - How to deal with alternative cutting lengths in a one-dimensional cutting stock problem
   Markus Siepermann, Richard Lackes, Torsten Noll

2 - A pseudo-polynomial time algorithm for a subclass of the Variable-Sized BPP with Conflicts
   Mohamed Maiza, Mohammed Said Radjef, Sais Lakhdar

3 - Multiobjective genetic algorithms to the one-dimensional cutting stock problem
   Silvio de Araujo, Helenice Florentino, Kelly Poldi

4 - Optimization of the outbound boxes dimensions of mobile phones in a factory located in the Industrial Park of Manaus in Amazon State, Northern of Brazil.
   Fabricio Costa
TD-11
Tuesday, 14:30-16:00
RB-Iota

Heuristic Methods for Arc Routing Problems

Chair: Ana Catarina Nunes

1 - Metaheuristics for household refuse collection
Ana Catarina Nunes, Maria Cortinhal, Cândida Mourão

2 - Solving a location-arc routing problem using a TS-VNS approach
Rui Borges Lopes, Carlos Ferreira, Beatriz Sousa Santos

Paper moved from session TD-41

3 - Taxonomy of concepts and terms in administration
Erwin Reizes
TD-12
Tuesday, 14:30-16:00
RB-Omicron

Rescheduling

Chair: Leo Kroon
Chair: Anita Schöbel

1 - Recovery from disruptions with recovery length controlled
   Luis Cadarso, Angel Marín, Gabor Maroti

2 - Robustness in crew re-scheduling
   Dennis Huisman, Lucas Veelenturf, Daniel Potthoff, Leo Kroon, Gabor Maroti, Albert Wagelmans

3 - A geometric approach for rescheduling railway timetables by considering passenger transfers in the system
   Francisco A. Ortega Riejos, Juan A. Mesa, Miguel Angel Pozo, Justo Puerto

4 - Railway crew rescheduling on ultra-short term
   Pieter Fioole
TD-13
Tuesday, 14:30-16:00
RB-Tau

Logistics and Manufacturing & Warehousing

Chair: Luca Bertazzi

1 - Stochastic Dynamic Programming Algorithms for an Integrated Logistic System with Outsourced Transportation
   Demetrio Laganà, Adamo Bosco, Luca Bertazzi

2 - A modelisation for multimodal network design: application to the hinterland of a port
   Arnaud Knippel, Sophie Michel, Ibrahima Diarrassouba, Cédric Joncour

3 - Approximated neighborhood evaluation for complex logistics support design problems
   Emanuele Manni, Abdallah Alalawin, Gianpaolo Ghiani, Chefi Triki

4 - Combinatorial optimization techniques for the design of reconfigurable machines
   Olga Battaïa, Alexandre Dolgui, Nikolai Guschinsky, Genrikh Levin
TD-14

Tuesday, 14:30-16:00
RB-Omega

Workforce Scheduling I

Chair: Jan Lange

1 - Ants for the Integrated Vehicle and Crew Scheduling Problem
   David Pash, Andrej Brodnik

2 - A Model for the Vessel Crew Scheduling Problem
   Alexander Leggate, Tibor Illés, Robert Van der Meer, Kerem Akartunali

3 - Heuristic Solution Approaches for Check-in Counters’ Workforce Scheduling with Heterogeneous Skills
   Emilio Zamorano de Acha, Raik Stolletz

4 - Scheduling Preventive Maintenances for Semiconductor Manufacturing Using CP
   Jan Lange
TD-15
Tuesday, 14:30-16:00
RB-2101

Vector and Set-Valued Optimization II

Chair: Vicente Novo  
Chair: Enrico Miglierina

1 - Lower and upper Ginchev derivatives of vector functions and their applications to multiobjective optimization  
Marcin Studniarski, El-Desouky Rahmo

2 - Saddle point results for approximate proper efficiency in vector optimization problems  
Lidia Huerga, César Gutiérrez, Vicente Novo

3 - Global optimization in Rn with box constrains and applications  
Miguel Delgado Pineda

4 - A notion of condition number in multiobjective optimization  
Enrico Miglierina, Monica Bianchi, Elena Molho, Rita Pini
Statistical, Games and Optimization Analysis in Climate Meta-Models

Chair: Alain Haurie
Chair: Frédéric Babonneau

1 - Computational Analysis of a Stochastic Climate Game Model
   Alain Haurie, Olivier Bahn, Roland Malhamé, Julien Thénié

2 - Modeling Climate Negotiations as a Game Design Problem
   Guillaume Jean Tarel, Alain Haurie, Frédéric Babonneau, Marc Vielle

3 - Meta-modelling of coupled climate-economic dynamics
   Frédéric Babonneau, Neil Edwards, Phil Holden, Amit Kanudia, Maryse Labriet

4 - Climate Statistics for Energy Meteorology
   John Boland
Global Optimization 1

Chair: Herman Mawengkang

1 - On solving non-convex mixed-integer nonlinear programming problems using active constraint strategy
   Hardi Tambunan, Herman Mawengkang

2 - Developing an integrated model for river water quality to estimate wastewater removal efficiencies
   Syafari Syafari, Herman Mawengkang

3 - Modeling the dynamic interaction of social networks
   Maya Silvi Lydia, Herman Mawengkang

4 - Comparison of Novel Optimization Algorithms on Intelligent Well Production Performance
   Morteza Hassanababdi, Ali MirHassani, Mahdi Nadri Pari, Seyyed Mahdia Motahhari
TD-18
Tuesday, 14:30-16:00
RB-2107

Location Analysis

Chair: Burak Boyacı

1 - **Operational Research connecting Statistics and Cartography**
   José L. Pino, Mª Teresa Cáceres

2 - **A parametric analysis on optimal locations for an entering firm under delivered price competition**
   Blas Pelegrin, Pascual Fernandez, María D. García

3 - **Extended Hypercube Queueing Models for Stochastic Facility Location Problems**
   Burak Boyacı, Nikolas Geroliminis
TD-19 has moved from MA-15
TD-19

Tuesday, 14:30-16:00
RB-2111

Heuristics

Chair: Edite M.G.P. Fernandes

1 - Using neural networks to map beam angles into intensity objective function values in IMRT optimization problems  
   Joana Matos Dias, Humberto Rocha

2 - A study of derivative-free optimization techniques for handling the sampling aspect in automated algorithm configuration  
   Zhi Yuan, Thomas Stütze

3 - Solving Quadratic 0-1 Knapsack Problem Using an Artificial Fish Swarm Algorithm  
   Edite M.G.P. Fernandes, Md. Abul Kalam Azad, Ana Maria A.C. Rocha
TD-20
Tuesday, 14:30-16:00
RB-2113

Decision Theory and Analysis

Chair: Tina Comes

1 - Assessing the Impact of Stock Volatility on the Efficiency of Listed Commercial Banks: A Conditional Nonparametric Approach
Anamaria Aldea, Luiza Badin, Carmen Lipara

2 - Explaining Results and Uncertainties of a Robust Scenario-Based Multi-Criteria Decision Support System: Generation of Natural Language Reports
Tina Comes, Frank Schultmann

3 - Implausible alternatives in the elicitation of multi-attribute value functions
Rudolf Vetschera, Elisabeth Wolfsteiner, Wolfgang Weitzl

4 - Modified BIPOLAR Method for Multi-criteria Decision Analyses under Risk
Olena Sobotka, Ewa Konarzewska-Gubala
TD-21
Tuesday, 14:30-16:00
RB-2115

Risk Management

Chair: Ulla Hofmann

1 - The general approach to the modeling of the risk management procedures and its specification for investment problems
   Tatiana Zolotova

2 - Growth Optimal Portfolio Insurance — does it pay
   Ursula Walther

3 - Analysis of Measurement Methods of the Utility Function in context of Prospect Theory
   Ulla Hofmann, Thomas Burkhardt

4 - Long-term Investment Behaviour Considering Financial Constraints — An Analysis in the Context of Information Technology
   Stefan Pfosser, Vasko Isakovic
Experimental Economics and Game Theory

Chair: Ulrike Leopold-Wildburger
Chair: Gerhard-Wilhelm Weber

Paper moved from session WD-43

1 - An Alternative Approach for Exponential Smoothing Method
   Ali Sabri Taylan, Güçkan Yapar

2 - Reputation of arbitrators in bargaining models
   Vladimir Mazalov, Julia Tokareva

3 - The effects of honesty and social preferences on reporting behavior
   Ulrike Leopold-Wildburger, Arleta Mietek

4 - Finding a fair cost allocation mechanism in flexible horizontal supply chains
   Christine Vanovermeire, Kenneth Sörensen
**TD-23**

*Tuesday, 14:30-16:00*

**RB-Delta**

**Recent Advances of Mathematical Programming in Supply Chain Management**

Chair: Turan Paksoy  
Chair: Eren Ozceylan  
Chair: Gerhard-Wilhelm Weber

1. **An exact algorithm for the green vehicle routing problem**  
Çaır Koç, Ismail Karaoglan, Sevgi Erdogan

2. **Artificial Bee Colony Algorithm for Solving Uncapacitated Facility Location Problems**  
Mustafa Servet Kuran, Eren Ozceylan, Turan Paksoy

3. **Comparisons of Different Fuzzy Mathematical Programming Approaches on Supply Chain Network Design Problem**  
Nimet Yapici Pehlivan, Eren Ozceylan, Turan Paksoy

4. **Integration of Reverse Supply Chain Optimization and Disassembly Line Balancing**  
Eren Ozceylan, Turan Paksoy
TD-24
Tuesday, 14:30-16:00
CC-A11

Forecasting methods

Chair: Aris Syntetos

1 - Boot.EXPOS: Strength and sensibility
   Clara Cordeiro, Manuela Neves

2 - Complexity of exponential smoothing models and its influence on forecast quality in retail
   Johannes Püster, Axel Winkelmann, Justus Holler, Jörg Becker

3 - Estimating autoregressive models in the presence of missing data and non-normally distributed error terms
   Korneel Bernaert, An Peeters

4 - Neural networks for streamflow series forecasting: A comparative study between echo state networks and MLP's
   Hugo Siqueira, Levy Boccato, Romis Attux, Christiano Lyra
Pathways toward low carbon transport

Chair: Sandrine Selosse

1 - GHG emissions cap impact on French biofuel mix using MARKAL/TIMES Model
   Paul Hugues, Edi Assoumou, Nadia Maïzi
   
   Paper moved from session WA-25

2 - Impact of a carbon tax on french tranports sector: A TIMES model for mobility.
   Jean-Michel Cayla

3 - The option value of electrified vehicles from a welfare perspective
   Adrien Vogt-Schilb, Manon Solignac, Céline Guivarch

4 - Technology and social factors in passenger transport: a comparative assessment of different leverages
   François Briens, Edi Assoumou
   
   Paper moved to session WA-25

An evaluation of the European CCS potential
Olivia Ricci, Sandrine Selosse
OR in Agriculture, Forestry and Fisheries

Chair: Marcela Gonzalez-Araya

1 - Multiple criteria and group decision methods to valuate ecosystem services
   Marina Segura Maroto, Concepcion Maroto, Baldomero Segura

2 - Optimal control models for sustainable fishery management
   Joao Lauro D. Faco'

3 - A mixed integer linear model for planning harvest applied to apple orchards
   Marcela Gonzalez-Araya, Wladimir Soto-Silva

   Paper added to session

4 - Sustainability of agriculture - only a dream considering the world population growth?
   Joern Hamann

   Sustainability of agriculture tries to meet mankind’s needs of the present without compromising the future. The agricultural sector - cornerstone of food security - has to provide food for almost 35 % more people globally by mid-century. Without doubt, this can and will be reached. However, the question is whether it is possible with a sustainable agriculture. In any case, a lot of money must be spent on agricultural innovations in order to reach the goal of sufficient food for all especially without any further impairment of biological systems.
TD-27
Tuesday, 14:30-16:00
CC-A25

Uncertainties in Decision Processes

Chair: Ahti Salo

1. **Sources and management of uncertainty in investment appraisals influenced by corporate social responsibility**
   Aron Larsson, Sara Vickman, Leif Olsson

2. **Bayesian evaluation and selection strategies in portfolio decision analysis**
   Eeva Vilkkumaa, Juuso Liesö, Ahti Salo

3. **Uncertain mine clearance quality and how it affects the decision to perform quality control in humanitarian demining**
   Tobias Fasth, Aron Larsson, Love Ekenberg

4. **Action Research for assessing the impact of scenario-based multi-criteria interventions on the strategic decision-making process**
   Camelia Ram
Anticipation and Synchronization

Chair: Susie Vrobel

1 - Trust as Embodied Anticipation
   Susie Vrobel

2 - Distortions of spatial phase and temporal-synchronism disorders in amblyopia
   Uwe Kämpf

3 - Effects of accuracy feedback on fractal characteristics of time estimation
   Sebastian Wallot, Nikita Kuznetsov
DEA and Performance Measurement: Methodology 3

Chair: Chris Tofallis

1 - Constructing rankings in DEA - a goal programming approach  
   Paulo Morais, Ana Camanho

2 - On the Environmental Variables Analysis in Two Stages DEA  
   Rafael C Leme, Anderson Paulo Paiva, Pedro Paulo Balestrassi, Paulo Eduardo Steele Santos

3 - Value Efficiency for the FDH model  
   Merja Halme, Pekka Korhonen, Juha Eskelinen

4 - Economic efficiency of european air traffic control systems  
   Kenneth Button, Rui Neiva
TD-30
Tuesday, 14:30-16:00
CC-A31

Data confidentiality 2

Chair: José Antonio González Alastrué

1 - A Fix and Relax Heuristic for Controlled Tabular Adjustment
   Daniel Baena Mirabete, Jordi Castro

2 - Potential Breaches of Confidentiality in Statistical Tables containing Magnitude Data
   Martin Serpell, Jim Smith, Alistair Clark

3 - On data protection for graphs: application to social networks
   Vicenc Torra, Klara Stokes

4 - Improving the solution of CTA through valid inequalities
   José Antonio González Alastrué, Jordi Castro
TD-31
Tuesday, 14:30-16:00
CC-A33

Data Mining in Economics and Ecology

Chair: Ivan Reyer
Chair: Renato Bruni

1 - Predicting the customer churn in Social Network games based on multiple criteria decision making models
     Chiao-Chen Chang, Yang-Chieh Chin

2 - Modeling partial customer churn: on the value of first product-category purchase sequences
     Vera Miguéis, Dirk Van den Poel, Ana Camanho, João Cunha

3 - Predicting the fundamental value of financial assets by ridge regression
     Michael Kamp, Mario Boley, Thomas Gaertner

4 - Electricity consumption and economic growth causality in OECD countries: a panel cointegration approach
     Kasirga Yildirak, Ali Sabri Taylan, Cumhur Ekinci
National Integrated Assessment Models

Chair: Magnus Fröhling

1 - Environmental assessment of energy scenarios for the deployment of carbon capture and storage (CCS) on coal fired power plants in the UK
   Konstantinos Tzanidakis, Tim Oxley, Helen ApSimon

2 - A simulation-based approach for a national integrated assessment model for Germany
   Patrick Breun, Rebecca Ilsen, Magnus Fröhling, Frank Schultmann

3 - Managing without Growth: Italian Scenarios
   Simone D’Alessandro, Giorgio Gallo, Giovanni Bernardo

4 - Computer modeling of urban air quality and related health effects
   Piotr Holnicki, Zbigniew Nahorski, Marko Tainio
OR for Education and Sustainable Development

Chair: Alexander Makarenko
Chair: Gerhard-Wilhelm Weber

1 - Self-organization processes in the European Higher Education Area
   Marek Frankowicz

2 - Industrial heritage as an educational polygon for development strategies
   Vladimir Hain, Eva Kralova

3 - A hybrid MCDM approach to assess the sustainability of students’ preferences for university selection
   Metin Dagdeviren, Kabak Mehmet

4 - Competitive market vs. central planning economy and long-run growth
   Kenji Miyazaki
TD-34

Tuesday, 14:30-16:00

CC-A39

OR for Sustainable Living and Development

Chair: Pedamallu Chandra Sekhar
Chair: Theodor Stewart
Chair: Gerhard-Wilhelm Weber

1 - Healthy housing environment in small towns in Southeastern Poland
   Justyna Kobylarczyk

2 - Combined multicriteria and scenario analysis as aid to sustainable development
   Theodor Stewart

3 - The effect of organizational communication in intrapreneurship and business performance
   Öktem, Hakan Turgut, Toyenda Tokmak, Gözde Kubat

   Paper moved to session MB-18

The Antecedents and the Benefits of Partnership in PEF (Private Equity Fund) of South Korean Industries: The Sustainability Perspective
   Hansuk Lee, Seongtae Hong, In-Young Lee
Robust logistic applications

Chair: Tobias Winkelkotte

1 - Robust Model for Dynamic Multilevel Capacitated Facility Location under uncertainty
   Vincenzo De Rosa, Marina Gebhard, Jens Wollenweber

2 - Scheduling Long Distance Transports in a Postal Distribution Network
   Tobias Winkelkotte, Li Sun

3 - New approach to The Single Track Railway Scheduling Problem
   Maya Laskova, Alexander Lazarev, Elena Musatova
QMPD Session 2

Chair: Markus Siegle

1 - Queuing model of hop-by-hop overload control in SIP signaling network
Yuliya Gaidamaka, Pavel Abaev, Konstantin Samouylov, Alexandr Pechinkin, Sergey Shorgin

2 - Dependability assessment of large railway systems
Grégory Buchheit, Olaf Malassé, Nicolae Brînzei

3 - Colored Petri Nets based modeling and simulation of bandwidth allocation
Julija Asmuss, Gunars Lauks, Viktors Zagorskis

4 - SFERA: A Simulation Framework for the Performance Evaluation of Restart Algorithms in service-oriented systems
Alexandra Danilkina, Philipp Reinecke, Katinka Wolter
TD-37

Tuesday, 14:30-16:00

CC-Act

OR in Health & Life Sciences 4

Chair: Fabricio Sperandio

1 - Optimal timing of joint replacement using mathematical programming and stochastic programming models
   Baruch Keren, Joseph Pliskin, Yossi Hadad

2 - Probabilistic Risk Assessment methods application for medical device reliability
   Robertas Alzbutas, Darius Naujokaitis, Vytautas Janilionis, Giedrii Alzbutienii

3 - Integrating probability distribution elicitation with Markov decision modeling: a case study in the treatment of patients with heart failure
   Qi Cao, Douwe Postmus, Hans Hillege, Erik Buskens

4 - Robust surgery scheduling via simulation optimization
   Fabricio Sperandio, Bernardo Almada-Lobo, José Borges
**TD-38**

*Tuesday, 14:30-16:00*

**HH-Colombus**

### Multiobjective Optimization for Decision Support

Chair: *Heinz Roland Weistroffer*

1. **IND-NIMBUS Framework for Interactive Multiobjective Optimization**  
   Vesa Ojalehto, Jussi Hakanen, Kaisa Miettinen

2. **State of Multiobjective Optimization Software**  
   Heinz Roland Weistroffer, Yan Li

3. **On Developing User Interface for Interactive Multiobjective Optimization**  
   Jussi Hakanen, Kaisa Miettinen, Suvi Tarkkanen, Hannakaisa Isomaki

4. **Laplacian Regular Multiple Criteria Linear Programming for Semi-supervised Classification**  
   Zhiquan Qi
MCDA software for real-world MCDA problems

Chair: Brian Reddy

1 - a MCDA tool for evaluating the overall comfort onboard the French high speed trains (TGV)  
   Mohamed, Lounes Mammeri

2 - Eliciting ElectreTri category limits for a group of decision makers  
   Vincent Mousseau, Olivier Cailloux, Patrick Meyer

3 - Investigating mcda approaches for the national institute for health and clinical excellence  
   Brian Reddy
1 - Improving ranking performance with cost-sensitive ordinal classification via regression
   Hsuan-Tien Lin, Yu-Xun Ruan, Ming-Feng Tsai

2 - A new rule-based method for label ranking
   Massimo Gurrieri, Xavier Siebert, Philippe Fortemps

3 - Learning preference relations with Kronecker kernels: Some theoretical and algorithmic results
   Tapio Paikkala

4 - Efficient information retrieval in bioinformatics with conditional ranking algorithms
   Willem Waegeman
TD-41

Tuesday, 14:30-16:00
HH-Heyerdahl

Dynamical Systems and Mathematical Modelling in OR

Chair: Selma Belen
Chair: Gerhard-Wilhelm Weber

1 - Fractional partial differential equations driven by fractional Gaussian noise
   Mahmoud El-Borai, Khairia El-Said El-Nadi

2 - A discrete system simulating an e-shop built bottom up from customer behavior
   Peter Vojtas, Ladislav Peska

3 - A Hybrid Modelling Approach for Physical Network Design under Demand Uncertainty
   Suttipong Meeyai

   Paper moved to session TD-11
   Taxonomy of concepts and terms in administration
   Erwin Reizes
Advances in Stochastic Modeling and Simulation

Chair: Basak Tanyeri

1 - A Comparison of Artificial Neural Network and Multinomial Logit Models in Predicting Mergers
   Nilgun Fescioglu-Unver, Basak Tanyeri

2 - A survey analysis on the investment attitudes of individual investors
   Belma Ozturkkal

3 - Stochastic interventions: Methods to model uncertainty
   Shweta Agarwal, Gilberto Montibeller

4 - Records Properties of Nonstationary Time Series
   Ana Elizabeth García Sipols, Clara Simon de Blas, M. Teresa Santos Martin
TD-43
Tuesday, 14:30-16:00
BW-Granite

Stochastic and robust optimization

Chair: Abdel Lisser

1 - Solving SCOPF problems by a new structure-exploiting method
   Naiyuan Chiang

2 - A Second-Order Cone Programming approach for Linear programs with joint probabilistic constraints
   Abdel Lisser

3 - Robust portfolio optimization - impact of copula and estimation choice
   Justyna Majewska, Grażyna Trzpiot

4 - On reduction of quantile optimization problems with discrete distributions to mixed integer programming problems
   Vladimir Norkin, Andrey Kibzun, Andrey Naumov
Model Generation and Model Selection

Chair: Michael Khachay
Chair: Vadim Strijov

1. **Search for Optimal Composite Indicators**  
   Miroslav Klucik

2. **Nonlinear regression model generation and graph transformations**  
   Roman Sologub

3. **Multiclass classification of cardio-vascular disease patients with sample size estimation**  
   Anastasia Motrenko

4. **Mixture models in the financial time series forecasting**  
   Vadim Strijov
Quantitative Approaches in Managerial and Financial Accounting

Chair: Matthias Amen

1. Optimizing continuous inventory
   Matthias Amen

2. Meta Managerial Accounting — quantitative approaches for designing managerial accounting systems
   Markus Puetz

3. Corporate taxes, capital structure and valuation: Combining Modigliani/Miller and Miles/Ezzell
   Ulrich Schäfer, Stefan Dierkes

4. Electronic transfer of financial data to banks - reasons for refusal and possible improvements
   Karina Sopp


□ TE-01

Tuesday, 16:30-17:30
Opera

Celebration of EURO and its Presidents

Chair: Gerhard Wäscher
Chair: M. Grazia Speranza

1 - 40 Years of EURO: History, Applications, Future Potentials
   Hans-Jürgen Zimmermann

2 - Celebration of the EURO Presidents
   M. Grazia Speranza, Gerhard Wäscher
Keynote Lecture: Professor Boris Polyak

Chair: Leonidas Sakalauskas

1. Robust eigenvector problem and its application to PageRank
Boris Polyak
New Models for Project Scheduling

Chair: Christian Artigues

1 - An integrated solution procedure for project staffing
   Broos Maenhout, Mario Vanhoucke

2 - Variable resource consumption and dynamic activity duration in the resource-constrained project scheduling problem
   Torben Schramme, Leena Suhl, Stefan Bunte

3 - Integer programming and constraint propagation for scheduling under energy constraints
   Christian Artigues, Pierre Lopez, David Rivreau

   Paper moved from session WD-02

4 - A preprocessing procedure to improve recent exact algorithms for the resource-constrained project scheduling problem
   Alexander Schnell, Richard Hartl
EURO/ROADEF Challenge Session 2

Chair: H. Murat Afsar
Chair: Christian Artigues
Chair: Ender Özcan
Chair: Eric Bourreau
Chair: Emmanuel Gueret
Chair: Kedad-Sidhoum Safia
Chair: Marc Sevaux

1 - Constraint-based large neighborhood search for machine reassignment
   Jochen Speck, Felix Brandt, Markus Völker

2 - Constraint-based large neighborhood search approach based on constraint programming for the machine reassignment problem
   Deepak Mehta, Barry OSullivan, Helmut Simonis

3 - Combining VNS, Simulated Annealing, and a Greedy Heuristic for the ROADEF/EURO 2012 Challenge
   Frederic Roupin, Laurent Alfandari, Franck Butelle, Camille Coti, Lucian Finta, Gérard Plateau, Antoine Rozenknop

4 - A GRASP approach for the machine reassignment problem
   Michaël Gabay, Sofia Zaourar
Combinatorial Optimization: Applications

Chair: Stephan Visagie

1 - Selecting subsets of foods to measure nutrient exposure: the max_r method
   Hannelie Nel, Martin Kidd

2 - A pallet arrangement algorithm for legal loads
   Neil Jacobs

3 - An algorithm for the bi-objective integer minimum cost flow problem
   Salima Nait Belkacem

4 - On the optimization of a unidirectional picking line in a DC.
   Jason Matthews, Stephan Visagie
Topics in combinatorial optimization I

Chair: Eric Bourreau

1 - A column generation model for Eternity 2
   Eric Bourreau

2 - Optimization of a Nonlinear Workload Balancing Problem
   Stefan Emet

3 - Efficient Parallel Algorithm for Solving UNSAT 3-SAT and Similar Instances Via Static Decomposition
   Emir Demirović, Haris Gavranovic

4 - Clique-Forest partitions of P-4-tidy graphs
   Sulamita Klein, Loana Nogueira, Raquel Bravo, Fabio Protti
Variable Neighborhood Search and hybrid metaheuristics

Chair: Dauwe Vercamer

1. Variable neighborhood search for Unit commitment problem  
   Raca Todosijevic, Igor Crevits, Saïd Hanafi, Marko Mladenovic, Nenad Mladenovic

2. A VNS for the Real-Life Asymmetric Large-Scale MTSP with Stochastic Customers  
   Dauwe Vercamer, Dirk Van den Poel, Birger Raa

3. Environmental unit commitment problem with CO2 taxes  
   Marko Mladenovic, Igor Crevits, Saïd Hanafi, Nenad Mladenovic, Raca Todosijevic

Paper added to session

4. A system based on ontologies, agents and metaheuristics applied to the multimedia service of the brazilian digital television system  
   Toni Wickert, Arthur Gomez

With the advent of the Brazilian Digital Television System the users will be able to have an interactive channel. Thus, will be possible to access the multimedia application server, i.e., to send or to receive emails, to access interactive applications, among others. This paper proposes the development and the implementation of an architecture that includes a module that suggests the content to the user according to his profile and another module to optimize the content that will be transmitted. The implementation was developed using ontologies, software agents and metaheuristics.
Logistics and Vehicle Routing

Chair: Juan José Salazar González
Chair: Hipólito Hernández-Pérez

1 - One stage approximation algorithm to solve the 2LCVRP
   Javier Faulin, Angel, A. Juan, Alba Agustín, Oscar Domínguez

2 - Large Neighborhood Search for solving the Newspaper Delivery Problem
   Belma Turan, Karl Doerner, Richard Hartl, Verena Schmid

3 - A multi-commodity Pickup-and-Delivery Problem
   Hipólito Hernández-Pérez, Juan José Salazar González

   Paper added to session

4 - The Robust Vehicle Routing Problem with Stochastic Demand
   Remy Spliet, Adriana F. Gabor, Rommert Dekker

   We consider a vehicle routing problem where a schedule has to be designed before demand is known. Next, demand is revealed and we are allowed to adjust the original schedule to ensure capacity constraints are satisfied. However, it is not allowed to differ too much from the original schedule. Difference is measured by counting arcs that are used in the original schedule, but not in the adjusted schedule. We encountered this problem at Dutch retail chains. Too many adjustments, distorts operations beyond what managers think is acceptable. We develop a heuristic based on the classical Cluster-First Route-Second principle for the (Capacitated) Vehicle Routing Problem.
Satisfiability and Hypergraphs

Chair: Stefan Porschen

1 - Euler walks in uniform hypergraphs
Zbigniew Lonc, Pawel Naroski

2 - Generalized Complexity of Subsumption
Arne Meier

3 - A satisfiability-based approach for generalized tanglegrams on level graphs
Andreas Wotzlaw, Ewald Speckenmeyer, Stefan Porschen

4 - Satisfiability thresholds beyond k-XORSAT
Andreas Goerdt, Lutz Falke
1 - On tightness in the analysis of Branch and Bound algorithms.
   Nicolas Bourgeois

2 - Moderately exponential approximation for Feedback Vertex Set.
   Emeric Tourniaire

3 - Fast algorithms for finding specific subgraphs in Biology
   Marc Bailly-Bechet

4 - Bipartite finite Toeplitz Graphs
   Sara Nicoloso, Ugo Pietropaoli
Non-deterministic models 3

Chair: Ernest Benedito
Chair: Frédéric Dugardin

1 - Performance analysis through stochastic OEE simulation
   Werner Schroeder, Markus Gram

2 - A Two Stage Solution Procedure of Stochastic Programming Problem for
    Production Planning with Advance Demand Information
   Nobuyuki Ueno, Koji Okuhara, Takashi Hasuike

3 - Stochastic bi-level programming of production planning in a reconfigurable
    aircraft fuselage assembly
   Yohanes Kristianto

4 - Strategic capacity planning in a single-site production system considering
    renewal, maintenance, inventory and cash-flow management under uncer-
    tainty
   Ernest Benedito
Scheduling problems with additional constraints

Chair: Roman Capek

1 - New heuristics for the permutation flowshop problem with flowtime minimization
   Ruben Ruiz, Quan-Ke Pan

2 - A soft computing based approach to integrated process planning and scheduling with setup and machine capacity considerations
   Filiz ?enyüzlüler, Adil Baykaso?lu, Turkay Dereli

3 - Blocking hybrid flow shop robotic cell scheduling problem with unrelated parallel machines, machine eligibility constraints and multiple part types
   Seyda Topaloglu, Atabak Elmi

4 - Resource constrained project scheduling problem with alternative process plans and total changeover cost minimization
   Roman Capek
WA-12
Wednesday, 8:30-10:00
RB-Omicron

Railway Optimization I

Chair: Gabrio Curzio Caimi
Chair: Marco Laumanns

1 - A decomposition approach to real-time train rescheduling
   Leonardo Lamorgese

2 - Opportunities and challenges with new railway planning approach in Sweden
   Malin Forsgren, Martin Aronsson, Sara Gestrelius, Hans Dahlberg

3 - A Rapid Branching method for the Vehicle Rotation Planning Problem
   Markus Reuther, Ralf Borndörfer, Thomas Schlechte, Steffen Weider

4 - Railway transportation planning optimization
   Jean Damay, Francis Sourd
WA-13

Wednesday, 8:30-10:00
RB-Tau

Uncertainty in Inventory Management

Chair: Mario Guajardo

1 - Forest biomass planning under uncertainty
Mikael Rönnqvist, Patrik Flisberg, Mikael Frisk

2 - Safety Stock Placement in Multi-Echelon Inventory Systems - A Comparison of the Stochastic-Service and Guaranteed-Service Approaches
Thomas Wensing

3 - Inventory management and pooling of spare parts in an energy company
Mario Guajardo, Mikael Rönnqvist
WA-14

Wednesday, 8:30-10:00
RB-Omega

Workforce scheduling II

Chair: Lakhdar Djeffal

1 - Solving the Integrated Physician and Surgery Scheduling Problem Under Stochastic Demand
Christophe Van Huele, Mario Vanhoucke

2 - An Optimisation Model for Staff Planning in a Home Care Organisation
Pablo Andrés Maya Duque, Marco Castro, Kenneth Sørensen, Peter Goos

3 - A Branch and Bound Algorithm for Pharmacy Duty Scheduling Problem
Ozgur Ozpeynirci

4 - A Mixed Integer Linear Program for Scheduling Problem
Lakhdar Djeffal
**WA-15**

**Wednesday, 8:30-10:00**

**RB-2101**

**Vector and Set-Valued Optimization III**

Chair: Vicente Novo  
Chair: Elena Molho

1. **Accuracy functions and robustness tolerances in vector discrete optimization**  
   Yury Nikulin, Marko M. Mäkelä, Olga Karelkina

2. **On generalized well-posedness for vector optimization**  
   Ruben Lopez

3. **A notion of well-posedness in set-valued optimization**  
   Elena Molho, César Gutiérrez, Enrico Miglierina, Vicente Novo
Conic Optimization: Algorithms and Applications

Chair: Knut Haase

1 - Speeding up the spectral bundle method by solving the quadratic semidefinite subproblems with a PSQMR approach
   Christoph Helmberg, Kim-Chuan Toh

2 - New results in copositive optimization
   Mirjam Duer

3 - A Semidefinite Optimization Approach to Multi-Row Facility Layout
   Philipp Hungerländer, Miguel Anjos

4 - A Branch-and-Price Approach for Sales Force Deployment
   Knut Haase, Sven Müller
Global Optimization 2

Chair: Herman Mawengkang
Chair: Dmitry Krushinsky
Chair: Gerhard-Wilhelm Weber

1 - Modeling Super-flexibility Sustainable Distribution Centre of a Supply Chain
   Ronsen Purba

2 - On multi-objective black box optimization of expensive objectives
   Vytautas Jancauskas, Antanas Zilinskas, Panos Pardalos

3 - Optimality and multiobjectiveness of cell formation in group technology
   Dmitry Krushinsky, Boris Goldengorin, Jannes Slomp

   Paper moved to session TA-34
   Fish Processed Production Planning Under Uncertainty Considering Quality
   Tutiarny Naibaho
Portfolio Decision Analysis

Chair: Marius Radulescu

1 - Absolutely optimal portfolios
Gheorghita Zbaganu, Marius Radulescu

2 - Structured Portfolio Management under Ambiguity
Jean-luc Prigent, Hachmi Ben Ameur

3 - Determination of the Optimal Weights in a Currency Portfolio with Sharpe Ratio Maximizing Approach
Celal Barkan Güran, Oktay Ta?

4 - Applications of portfolio theory to production planning for fish farms
Marius Radulescu, Constanta Zoie Radulescu, Sorin Radulescu
WA-21

Wednesday, 8:30-10:00

RB-2115

Financial Service Management

Chair: Heinz Eckart Klingelhofer

1 - Long-term Simulation of Investment Strategies
   Geraldine Tchegho, Thorsten Poddig

2 - Investments into Services
   Heinz Eckart Klingelhofer

3 - When to cut a tree
   Fritz Helmedag

4 - When to cut a tree given sustainability constraints
   Thomas Burkhardt
Optimization in Machine Learning

Chair: Ronny Luss
Chair: Vadim Strijov

1 - Application of cutting plane methods in machine learning
   Vojtech Franc

2 - Sparse Rank-One Matrix Approximations: Convex Relaxations, Direct Approaches, and Applications to Text Data
   Ronny Luss, Marc Teboulle

3 - Optimizing support vector regression parameters by using global search algorithm
   Alexey Polovinkin, Konstantin Barkalov, Nikolai Zolotykh, Iosif Meyerov, Sergey Sidorov
Data Mining and Decision Making

Chair: Benjamin Gotthardt

1 - Development of Traffic Accidents Prediction Model with Neural Networks
   Muhammed Yasin Çodur, Ahmet Tortum

2 - Multi product Newsvendor-problem - solution with NCP and a non-trivial effect
   Benjamin Gotthardt, Marc Reimann

3 - A cash flow and profitability monitoring system for retailers in the greek pharmaceutical industry
   George Marinakos, Sophia Daskalaki, Theodor Drinias, Kostas Tsekouras
Future role of nuclear

Chair: Nicklas Forsell

1 - Future challenges for the French power generation paradigm
   Edi Assoumou, Vincent Mazaric, Nadia Maizi

2 - Looking Japan energy future after the 11th March 2011’s earthquake
   Adrien Wacziarg, Nadia Maizi, Prabodh Pourouchottamin

   Paper moved to session TD-25
   Impact of a carbon tax on french tranports sector: A TIMES model for mobility.
   Jean-Michel Cayla

4 - Critical Analysis of "Energy 2050" report: An overview of the French electricity mix
   Renaud Dudouit

   Paper moved from session TD-25

5 - An evaluation of the European CCS potential
   Olivia Ricci, Sandrine Selosse
OR and Environmental Management

Chair: Ralf Gössinger
Chair: Michael Kaluzny

1 - Resilience of the smart meter-enabled electricity supply chains
   Behzad Samii, Hakan Ümit

2 - Value co-creation system for B2B service: A case study on after-sales service of electric power industry
   Nobuhiko Nishimura

3 - Energy price models: Regime switching with clustering techniques
   Baptiste Salasc, Steven Gabriel, Yohan Shim
WA-27

Wednesday, 8:30-10:00
CC-A25

Decision Support Systems

Chair: Pascale Zarate

1 - Decisions, processes, and decision processes for enabling risk sharing and performance creation at the buyer-supplier interface
Kristian Rotaru, Carla Wilkin, Leonid Churilov

2 - Modelling to generate alternatives using biologically-inspired algorithms
Julian Scott Yeomans, Raha Imanirad

3 - The Role of product factors, sellers’ factors and attitude toward risk on e-store purchasing
Arik Sadeh

*Paper moved from session TA-26*

4 - A multicriteria decision scheme for water pipe replacement prioritization
Youssef Tlili, Amir Nafi
WA-28
Wednesday, 8:30-10:00
CC-A27

OR Military Applications

Chair: Ana Isabel Barros
Chair: Herman Monsuur

1 - Taking uncertainty into account in Unmanned Aerial Vehicle tour planning
Lanah Evers, Kristiaan Glorie, Suzanne van der Ster, Ana Isabel Barros, Herman Monsuur

2 - Multi objective decision analysis for fighter squadrons flight scheduling problem
Mehmet Durkan

3 - Determining maintenance manpower requirements for aircraft units
Nicole van Elst, Wouter Noordkamp

4 - Lifetime management of defence fleet capability
Patrick Tobin
Data Mining

Chair: Erik Kropat

1. **Exact and heuristic algorithms based on Support Vector Machine for Feature Selection with application to Financial Problems**  
   Renato De Leone, Sonia De Cosmis

2. **Arrhythmia Classification via Mathematical Programming**  
   Emre Çimen, Gurkan Ozturk

3. **Proposal for generation of the three-way Perceptual Map using non-metric Multidimensional Scaling with clusters**  
   Moacyr Machado Cardoso Junior, Rodrigo Scarpel
Scheduling Applications

Chair: Krystsina Bakhrankova

1 - Single machine scheduling with due dates and perishable raw materials
   Jean-Charles Billaut, Federico Della Croce, Patrick Esquirol, Jean-François Tournamille

2 - Optimum cost blending application in flour mills
   Mehmet Akif Sahman, Abdullah Oktay Dundar, Adem Alpaslan Altun

3 - Production Scheduling in Batch Process Industries Using Timed Automata Models
   Subanatarajan Subbiah, Christian Schoppmeyer, Sebastian Engell
   *Paper moved from session MC-11*

4 - Development of an optimisation framework for scheduling of street works
   Rahman Pilvar
WA-32
Wednesday, 8:30-10:00
CC-A34

DEA and Performance Measurement: Methodology 4

Chair: Cecilio Mar-molinero

1 - On the properties of a linear transformation of variables in Data Envelopment Analysis
   Abolfazl Keshvari, Pekka Korhonen

2 - Classifying Inputs and Outputs Based on TOPSIS Method Using Modified DEA Model
   Sahand Daneshvar, Gokhan Izbirak

3 - Weights in the multi-activity DEA model
   Cecilio Mar-molinero, Fabiola Portillo, Diego Prior
Sustainable Development in Civil Engineering and Multi-attribute Decision Making

Chair: Tatjana Vilutiene
Chair: Jana Selih

1 - Logistics significance of wood product manufacturing on competitiveness based management
Kristine Fedotova, Ineta Geipele, Sanda Geipele

2 - Structural Reliability Analysis and Decision Support Applying Probabilistic Methods
Robertas Alzbutas, Gintautas Dundulis

3 - Model of structure solution selection for the sustainable building’s design
Ernestas Gaudutis, Klaus Holschemacher, Jolanta Tamosaitiene

4 - Development of a multicriteria model for comprehensive assessment of residential units
Jana Selih

Paper moved from session WB-33

Selection of the rational modernization measures: Case of art school modernization in Birstonas city
Tatjana Vilutiene, Ceslovas Ignatavicius

Paper moved to session WB-33
Solution concepts for TU-games

Chair: Ilya Katsev

1 - The $[0,1]$-nucleolus in 3-person cooperative TU-games
   Nadezhda Smirnova, Svetlana Tarashnina

2 - The lexicographic prekernel
   Elena Yanovskaya

3 - The SD-prenucleolus for TU games
   Ilya Katsev

   Paper moved from session MB-34

4 - Cooperative games on accessible union stable systems
   Rene van den Brink, Encarnación Algaba, Chris Dietz
Sports and OR

Chair: Luciano Mercadante

1 - A proposal for redesign of the FedEx Cup playoff series on the PGA TOUR
   Chris Potts, Nicholas Hall

2 - The pooling of sports teams in parallel competitions
   Dennis Van den Broeck

3 - Forecasting in-play match outcome in One-day international Cricket
   Muhammad Asif, Ian McHale

4 - Patient transportation and mountain running: looking for optimal solutions
   Martin Bracke
Societal Complexity, Healthcare and Sustainable Development

Chair: Dorien DeTombe
Chair: Eizo Kinoshita

1 - How to handle societal complexity
   Dorien DeTombe

2 - A framework for asking questions about the state of the art: the Methodology of Societal Complexity
   Stephen Taylor

3 - Globalization or isolation? - Ricardo's Model
   Eizo Kinoshita

4 - Critical systems practice in generating creative knowledge
   Slavica P. Petrovic
WA-37

Wednesday, 8:30-10:00
CC-Act

OR in Health & Life Sciences 5

Chair: Ana Viana

1 - Operations Research for pediatric care systems: an opportunity for the personal medical advisor in antibiotic treatment
   Jelena Hadzi-Puri?, Jeca Grmusa

2 - An accurate model of Critical Care Unit through queueing theory
   Izabela Komenda, Jeff Griffiths, Vincent Knight

3 - Providing healthcare for elderly in smart homes
   Radu Prodan, Ioan Nascu

4 - A compact formulation for the Kidney Exchange Problem
   Xenia Klimentova, Miguel Constantino, Ana Viana, Joao Pedro Pedroso, Abdur Rais, Filipe Alvelos
Multiobjective Optimization in Location Problems

Chair: José Rui Figueira
Chair: Christiane Tammer

1 - Robust multicriteria optimization problems
   Elisabeth Köbis

2 - Location Problems with Future Facilities
   Andrea Wagner, Kathrin Klamroth, Christiane Tammer

3 - An algorithm for solving multicriteria location-cost optimization problems
   Shaghaf Alzorba

4 - Robustness in Multiobjective Optimization
   Jonas Ide, Anita Schöbel, Matthias Ehrgott
Dynamic Programming 1

Chair: Lidija Zadnik Stirn

1 - Decision support model based on group AHP and dynamic programming for optimal regulation of protected areas
   Lidija Zadnik Stirn

2 - A dynamic programming approach to analyze the development of non conventional oil supply under uncertainty: application to the Canadian oil sands
   Frederic Lantz

3 - A Parallel Procedure for Dynamic Multi-objective TSP
   Weiqi Li

4 - Bi-criteria optimization problem of binary objects flow servicing by stationary service processor with storage container
   Anastasia Kuimova
Preference Learning 4

Chair: Willem Waegeman

1 - Preference elicitation for interactive learning of Optimization Modulo Theory problems
   Andrea Passerini, Paolo Campigotto, Roberto Battiti

2 - On the characterization of a ranking procedure based on a natural monotonicity constraint
   Michael Rademaker, Bernard De Baets

3 - Preference learning for automated reasoning
   Evgeni Tsivtsivadze, Daniel Kuehlwein, Tom de Ruijter, Twan van Laarhoven, Josef Urban, Tom Heskes

4 - Learning from preferences in the context of Case-Based Reasoning (CBR)
   Patrice Schlegel
Young scientists doing research in OR

Chair: Alexis Pasichny

1 - Heteroscedastic processes in finance modelling
   Bohdan Pukalskyi

2 - Comparative analysis of methods for prediction of finance and economic processes.
   Yaroslav Shevchenko

3 - Mathematical methods for regional sustainable development modeling based on SD measurement metrics
   Alexej Orlov
Robust Optimization and Randomized Methods

Chair: Erik Kropat
Chair: Gerhard-Wilhelm Weber
Chair: Ayse Özmen

1 - A robust optimization approach to production planning under non-compliance risks
Ban Kawas, Marco Laumanns, Eleni Pratsini

2 - Fast sample average approximation for minimizing Conditional-Value-at-Risk
Eduardo Moreno, Daniel Espinoza

3 - Stochastic optimization of nonlinear problems with constraints and differentiable functions: The wait and see method
Kherchi Hanya

4 - Randomized Clustering: Weakening Necessary Conditions for the Confidence Interval of the True Number of Clusters
Mikhail Morozkov, Oleg Granichin, Zeev (Vladimir) Volkovich
Stochastic programming in industry I

Chair: Laureano Fernando Escudero

1 - Risk averse measures in Stochastic mixed 0-1 Optimization
   Larraitz Aranburu, Laureano Fernando Escudero, María Araceli Garín, Gloria Perez, Gloria Perez

2 - Scenario cluster partitioning in the Lagrangian based procedures
   Aitziber Unzueta, Laureano Fernando Escudero, María Araceli Garín, Gloria Perez

3 - Parallel computing via break stage scenario clustering for multistage stochastic programming
   Gloria Perez, María Merino, Laureano Fernando Escudero, María Araceli Garín, Unai Aldasoro

4 - Vehicle Routing with Soft Time Windows and Stochastic Travel Times: A Column Generation and Branch-and-Price Solution Approach
   Michel Gendreau, Duygu Tas, Nico Dellaert, Tom Van Woensel, Ton de Kok
WA-44

Wednesday, 8:30-10:00
BW-Marble

Data Analysis and Its Applications

Chair: Michael Khachay

1. Forecasting algorithm for short time series with preliminary classification
   Irina Yatskiv

2. A robust algorithm for sequential ANOVA with incomplete data
   Carmen Anido, Teofilo Valdes

3. A clustering method based on Independent Component Analysis
   Takashi Onoda

4. Dissimilarity Based on Cluster Discernibility on Attribute Subsets
   Yoshifumi Kusunoki, Tetsuzo Tanino
Non-Airline Revenue Management Applications

Chair: Jochen Gönsch

1 - Network capacity control and road-based freight transportation
   Jörn Schönberger

2 - Operational capacity management in the car rental industry
   Claudius Steinhardt, Jochen Gönsch

3 - Dynamic pricing and efficient management of installation and maintenance resources
   Rupal Rana

4 - An EMSR approach for revenue management with planned upgrades
   Jochen Gönsch, Sebastian Koch, Claudius Steinhardt
Keynote Lecture: Professor Matteo Fischetti

Chair: Elena Fernandez

1. On the role of randomness in exact tree search methods
   Matteo Fischetti, Michele Monaci
WB-02
Wednesday, 10:30-12h00
RB-Beta

Preemption, Lower Bounds and Robustness in Project Scheduling

Chair: Christoph Schwindt

1 - Incorporating costs in the RCPSP with pre-emption
   Francisco Ballestin

2 - Lower and upper bounds for preemptive project scheduling with generalized precedence relationships
   Christoph Schwindt, Tobias Haselmann

3 - Lower bounds for a Fixed Job Scheduling Problem with an equity objective function
   Damien Prot, Tanguy Lapegue, Odile Bellenguez-Morineau

4 - Increasing schedule robustness by task grouping
   Michel Wilson, Cees Witteveen
EURO/ROADEF Challenge Session 3

Chair: Christian Artigues
Chair: Ender Özcan
Chair: Emmanuel Guere
Chair: Eric Bourreau
Chair: Kedad-Sidhoum Safia
Chair: H. Murat Afsar
Chair: Marc Sevaux

1 - Google/ROADef Challenge: a 100-line LocalSolver model model qualifies for the final round
   Romain Megel, Bertrand Estellon, Thierry Benoist, Julien Darlay, Frédéric Gardi, Karim Nouioua

2 - Adaptive Local Search for Google Machine Reassignment problem
   Emir Demirović, Mirsad Buljubasic, Haris Gavranovic

3 - A Hybrid Large Neighborhood and Local Search for the Machine Reassignment Problem
   Thibaut Vidal, Hugues Dubedout, Renaud Masson, Julien Michallet, Puca Penna, Vinicius Petrucci, Anand Subramanian
New Ideas in Integer Programming

Chair: Francois Soumis

1 - A fast and accurate algorithm for stochastic integer programming, applied to stochastic shift scheduling
Rémi Pacqueau, Francois Soumis, Le Hoang

2 - Correction of an infeasible mixed integer linear programming problem towards feasibility
Dmitry Borodin, Viktor Gorelik

3 - Integral simplex using decomposition
Francois Soumis, Issmail Elhallaoui, Zaghrouti Abdelouahab

4 - A hybrid solution to configure H.264/AVC video CODEC for the Brazilian Digital TV
Iris Linck, Arthur Gomez
Topics in combinatorial optimization II

Chair: Robert Manger

1 - Fixing rules, Reduction and Optimal resolution for the Knapsack Problem with Setups
   Abdelkader Sbihi

2 - Adding an Edge between Two Levels of a Complete K-ary Linking Pin Structure Minimizing Total Distance
   Kiyoshi Sawada

3 - Minimizing the costs of evacuation paths by decomposing network flows
   Jan Peter Ohst, Stefan Ruzika

4 - Implementing the work function algorithm by network flows and flow cost reduction
   Robert Manger, Tomislav Rudic
Industrial Organization

Chair: Luis Ferreira

1 - **Parallel vs. Sequential Interaction Protocols for the Multilateral Negotiations in Distributed, Multi-agent Environment**
   *Piotr Palka*

2 - **Symmetric rendezvous search on a hexagon**
   *John Howard*

3 - **Lorenz and lexicographic maximal allocations for bankruptcy problems**
   *Javier Arin*
WB-08

Wednesday, 10:30-12h00

RB-Epsilon

Boolean Optimization in Graph Theory

Chair: Martin Milanic

1 - Forbidden induced subgraph characterizations of graph classes
   Guillermo Durán

2 - The Price of Connectivity for Vertex Cover
   Oliver Schaudt

3 - Equistable graphs: conjectures, results, and connections with Boolean functions
   Martin Milanic
Optimization Problems on Graphs

Chair: Mirjana Cangalovic

1 - An algorithm for finding the most probable cut set
Mirko Vujosevic, Dragana Makajic-Nikolic, Nebojsa Nikolic

2 - Strong metric dimension of generalized Petersen graphs GP(n,1)
Mirjana Cangalovic, Jozef Kratica, Vera Kovacevic Vujcic

3 - A Set Covering Approach to Solving Heterogeneous Vehicle Routing Problem
Milan Stanojevic, Bogdana Stanojevic

4 - On the dominating tree problem
André Rossi
Supply Chain Management 1

Chair: Rifat Gürcan Özdemir

1 - Managing and Measuring Business Performance
   Otilija Sedlak, Zoran Ciric

2 - Optimization in supply chain decision making
   Marija Cileg, Tibor Kis

3 - A Trade Credit Model for Supply Chain Coordination
   Abhishek Chakraborty, Ashis Chatterjee

4 - An Analysis of Supply Chain Related Graduate Programs in Europe
   Y. Ilker Topcu, Emel Aktas, Sezi Cevik Onar, Des Doran
Other realistic scheduling problems

Chair: Alper Gucumengil

1 - Due-date assignment problems with common flow-allowance
   Gur Mosheiov, Baruch Mor

2 - Approximate algorithms for one-machine scheduling with interfering jobs
   Paz Perez Gonzalez, Jose M. Framinan

3 - Flowshop scheduling with flexible operations: Throughput optimization
   Hakan Gultekin

4 - Project Management Techniques: The Case of Agricultural Statistical Project
   Alper Gucumengil, Hüseyin Tatlıdil
Railway Optimization II

Chair: David Canca

1 - The management of rail system breakdowns for reducing travel demand impacts
Luca D’Acierno, Mariano Gallo, Bruno Montella, Antonio Placido

2 - New approaches for Wagon Routing in Railroad Freight Traffic
Robert Voll, Uwe Clausen

3 - A methodology to analyze quality of railway timetables
David Canca, Eva Barrena, Encarnación Algaba, Alejandro Zarzo

Paper moved to session TA-04
Analysis of the variability of travel conditions and flows along a transit line
Vincent Benezech, Fabien Leurent
WB-13

Wednesday, 10:30-12h00

RB-Tau

Transportation and Logistics

Chair: Achim Koberstein
Chair: Martin Grunewald

1 - Choosing charge carriers to guarantee the efficient material supply of production areas
   Dominik Berbig, Kai Furmans, Michaela Köker, Maximilian Altefrohne

2 - The impact of decision making strategies in different network types on stock fluctuation
   Meisam Nasrollahi, Jafar Razmi, Reza Ghodsi

3 - An integrated inventory-transportation system with periodic pick-ups and leveled replenishment
   Martin Grunewald, Thomas Volling, Thomas Spengler
WB-14
Wednesday, 10:30-12h00
RB-Omega

Timetabling and Transport

Chair: Hagai Ilani

1 - Algorithm for Solving Two-Stations Railway Scheduling Problem
   Elena Musatova, Alexander Lazarev

2 - An Integrated Optimization Model for Timetabling and Machinist Assignment in Light Rail Transit Systems
   Selmin DanisOncul, Demet Bayraktar

3 - Real-time Control Procedures for Transit
   Alessandro Sales, Stefano Carrese

4 - A General Two-directional Two-campus Transport Problem
   Hagai Ilani, Elad Shufan, Tal Grinshpoun
WB-15

Wednesday, 10:30-12h00
RB-2101

Theory and algorithms of bilevel programming I

Chair: Stephan Dempe

1 - Fuzzy bilevel optimization problem
Alina Ruziyeva, Stephan Dempe

2 - Necessary optimality conditions in pessimistic bilevel programming
Alain B. Zemkoho

3 - Vanishing Stress Constraints in Topology Optimization of Mechanical Structures
Wolfgang Achtziger

4 - Branch and bound method for the competitive facility location problem
Andrey Melnikov, Vladimir Beresnev
Linear and Quadratic Programming

Chair: David Bartl

1 - On the complexity of steepest descent algorithms for minimizing quadratic functions
   Clovis Gonzaga

2 - Convex quadratic programming applied to the stability number of a graph
   Maria F Pacheco, Domingos Cardoso, Carlos J. Luz

3 - A discrete version of Farkas’ Lemma and Duality Theorem for homogeneous linear programming
   David Bartl
   
   Paper moved from session MC-04

4 - Optimization for switching control system
   Shahlar Meherrem, Refet Polat
WB-17
Wednesday, 10:30-12h00
RB-2105

DC programming and DCA 1

Chair: Tao Pham Dinh

1 - A Continuous Optimization Approach for the General Art Gallery Problem
Mahdi Moeini, Alexander Kroeller, Christiane Schmidt

2 - A DC Programming technique for sparse regularization in least-squares and logistic regressions
Mamadou Thiao, Hoai An Le Thi, Tao Pham Dinh

3 - A DC programming approach for clustering massive data sets
Hoai An Le Thi, Ta Minh Thuy, Lydia Boudjeloud-Assala

4 - Solving Generalized Orienting Problem using DCA
Anh Son Ta, Hoai An Le Thi, Tao Pham Dinh, Djamel Khadraoui
WB-18

Wednesday, 10:30-12h00
RB-2107

Discrete Location

Chair: Antonio Manuel Rodriguez-Chía

1 - The p-center problem with capacities and failure ahead
   Alfredo Marín, Inmaculada Espejo, Antonio Manuel Rodriguez-Chía

2 - Assigning channels in cellular networks by neural networks
   Enrique Domínguez, Jose Muñoz

3 - A p-median model with distance selection
   Stefano Benati, Sergio García Quiles

4 - Single Allocation Capacitated Ordered Median Hub Location Models
   Antonio Manuel Rodriguez-Chía, Justo Puerto, Ana Bel Ramos-Gallego
WB-19

Wednesday, 10:30-12h00

RB-2111

Predictive Modelling in Finance and Insurance

Chair: Aysegul Iscanoglu Cekic

1 - Simulation Study for Modified Maximum Likelihood Estimations in Poisson Regression
   Muslu Kazım Körez, Evrim Oral, Yunus Akdoan, Coskun Kus

2 - An Application of Wavelet Regression on Risk Analysis
   Ayr Gerč, Tarik Yilmaz

3 - Predictive Power of Generalized Additive Models in Insurance
   Aysegul Iscanoglu Cekic

4 - An Application of Wavelet Regression in Exchange Rate Estimation
   Tarik Yilmaz, Ayr Gerč
Financial Optimization 1

Chair: J. E. Beasley

1. A Risk-Return Approach to Enhanced Indexation
   Francesco Cesarone, Renato Bruni, Andrea Scozzari, Fabio Tardella

2. Portfolio selection model based on technical, fundamental and market value analysis
   Tea Poklepović, Branka Marasovic, Zdravka Aljinovic

3. Computing the Nondominated Surface in Tri-criterion Portfolio Selection
   Ralph E. Steuer

4. Portfolio rebalancing with an investment horizon and transaction costs
   J. E. Beasley
WB-21

Wednesday, 10:30-12h00

RB-2115

Data Analysis in the Financial Sector

Chair: Patricia Herranz

1 - Sampling Frequency and Stochastic Diffusion Processes of Term Structure of Interest Rates and Exchange Rates
   A. Can Inci

2 - Seasonal allocation decision based on a multi-objective optimization
   Fellipe Santos, Adriano Lisboa, Douglas Vieira, Rodney Saldanha, Marcus Lobato

3 - Information acquisition of new technology for maintenance and replacement investment decisions
   Thomas Yeung, Khanh Nguyen, Bruno Castanier

4 - One approach to reduce some aspects of costs associated with long term care
   Patricia Herranz, Ana M. Martin Caraballo, M. Manuela Segovia-Gonzalez, Guerrero Flor
Fuzzy Optimization

Chair: Erik Kropat
Chair: Yoshiki Uemura
Chair: Kateryna Pereverza

1 - Involving fuzzy orders for multi-objective linear programming
   Olga Grigorenko

2 - Forecasting Enrollments Based on Particle Swarm Optimization and Neural Network Based Fuzzy Time Series
   Ozer Ozdemir, Memmedaga Memmedli

3 - Selection of appropriate smoothing parameter for different sample size in nonparametric fuzzy local polynomial models
   Munevvere Yildiz, Memmedaga Memmedli

4 - Dynamic Clustering to Improve Marketing Decisions in Retail Stores
   Richard Weber, Georg Peters
Recent Advances on Proximal Methods I

Chair: Hector Ramirez

1 - Dual convergence for penalty algorithms in convex programming
Miguel Carrasco, Felipe Alvarez, Thierry Champion

2 - Squared Hessian Riemannian metrics on convex sets and gradient-like optimization methods
Cristopher Hermosilla, Felipe Alvarez

3 - Convergence of the coupling of an inexact generalized proximal algorithm with barrier methods
Julio López

4 - Solving Network Flow Problems with General Non-Separable Convex Costs using a Two-phase Gradient Projection Algorithm
Kwong Meng Teo, Trung Hieu Tran
Data Mining in Early Warning Systems

Chair: Antonio Rodrigues

1 - Detection of seasonal changes in climate data by comparative analysis; A case study for Turkey
   Tülay Akal, Fidan Fahmi, Elcin Kartal Koc, Vilda Purutcuoglu Gazi, Cem Iyigun, Ceylan Yozgatligil, Inci Batmaz

2 - Developing precipitation models for continental central Anatolia, Turkey
   Fulya Aykan, Elcin Kartal Koc, Ceylan Yozgatligil, Cem Iyigun, Vilda Purutcuoglu Gazi, Inci Batmaz

3 - New statistical methods for climate change investigations
   Gregory Gurevich, Yossi Hadad

4 - Surveillance and security risk minimization in ports
   Antonio Rodrigues
Smart cities and Smart grids

Chair: Edi Assoumou

1. Demand response in smart grid systems
   Abhilasha Aswal, Sunil Kumar Vuppala, G. N. Srinivasa Prasanna

2. Smart grids and prospective modeling for the electricity sector
   Stephanie Bouckaert, Edi Assoumou, Nadia Maïzi

3. Towards Interactive Urban Planning with Local Search Techniques
   Bruno Belin, Marc Christie

4. Sustainable development and territory planning: a prospective approach to rethink cities
   Steve Lechevalier, Sandrine Selosse
Multi-Criteria Decision Making and Applications 1

Chair: Marta Castilho Gomes

1 - On the generation of positional voting systems with variable scores
   Bonifacio Llamazares

2 - Rank-scaled Integral Indicators of Ecological Impact
   Mikhail Kuznetsov

3 - Fast order recommendation separately for each explicit customer of large product system
   Peter Vojtas, Alan Eckhardt

4 - A bi-objective linear programming model for hazardous medical waste management
   Marta Castilho Gomes, Joaquim R. Duque
WB-27

Wednesday, 10:30-12h00
CC-A25

Web-based Spatial-temporal Collaborative Decision Support Systems

Chair: Fatima Dargam

1 - Scalarising methods in DSS Weboptim  
   Vassil Guliashki, Leoneed Kirilov, Krassimira Genova, Boris Staykov

2 - Hope: a web-based SDSS for urban management  
   Joao Coutinho-Rodrigues, Lino Tralhão, Eduardo Manuel Natividade-Jesus

3 - Criteria weighting considering the interaction with institution’s goals  
   Sheu-Hua Chen, Hong Tau Lee
OR Military and Security Applications

Chair: Ana Isabel Barros

1 - Interdiction in queueing networks  
   Tom van der Mijden

2 - A Smuggling Game with the secrecy of smuggler’s information  
   Ryusuke Hohzaki

3 - Modelling covert social networks  
   Ana Isabel Barros, Bob van der Vecht
Support Vector Machines. New results

Chair: Theodore Trafalis

Paper moved to session WB-29

Feature Ranking for Support Vector Machines with Second-Order Cone Programming
Sebastian Maldonado

2 - A collaborative recommendation using edge weighted SimRank
Ayaka Inoue, Yuichiro Miyamoto

3 - An Adaptive Weighted Kernel Technique for Online Training with Imbalanced Data
Theodore Trafalis, Nicolas Couellan
DEA and Performance Measurement: Applications 8

Chair: Juha Eskelinen

1 - Scale efficiency analysis of Brazilian logistic service providers industry
   Carlos Ernani Fries, Mônica M. M. Luna, Antonio G.N. Novaes

2 - Estimating the longevity of breeding individuals in beef cattle herds
   Juliana Cobre, Erlandson Saraiva, Sabrina Caetano

3 - Intertemporal Sales Efficiency Analysis of a Bank Branch Network: A Stochastic Nonparametric Approach
   Juha Eskelinen, Timo Kuosmanen

4 - An automatic democratic approach to weight setting applied to the new human development index
   Chris Tofallis
DEA and Performance Measurement: Applications 5

Chair: Sanjeet Singh

1 - Measuring Team Performances  
Kei Ogiwara, Tsutomu Mishina, Alejandra Gomez Padilla

2 - Group cohesion and organizational performance  
Cristina-Petronela Durneač

3 - DEAHP Approach for Manpower Performance Evaluation  
Sanjeet Singh, Remica Aggarwal

Paper moved to session MD-35  
A holistic approach for assessing the performance of maternity and new-born services  
Olga Li, Sérgio Santos, Carla Amado
WB-33

Wednesday, 10:30-12h00

CC-A37

OR in Sustainable Urban Development

Chair: Vida Maliene
Chair: Tatjana Vilutiene

1 - Sustainable and healthy housing: exploring stakeholders’ views
    Agne Prochorskaite, Vida Maliene

2 - Model for municipal real estate strategic management
    Egle Klumbyte, Rasa Apanaviciene
    Development of a multicriteria model for comprehensive assessment of residential units
    Jana Selih
    Paper moved from session WA-33

4 - Selection of the rational modernization measures: Case of art school modernization in Birstonas city
    Tatjana Vilutiene, Ceslovas Ignatavicius
    Paper moved from session WC-33

5 - Classification of factors influencing environmental management of enterprise
    Tatjana Tambovceva
Games and decision making

Chair: Sirma Zeynep Alparslan Gok

1 - Coalition formation in a bargaining game with a fixed payments contract and delegation
   Haruo Imai

2 - The impact of issue salience and distance in probabilistic spatial voting indexes
   Tom Blockmans, Frank Plastria, Stefano Benati, Guiseppe Vittucci Marzetti

3 - Blocks of flats renovation game
   Agne Reklaite

4 - On the interval Shapley value: two new characterizations
   Sirma Zeynep Alparslan Gok
WB-35
Wednesday, 10:30-12h00
CC-A41

Optimization Modeling I

Chair: Bjarni Kristjansson

1 - Solving Constraint Programming problems with AIMMS
   Guido Diepen

2 - LocalSolver: black-box local search for combinatorial optimization
   Julien Darlay, Thierry Benoist, Bertrand Estellon, Frédéric Gardi, Romain Megel, Karim Nouioua

3 - Deploying MPL Optimization Models on Servers and Mobile Platforms
   Bjarni Kristjansson, Sandip Pindoria
WB-37

Wednesday, 10:30-12h00

CC-Act

OR in Health & Life Sciences 6

Chair: Vassilis Kostoglou

1 - Improve OR utilization and reduce number of required beds
   Theresia Van Essen, Johann Hurink, Erwin Hans

2 - Optimal experimental design for a pure birth process with incomplete information
   Ali Eshragh Jahromi

3 - Implementation of an OR model for the comparison of higher technological education specialties
   Vassilis Kostoglou, Michael Vassilakopoulos, Christos Koilias
Multiobjective Optimization and Transportation

Chair: Anatoly Levchenkov
Chair: Mikhail Gorobetz

1 - Multi-Objective Road Pricing: A Game Theoretic and Multi-Level Optimization Approach
Anthony Ohazulike, Georg Still, Walter Kern, Eric van Berkum

2 - Multi-objective optimization with an immune algorithm for a railway safety control system
Andrew Mor-Yaroslavtsev, Anatoly Levchenkov

3 - A Multi-Objective Minimum Cost Flow Problem to Design Safe Walking-Routes for School Children
Ken-ichi Tanaka, Ryuhei Miyashiro, Yuichiro Miyamoto

4 - Use of Adaptive Control Systems in Multi-Criteria Tasks in Electric Transport Control
Andrejs Potapovs
WB-39

Wednesday, 10:30-12h00
HH-Cousteau

Dynamic Programming 2

Chair: Martina Hesse

1 - A Dynamic Classification and Prediction Model for Road Departure Warning Systems
   Andre Possani Espinosa, Marta Cabo Nodar, Edgar Possani

2 - Some applications of Optimal Control in Sustainable Fishing in the Baltic Sea
   Dmitriy Stukalin

3 - Supporting Tailor-made Performance Management Systems by System Dynamics — A Multiple Criteria Based Software Evaluation
   Wolfgang Ossadnik, Ralf Kaspar

4 - Modeling carbon storage in cascading usage systems of wood and derived timber products
   Martina Hesse, Jutta Geldermann
Preference Learning 5

Chair: Willem Waegeman

1 - Preference-based reinforcement learning
   Weiwei Cheng

2 - Preference-based policy learning
   Riad Akrour, Marc Schoenauer, Michèle Sebag

3 - A simple algorithm for multi-label ranking
   Krzysztof Dembczynski, Wojciech Kotlowski, Eyke Hüllermeier
System Dynamics: demographics and methodology

Chair: David Wheat

1 - A Simulation Model of Demography & Economy in Lithuania  
   David Wheat

2 - A Simulation-based Analysis of Trends in Immigration and Crime  
   Richard McDowall

3 - Diagramming a Feedback Model of Emigration  
   Rasa Cincyte, David Wheat

4 - Modelling the Mechanisms of Behaviour Change at the Population level in a Social Marketing Context  
   Brian Dangerfield, Norhaslinda Zainal Abidin
WB-42 has moved to TA-42

Wednesday, 10:30-12h00
BW-Amber

Energy Systems Planning

Chair: Erik Kropat

1 - Planning Critical Resources for Offshore Oil Field Development under Uncertainty
   Leonidas Sakalauskas, Leonardo Moraes, Luiz Carlos Sousa, Roger Rocha, Adilson Elias Xavier

2 - A decision rule approach to medium-term hydropower scheduling under uncertainty
   Paula Rocha, Wolfram Wiesemann, Daniel Kuhn

3 - Refinery Operations Planning under Uncertainty
   Leonardo Nascimento, Helder Venceslau, Adilson Elias Xavier, Virgilio Jose Martins Ferreira Filho, Leonidas Sakalauskas, Roger Rocha
Extended Two-Stage Linear Stochastic Programs

Chair: Rüdiger Schultz

1 - Nonlinear Two-Stage Stochastic Programs
   Rüdiger Schultz, Tobias Wollenberg

2 - Some Remarks on Linear Stochastic Bilevel Programs
   Charlotte Henkel

3 - Decomposition Methods for Stochastic Programs with Dominance Constraints Induced by Linear Recourse
   Dimitri Drapkin

4 - A stochastic programming approach to optimization of information retrieval
   Vitaliy Vitsentiy
Collective Learning Procedures

Chair: Michael Khachay
Chair: Vadim Strijov

1 - Geometrical properties of connected search spaces for binary classification problem
Oleksandr Frei

2 - Approximation for Minimum Committee Problem
Konstantin Kobylkin

3 - Combinatorial theory for ensemble of algorithms
Andrey Ivakhnenko

4 - Computational complexity and approximability of several geometric covering problems.
Michael Khachay, Maria Poberiy
WB-45

Wednesday, 10:30-12h00

BW-Water

Customer-Oriented Revenue Management

Chair: Catherine Cleophas

1. Selling to Heterogeneous Customers of Uncertain Value considering both Opportunity Costs and Misclassification in a Dynamic Revenue Management Approach
   Michael Mohaupt, Andreas Hilbert

2. Deterministic Aggregation for Discrete Choice Models
   Jonas Rauch, Sebastian Sager

3. Customer-Oriented Extensions of Revenue Management Models and the Value of Intuition
   Catherine Cleophas

4. Filtering techniques to improve forecasting from small numbers in revenue management
   Philipp Bartke
■ WC-01

Wednesday, 12:30-14:00

RB-Alfa

Keynote Lecture: Professor Jonathan Caulkins

Chair: Richard Hartl

1 - Providing a Scientific Basis for Managing Illegal Drugs & Markets

Jonathan Caulkins
WC-02

Wednesday, 12:30-14:00
RB-Beta

Multi-Project Scheduling and Stochastic Project Scheduling

Chair: Rainer Kolisch

1 - A modified branch and cut approach for Resource Portfolio Problem under Relaxed Resource Dedication policy
   Umut Besikci, Umit Bilge, Gunduz Ulusoy

2 - Dynamic stochastic resource-constrained multi-project scheduling
   Rainer Kolisch, Thomas Fliedner, Philipp Melchiors, Walter Gutjahr

3 - Assorted sensitivity results in stochastic project networks
   Anand Paul
EURO/ROADEF Challenge Session 4

Chair: Christian Artigues
Chair: Ender Özcan
Chair: Emmanuel Guere
Chair: Eric Bourreau
Chair: Kedad-Sidhoum Safia
Chair: H. Murat Afsar
Chair: Marc Sevaux

1 - Offline, enhanced, adaptive large neighborhood search for the machine re-assignment problem
   Alberto Delgado, Yuri Malitsky, Dario Pacino, Kevin Tierney

2 - A hybridization of Simulated Annealing and sample local search for solving the machine reassignment problem
   Marcus Ritt, Gabriel Portal, Leonardo de Miranda Borba, Alexander J. Benavides, Luciana S. Buriol

3 - A co-evolutionary hyper-heuristic for ROADEF/EURO Challenge 2012 Machine Reassignment problem
   Wojciech Ja?kowski, Piotr Gawron, Marcin Szubert, Bartosz Wieloch

4 - A hybrid algorithm for machine reassignment
   Arnaud Lefooghe, François Legillon, François Clautiaux, El-ghazali Talbi
Combinatorial Optimization: Applications

Chair: Jan van Vuuren

1 - Minimizing setup time in colour printing schedules
   Alewyn Burger, Neil Jacobs, Jan van Vuuren, Stephan Visagie

2 - The cost of link failure in network protection
   Anton de Villiers, Alewyn Burger, Jan van Vuuren

3 - Variable selection in NIR spectroscopy data using a hybrid PSO algorithm
   Martin Kidd

4 - An optimisation-based sugarcane harvest scheduling decision support system for commercial growers in South Africa
   Jonas Stray, Jan van Vuuren
1 - Investigation of properties and solving of combinatorial optimization problems with linear constraints.
   Igor Grebennik, Oleksii Baranov

2 - On Mixed Integer Random Convex Programs
   Giuseppe Calafiore, Daniel Lyons, Lorenzo Fagiano

3 - The SCIP Optimization Suite - It’s all in the bag!
   Gerald Gamrath

4 - Dynamic Graph Generation in Lagrangian Relaxation
   Frank Fischer, Christoph Helmberg
 Mathematical Economics

Chair: Luis Ferreira

1 - On the convergence to Walrasian prices in random matching Edgeworthian economies
   Luis Ferreira

2 - A cooperative version of one group pursuit game
   Yaroslavna Pankratova, Denis Kuzyutin

3 - On the Experimental Investigation of the Stock-Exchange Game Model
   Igor Katin, Joana Katina, Jonas Mockus
WC-07
Wednesday, 12:30-14:00
RB-Eta

Rich vehicle routing problems

Chair: Jorge E. Mendoza
Chair: Victor Pillac

1 - A Unified Hybrid Genetic Search for Vehicle Routing Problems
Thibaut Vidal, Teodor Gabriel Crainic, Michel Gendreau, Christian Prins

2 - Constraint-based Construction Heuristics for Rich Vehicle Routing Problems
Félix Brandt, Anne Meyer

3 - Generalized disaggregation algorithm for the vehicle routing problem with time windows and multiple routes
Rita Macedo, Saïd Hanafi, François Clautiaux, Cláudio Alves, J. M. Valério de Carvalho

4 - A Mixed Integer Linear Programming Model For Solving Large-Scale Integrated Location-Routing Problems For Urban Logistics Applications at Groupe La Poste
Matthias Winkenbach, Paul Kleindorfer, Bernard Lemarié, Christèle Levêque, Alain Roset, Stefan Spinler
WC-08

Wednesday, 12:30-14:00

RB-Epsilon

Boolean Functions and Their Applications

Chair: Endre Boros

1 - On the Polyhedral Set of Bipartite TSP
   Bela Vizvari

2 - Some Results on Threshold Separability of Boolean Functions
   Giovanni Felici, Endre Boros

3 - Hardness Results for Approximate Pure Horn CNF Formulae Minimization
   Endre Boros, Aritanan Gruber
Maritime Transportation 3

Chair: Magnus Stålhane

1 - On routing and risk minimization in offshore helicopter transportation  
   Irina Gribkovskaia, Oyvind Halskau, Fubin Qian

2 - A combined pickup and delivery and inventory routing problem  
   Magnus Stålhane, Henrik Andersson, Marielle Christiansen

3 - A base integer programming model and benchmark suite for liner shipping network design  
   Fernando Alvarez, Berit Dangaard Brouer, Christian Edinger Munk Plum, David Pisinger, Mikkel M. Sigurd
WC-10

Wednesday, 12:30-14:00
RB-Theta

Humanitarian Logistics

Chair: Maria Besiou

1 - The environmental impact of humanitarian operations
   Jurgita Balaisyte, Ruth Carrasco-Gallego, Luk Van Wassenhove

2 - The Effects of Unsolicited Donations in Disaster Relief Operations
   Nha-Nghi Huynh, Sandra Transchel, Maria Besiou, Luk Van Wassenhove

3 - Funding strategies in humanitarian operations for relief and development
   Alfonso Pedraza-Martinez, Arian Aflaki

4 - Decentralisation and Earmarked Funding in Humanitarian Logistics for Relief and Development
   Maria Besiou, Alfonso Pedraza Martinez, Luk Van Wassenhove
WC-11
Wednesday, 12:30-14:00
RB-Iota

Realistic parallel machines problems

Chair: Olga Chub

1 - Minimising tardiness in parallel machine scheduling with additional mold type restrictions
   Amelia White, Andrea Raith

2 - MIP models and algorithms for earliness/tardiness scheduling problems on parallel machines
   Rosiane de Freitas Rodrigues, Rainer Xavier de Amorim, Bruno Cardoso Dias

3 - Multiobjective parallel machine scheduling using memetic algorithms
   Felipe Baesler, Oscar Cornejo

4 - Mathematical model and method for optimal planning several resources
   Olga Chub
Solution Methods at Seaport Container Terminals

Chair: Erhan Kozan

1 - An Integrated Approach to Optimising Container Processes at Multimodal Seaport Terminals
   Erhan Kozan, Brad Casey

2 - Yard crane scheduling by using a genetic algorithm at seaport container terminals
   Mehmet Ula? Koyuncuo?lu, Osman Kulak, Olcay Polat, Mustafa Egemen Taner

3 - Empty container management and the linkage between global and local allocations in export oriented countries: case of Thailand
   Montathip Chanpum

4 - Modeling and Optimal Management of Equipments of the BMT Containers Terminal (Bejaia’s Harbor)
   Fazia Aoudia-rahmoune, Sofiane Soualah, Aichouche Oubraham
Emerging Issues in Order Fulfillment

Chair: Bart MacCarthy
Chair: Philip Brabazon

1 - Auction-based coordination of retailers and manufacturer in the sales of configurable products
   Andreas Matzke, Thomas Völling, Thomas Spengler

2 - A review of works on the planning of capacities and orders in build-to-order automobile production
   Thomas Völling, Martin Grunewald, Andreas Matzke, Thomas Spengler

3 - Optimal design of open pipeline order fulfilment processes in the volume automotive sector
   Philip Brabazon, Bart MacCarthy
**WC-14**

**Wednesday, 12:30-14:00**

**RB-Omega**

**Timetabling and People**

Chair: *Sara McComb*

1. **Deterministic Optimization of Examination Timetables**  
   *Siti Khatijah Nor Abdul Rahim, Andrzej Bargiela, Rong Qu*

2. **The Classroom Allocation Problem in University Timetabling**  
   *Antony Phillips, Hamish Waterer, Matthias Ehrgott, David Ryan*

3. **Decision Support System for Modification of Timetables After Completion of Registration Process Involving Backlog Subjects**  
   *Sanjeev Kumar Guleria, A.K. Lal, Daljit Singh Bawa*

4. **Examining Team Communication Using Questionnaires, Simulation, and Optimization**  
   *Sara McComb, Ralitza Vozdolska, Deanna Kennedy*
Discrete bilevel optimization and Variational inequalities

Chair: Diana Fanghaenel

1 - Global Optimization of Mixed-Integer Bilevel Programming Problem
   Zhaohui Xu

2 - The Branch-and-Sandwich Algorithm for Mixed-Integer Nonlinear Bilevel Programming Problems
   Polyxeni-Margarita Kleniati, Claire Adjiman

3 - A bilevel problem with supermodular objective function in the lower level
   Diana Fanghaenel

4 - Existence results for quasivariational inequalities
   Didier Aussel
WC-16
Wednesday, 12:30-14:00
RB-2103

Linear programming: Algorithms and Applications

Chair: S.M. Atiqur Rahman Chowdhury

1 - The primal-dual column generation method
   Pablo Gonzalez-Brevis, Jacek Gondzio, Pedro Munari

2 - Compact Formulations of the Steiner Traveling Salesman Problem
   Saeideh D. Nasiri, Adam Letchford, Dirk Oliver Theis

3 - Computational experiments with a cutting plane algorithm for a time-indexed formulation
   Lotte Berghman, Frits Spieksma

4 - A Computer Technique for Solving Linear Programming Problems with Bounded Variables
   S.M. Atiqur Rahman Chowdhury
Nonconvex Programming

Chair: Hoai An Le Thi

1 - Rare event simulations applied to hierarchical sensor planning with partially known subprocess models
Frédéric Dambreville

2 - On the Permuted Perceptron Problem - A New formulation and approach
Hoai Minh Le, Hoai An Le Thi, Tiru Arthanari

3 - Solving the Multidimensional Assignment Problem via the Cross-Entropy method
Manh Nguyen Duc, Hoai An Le Thi, Tao Pham Dinh

4 - optimisation in water management with passive aeration of tanks
Nataliya Metla
Location Routing

Chair: Maria Albareda Sambola

1. Adaptive large neighborhood search for the two-echelon capacitated location routing problem
   Vera Hemmelmayr, Claudio Contardo, Teodor Gabriel Crainic

2. A Particle Swarm Optimization Approach for the Location-Routing Problem with Simultaneous Pickup and Delivery
   Ismail Karaoglan, Fulya Altiparmak

3. Sparsing arrival times in discrete location
   Maria Barbati, Giuseppe Bruno, Alfredo Marín

4. The reliable p-median problem with at-facility service
   Maria Albareda Sambola, Yolanda Hinojosa, Justo Puerto
Simulation in Estimation

Chair: Ahmet Çalık
Chair: Aysegul Iscanoglu Cekic

1 - Estimation of Stress-Strength Reliability for Exponential Geometric Distribution
   Aydın Karakoca, Smail Kınacı, Adem Yılmaz

2 - Simulation Study for the Comparison of Maximum Likelihood and Modified Maximum Likelihood Estimators in Logistic Regression
   Yunus Akdoğan, Evrim Oral, Muslu Kazım Körez, Coskun Kus

3 - Estimation of stress-strength parameter for exponential distribution based on masked data
   Demet Sezer, Smail Kınacı

4 - Fuzzy AHP/DEA Approach For Relative Efficiency Of Private Universities In Turkey
   Ahmet Çalık, Nimet Yapıcı Pehlivan, Ahmet Pekgör
**WC-20**

**Wednesday, 12:30-14:00**

**RB-2113**

**Financial Optimization 2**

Chair: Mariya Nikitina

1. **Investment timing with fixed and proportional costs of external financing**
   Michi Nishihara, Takashi Shibata

2. **On optimal strategies for long-term business**
   Efim Bronshtein

3. **Longevity Risk Management and Financial Uneasy Premonition**
   Tadashi Uratani

4. **On Minimizing the Ruin Probability by Investment**
   Mariya Nikitina
WC-21
Wednesday, 12:30-14:00
RB-2115

Ratings of Banks and Companies

Chair: Wissem Ennouri

1 - Cluster Analysis of Banks in Croatia Regarding their Characteristics
   Ante Rozga, Ksenija Domicic, Blanka ?krabi? Peri?

2 - Effectiveness of Credit Ratings
   Ivan Lichner

3 - Small and Medium-Sized Businesses through the Credit Crunch: Evidence from the UK
   Meng Ma, Galina Andreeva, Jake Ansell

4 - Pricing Default and Financial Distress Risks in Foreign Currency Corporate Loans in Turkey
   Aycan Yilmaz, I?il Erol
Fuzzy Scheduling and Fuzzy Quality Management

Chair: Erik Kropat
Chair: Alexej Orlov

1 - A comparison study of Wilcoxon and fuzzy Wilcoxon tests
   Gultekin Atalik, Sevil Senturk

2 - A design for sampling plans by attributes under fuzzy environment
   Ebru Turanoglu, Cengiz Kahraman

3 - Task Flow Control in the GRID-System
   Vlad Kucher

4 - The analysis of influence of a choice of a class of membership functions on quality of work of recognition system
   Nigar Aliyeva, Elviz Ismayilov
Recent Advances on Proximal Methods II

Chair: Hector Ramirez

1 - Lagrangian-penalization algorithm for constrained optimization
   Juan Peypouquet

2 - Interior Proximal Algorithm with Variable Metric for Second-Order Cone Programming: Applications to Structural Optimization
   Hector Ramirez, Felipe Alvarez, Julio López

3 - A Projected Subgradient -type method for Equilibrium Problems
   Susana Scheimberg, Paulo Sergio Santos

4 - Proximal Alternating Direction Methods Combining Quadratic Regularization with Divergence Kernels
   Natalia Ruiz, Felipe Alvarez
OR and Environmental Management - Decision Processes

Chair: Susanne Wiedenmann

1 - Supply Planning under Uncertainty for the Industrial Use of Renewable Resources
   Susanne Wiedenmann, Jutta Geldermann

2 - Hydro-turbines Optimization: Especificación and Operation
   Jéssica Pillon Torralba Fernandes

3 - Integrated Risk Management Applications in Electricity Retailing
   Fehmi Tanrisever, Geert Jongen
Criteria Weighting in Decision Support

Chair: Alexander Bolshoy
Chair: Mikhail Kuznetsov

1 - *A comparison of weight distributions in multi-attribute value theory*
   Jyri Mustajoki

2 - *"Hit and Run” for the efficient generation of weights*
   Gert van Valkenhoef, Tommi Tervonen, Nalan Baštürk, Douwe Postmus

3 - *Non-profit project portfolio evaluation and selection: A multicriteria approach*
   Nassim Dehouche, Daniel Vanderpooten

4 - *Maximization of a Sum of Kendall's Tau Rank-Correlation Coefficients*
   Alexander Bolshoy
WC-27
Wednesday, 12:30-14:00
CC-A25

Knowledge Management & Decision Systems

Chair: Shaofeng Liu

1 - Extending the analysis of the EURO Working Group on DSS Research Collaboration Network (EWG-DSS Collab-Net V.2)
   Pascale Zaraté, Fatima Dargam, David Dadenne, Isabelle Linden, Shaofeng Liu, Rita Ribeiro, Wei Sun

2 - Applying ontology in the analysis of a DSS Research Collaboration Network
   Fatima Dargam, Antonio C. S. Branco, Alexandre Rademaker, Renato Rocha Souza

3 - Ranking the seawater desalination methods by using multi criteria decision making approaches
   Amin Esmaeeli, Hooman Baghban Asghari nejad, Mahdi Zarghami
OR Military Applications II

Chair: Ana Isabel Barros

1 - Convoying against piracy
   Rien van de Ven, Jack Vermeulen

2 - Counter improvised explosive devices game
   Toru Komiya, Akinori Yasue

3 - A NATO Guide for Judgement-based Operational Analysis
   Ingrid Bastings, Diederik J.D. Wijnmalen

4 - Topology of Military C2 Systems and its relation to cyber warfare
   Herman Monsuur
Optimization and Data Mining (I)

Chair: Concha Bielza
Chair: Rubén Armañanzas

1 - Mathematical Models of Supervised Learning and Application to Biomedical Problems
   Mario Guarracino, Roberta De Asmundis

2 - Incorporating Partially Labeled Information into Kernel Spectral Clustering
   Carlos Alzate, Johan Suykens

3 - Restating clinical impression of severity index for Parkinson’s disease using just non-motor criteria
   Rubén Armañanzas, Pablo Martinez-Martin, Concha Bielza, Pedro Larrañaga
DEA and Performance Measurement: Applications 9

Chair: Ahti Salo

1. Measuring the Operation Efficiency for Bus Transit in Taiwan with Undesirable Outputs
   Chao-Chung Kang

2. Factors defining Effectiveness of automatic vehicle location systems
   Daniil Opolchenov

3. Chinese Companies Distress Prediction: An Application of Data Envelopment Analysis
   Zhiyong Li, Jonathan Crook, Galina Andreeva

4. Analyzing Portfolios of DMUs with Ratio-Based Efficiency Analysis (REA)
   Ahti Salo, Juuso Liesiö, Yongjun Li
OR and Ethics I

Chair: Cristobal Miralles
Chair: Fred Wenstøp

1 - On Multidimensional Performance Measures — A Critical Reflection and Future Developments
   João Clímaco

2 - Responsibility in Decision-Support
   Sven Diekmann

3 - Multicriteria analysis ranking the most developed EU countries
   Zeljko Racic, Matea Zlatkovic

4 - A value structured approach to conflicts in environmental management
   Fred Wenstøp
1 - Comparing groups of efficiency in Algarve Portuguese Hotels
   Isabel Pedro, Ricardo Oliveira, Rui Marques

2 - On the need for reform of the Portuguese Judicial System — Does Data Envelopment Analysis evidence support it?
   Sérgio Santos, Carla Amado

   Paper added to session

3 - Evaluation of alternative targets for graduate distance courses in Brazil using multiobjective models based on data envelopment analysis
   Silvio Gomes Júnior, Lidia Angulo-Meza, João Carlos Soares de Mello

   Classic DEA models determine efficiency indexes of DMUs. For an inefficient DMU one target is found. Subsequent works use multiobjective models, called MORO, that determine alternative targets. These projections are obtained with non proportional variations of the variables. In some real problems, some variables cannot change their levels. These variables are called non discretionary variables. In this paper, we present a case study that involves the efficiency evaluation of the Center for Higher Distance Education in Brazil with an integration of MORO models and non discretionary variables.

4 - Produce Patents or Journal Articles? A Cross-Country Comparison of R&D Productivity Change
   Chih-Hai Yang
Sustainable Construction Processes and supplier selection

Chair: Folke Björk

1 - Multi-criteria assessment of the sustainable renovation according on the methodology of the building certification system
   Milena Medineckiene, Folke Björk, Zenonas Turskis

2 - Sustainability prioritizing constructing projects of municipalities based on AHP and COPRAS-G: a case study about construction of footbridges in Iran
   Zenonas Turskis, Edmundas Kazimieras Zavadskas, Mohammad Hasan Aghdaie, Sarfaraz Hashemkhani Zolfani

3 - Sustainability assessment model of supplier selection problem
   Jolanta Tamosaitiene, Edmundas Kazimieras Zavadskas, Zenonas Turskis

Paper moved to session WB-33
Classification of factors influencing environmental management of enterprise
   Tatjana Tambovceva
Economic modeling and finance

Chair: Sirma Zeynep Alparslan Gok

1 - The Choquet Integral as a continuous certainty equivalent
   Gianni Bosi, Magali E. Zuanon

2 - An Adversarial approach to maximize gain due to finite precision errors in basic financial computations
   Ganesh Perumal M, Abhilasha Aswal, G. N. Srinivasa Prasanna

3 - Handling peak loads in queuing service systems
   Abraham Seidmann, Mariya Bondareva

4 - Pricing Strategies for Gaming-on-Demand
   Sumanta Basu, Soumyakanti Chakraborty
Recent Achievements in Regression and Classification

Chair: Fatma Yerlikaya Ozkurt
Chair: Semih Kuter

1 - Restructuring the forward step of CMARS by a mapping approach
   Elcin Kartal Koc, Cem Iyigun, Inci Batmaz, Gerhard-Wilhelm Weber

2 - Balance Optimization Subset Selection (BOSS) for Causal Inference with Observational Data
   Alexander Nikolaev, Sheldon Jacobson

3 - Testing of MARS on MODIS Images for Local Atmospheric Correction
   Semih Kuter, Zuhal Akyurek, Gerhard-Wilhelm Weber, Ayse Özmen

4 - Estimation of Multi-dimensional Stochastic Differential Equations with CMARS Method
   Fatma Yerlikaya Ozkurt, Gerhard-Wilhelm Weber
Recent Advances of OR on Societal Complexity

Chair: Dorien DeTombe
Chair: Gerhard-Wilhelm Weber

1 - By revitalization of ancient abandoned cemeteries to societal and economic strengthening of small sites
   Eva Kralova

2 - A surprising equivalence between Consolation of Philosophy and Methodology for Societal Complexity
   Nicolae Bulz
Operations Research in Health Care I

Chair: Patrick Hirsch

1 - Weekly routing and scheduling of home health care services
   Andrea Trautsamwieser, Patrick Hirsch

2 - Scheduling of urban home health care services using time-dependent multimodal transport
   Klaus-Dieter Rest, Patrick Hirsch

3 - Using agent-based modelling and simulation in patient adherence to medication
   Christos Vasilakis, Christina Pagel, Steve Gallivan, Nick Barber, Martin Utley

4 - Uncovering the hospital length of stay distribution: a finite mixture model approach
   Maria Guzman Castillo, Sally Brailsford, Honora Smith
Applications of Multiobjective Optimization

Chair: Carlos Henggeler Antunes

1 - A multi-objective model to determine electrical load control actions
Carlos Henggeler Antunes

2 - A Fuzzy Goal Programming Model for Solving Aggregate Production-Planning Problems under Uncertainty
Fernando Marins, Aneirson Silva, José Arnaldo Montevechi, Ubirajara Ferreira

3 - A Multi-objective Portfolio Optimization Model with Higher Order Moments
Bijaya Krushna Mangaraj, Gayatri Biswal

4 - Trade-off in statistical design process
Samuel Bohman, Maria Kalinina, Aron Larsson
WC-39
Wednesday, 12:30-14:00
HH-Cousteau

Cops and Robber Games

Chair: Nancy Clarke

1 - Slow Firefighting on Graphs
   Margaret-Ellen Messinger

2 - Cops and a Robber on a graph embedded into a surface
   Dirk Oliver Theis, Nancy Clarke

3 - Ambush Cops and Robbers
   Nancy Clarke
Model quality and modelling sustainable energy and transport systems

Chair: Pierre Kunsch

1 - Automatic control of turbo generators setting automatic frequency
   Meglouli Hocine

2 - Phasing-out nuclear energy in Belgium: is it feasible?
   Pierre Kunsch

3 - Model Quality: How to Build Better Models
   Markus Schwaninger
Modern project for involvement young people in OR community and OR education

Chair: Bohdan Pukalskyi
Chair: Kateryna Pereverza

1 - Achieving interdisciplinarity in OR by additional educational activities. Example of Summer School AACIMP
Iryna Smolina

2 - Odss.4SC: A summer school in Optimization and Decision Support Systems for Supply Chain Management
Giuseppe Bruno, Ana Amaro, Miguel Casquilho, Albert Corominas, Andrea Genovese, Juan Manuel Garcia Lopez, Amaia Lusa, Johan Magnusson, Henrique Matos, Joao Miranda, Sergio Rubio

3 - Mathematically formalized methodology for scenario study. Approaches for scenario space exploration
Kateryna Pereverza
Queueing Systems II

Chair: Erik Kropat
Chair: Devin Sezer

1 - Analyzing Multi-server Queueing Model with no Waiting Line
   Hanifi Okan Isguder, Sener Akpinar, Atabak Elmi, Alper Hamzadayi, Simge Yelkenci Kose

2 - Distribution Evaluation and Decomposition for Queueing Networks Modelling
   Jean-Sébastien Tancrez

3 - Alternative stochastic approaches for condition-based production-maintenance control
   Michael Kaluzny, Ralf Gössinger

Paper moved to session TC-22
Optimal Control Formulation of Query Model for Authentication Systems
   Devin Sezer, Ferruh Ozbudak, Yildirim Ustun
WC-43 has moved to MC-44

WC-44

Wednesday, 12:30-14:00
BW-Marble

Information and Intelligent Systems I

Chair: Wuyi Yue
Chair: Gerhard-Wilhelm Weber

1 - Malfunction diagnosis on air-conditioning using rough sets approach
   Hong Tau Lee, Sheu-Hua Chen

2 - Approach for the prolongation of the lifetime of a wireless sensor network
   Abdelmalek Boudries, Makhlof Aliouat

3 - Analysis of real-time traffic with the sleep mode in IEEE 802.16m networks
   Wuyi Yue, Shunfu Jin, Xiaofei Zhang

4 - Planning of Map Making Technique by Planning Method with Continuously Operating Reference Station (CORS-TR)
   Omur Esen, I.Bulent Gundogdu
Advanced Revenue Management

Chair: Claudius Steinhardt

1 - Pricing-cum-Inventory Decisions in Supply Chain Networks
   Lambros Pechlivanos, Panos Seferlis

2 - Modeling of customer choice behavior in revenue management
   Petr Fiala

3 - Incorporating Auction Games in Logistics Optimization Academic Course
   Charis Marentakis, Dimitrios Emiris, Maria Giannopoulou

4 - Decision tools for online pricing and sourcing for truckload trucking
   Hani Mahmassani, Diego Klabjan, Hamed Babai, Young Woong Park, Christopher Lindsey
Tutorial Lecture: Professor Karla Hoffman

Chair: Mikael Rönqvist

1. **Auctions: Why they proliferating and what you need to know to participate**
   Karla Hoffman
WD-02

Wednesday, 14:30-16:00
RB-Beta

Methods for Resource-Constrained Project Scheduling

Chair: Vincent Van Peteghem

1 - Solving resource-constrained project scheduling problems with new mathematical programming formulations
Thomas Kyriakidis, Georgios Kopanos, Michael Georgiadis

2 - Solving the resource-constrained project scheduling problem using large neighborhood search
Wolfgang Summerauer, Christian Almeder, Richard Hartl

3 - An Invasive Weed Optimization algorithm for the resource availability cost problem
Vincent Van Peteghem, Mario Vanhoucke

Paper moved to session WA-02

A preprocessing procedure to improve recent exact algorithms for the resource-constrained project scheduling problem
Alexander Schnell, Richard Hartl
Demand Responsiveness and Transportation Network Design

Chair: Gabriel Gutiérrez-Jarpa

1 - An analytical model to estimate the optimal cycle length of demand responsive feeder transit services
   Luca Quadrifoglio, Shatlesh Chandra

2 - Dynamic Vehicle Routing for Demand Responsive Transportation Services
   Jorge Pinho de Sousa, Rui Gomes, Teresa Galvão Dias

3 - Cut and Brach Synchronization Bus Timetabling
   Yasmin Rios-solis, Omar Ibarra-Rojas

4 - The Hierarchical Network Design Problem with Traffic Capture
   Gabriel Gutiérrez-Jarpa, Pablo Ibacache, Vladimir Marianov
Advances for solving Quadratic and Other Difficult 0-1 Optimization Problems

Chair: Monique Guignard-Spielberg
Chair: Peter Hahn

1 - **Eigenvalues of Voting Power Indexes**  
Lee Papayanopoulos

2 - **Extensive experiments with the improved hybrid genetic algorithm for the quadratic assignment problem**  
Alfonsas Misevicius

3 - **The hypergraph assignment problem**  
Olga Heismann, Ralf Borndörfer

4 - **0-1 quadratic optimization problems: convexification and solution.**  
Monique Guignard-Spielberg, Lucas Létocart, Gérard Plateau
Topics in integer and mixed integer programming II

Chair: Iskander Aliev

1 - Optimize the payout probability table in slot machines
   Xiaoming Liu, Zhaotong Lian, Xin Li

2 - The Master Corner Polyhedron: Vertices
   Vladimir Shlyk

3 - The K-Separator Problem
   Mohamed Ahmed Mohamed Sidi, Walid Ben-ameur, Jose Neto

4 - s-Fold Feasibility of Integer Knapsacks
   Iskander Aliev
WD-06

Wednesday, 14:30-16:00
RB-Gamma

Game Theory Applications

Chair: Luis Ferreira

1 - Analysis of stroke patients EEG signals on the base of cooperative game theory
   Hamidreza Navidi, Majid Hassanpour-ezatti, Saeid Barjesteh, Hadi Aghayari

2 - A game theoretical approach to the Emergency Medical Vehicle - Emergency Department interface
   Vincent Knight

3 - Non-conflicting redistribution of optimal income for non-cycling network systems
   Sergei Schreider

4 - Strategy for Land Acquisition: a game-theoretical model
   S Deman
WD-07

Wednesday, 14:30-16:00

RB-Eta

Applications of Vehicle Routing 2

Chair: Marco Castro

1 - An Exact Approach for the Clustered Vehicle Routing Problem
   Daniele Vigo, Maria Battarra, Gunes Erdogan

2 - A Comparison of Cross Entropy Algorithms for the Vehicle Routing Problem
   Edgar Possani, Marta Cabo Nodar

3 - Orienteering Problem with Hotel Selection: A Variable Neighborhood Search Method
   Ali Divsalar, Pieter Vansteenwegen, Dirk Cattrysse

4 - Improved Methods for the Travelling Salesperson Problem with Hotel Selection
   Marco Castro, Kenneth Sørensen, Pieter Vansteenwegen, Peter Goos
EURO/ROADEF Challenge Session 5

Chair: H. Murat Afsar
Chair: Eric Bourreau
Chair: Emmanuel Guere
Chair: Ender Özcan
Chair: Kedad-Sidhoum Safia
Chair: Christian Artigues
Chair: Marc Sevaux

1 - A late acceptance metaheuristic for the machine reassignment problem
    Wim Vancroonenburg, Tony Wauters

2 - Basic VNS for Machine reassignment
    Nenad Mladenovic, Bassem Jarboui, Dragan Urosevic

3 - ROADEF/EURO Challenge 2012 : Final Results announcement
    Eric Bourreau, H. Murat Afsar, Christian Artigues, Emmanuel Guere, Kedad-Sidhoum Safia, Ender Özcan, Marc Sevaux
WD-10  
Wednesday, 14:30-16:00  
RB-Theta  

Integrated Planning of Operations

Chair: Thomas Makuschewitz  
Chair: Marc-André Isenberg

1 - A graph theory based heuristic for capacity and cost oriented integrated production and maritime transport scheduling  
Jens Hartmann, Thomas Makuschewitz, Enzo Frazzon, Bernd Scholz-Reiter

2 - Solution of facility layout problem through discrete particle swarm optimization algorithm and an application  
Abdullah Oktay Dundar, Mehmet Akif Sahman, Muhammet Bezirci, Ali Alagoz

3 - Scheduling a flowshop of batch processors containing individual job families  
Marc-André Isenberg, Bernd Scholz-Reiter
1 - Integrated and robust planning of bulk port operations
   Nitish Umang, Michel Bierlaire

2 - Port dynamics - A challenge for network optimization in liner shipping
   Nguyen Khoi Tran, Hans-Dietrich Haasis

3 - Multi objective scheduling and environmental routing of maritime vessels
   Haakon Lindstad

   Paper moved to session TB-33
   Knowledge Management of Macro and Micro Seaport Repositories using Data Mining Techniques
   Ana Halabi Echevery, Deborah Richards, Ayse Bilgin, Jairo Montoya-Torres
Emerging Issues in New Product Development

Chair: Thomas Volling

1 - **Algorithms for Extending Battery’s lifespan in Electric Vehicles**  
   Ron Adany, Doron Aurbach, Sarit Kraus

2 - **Coordination by contracts in decentralized product development processes with uncertain development results**  
   Kerstin Schmidt, Thomas Volling, Thomas Spengler

*Paper moved to session TB-27*

**A Proposal of Diagnosis Procedure for BTO Products**  
Yuji Sato
**WD-15**

**Wednesday, 14:30-16:00**

**RB-2101**

**Theory and algorithms of bilevel programming II**

Chair: Alain B. Zemkoho

1. **Solution algorithm for linear bilevel programming problem**  
   Stephan Dempe, Shili Peng

2. **Some results in semivectorial bilevel optimal control problem**  
   Henri Bonnel, Jacqueline Morgan

3. **On an enumerative algorithm for solving eigenvalue complementarity problems**  
   Joaquim Judice, Luís Fernandes, Hanif Sherali, Maria Forjaz
WD-16
Wednesday, 14:30-16:00
RB-2103

Recent Advances in Linear Programming and Related Subjects

Chair: Tibor Illés

1 - The s-Monotone Index Selection Rules for Pivot Algorithms of Linear Programming
   Tibor Illés, Zsolt Csizmadia, Adrienn Nagy

2 - The numerical behavior of s-monotone index selection rules for the simplex algorithm
   Adrienn Nagy, Tibor Illés

3 - Advantages and disadvantages of successive linear programming methods for solving non-linear problems
   Zsolt Csizmadia

4 - Cutting Plane Methods for Solving Inexact Problems
   Fariba Pidani
WD-17

Wednesday, 14:30-16:00
RB-2105

DC programming and DCA 2

Chair: Tao Pham Dinh

1 - DC Programming via BMI constraints
   Yi-Shuai Niu, Tao Pham Dinh

2 - Combining multiobjective constraint satisfaction and sequential control for solving the sensors management of the intelligence process
   Ali Khenchaf, Manh Nguyen Duc, Dambreville Frédéric, Christophe Osswald, Abdelamalek Touni, Jean-Christophe Cexus

3 - A new efficient deterministic approach for mixed 0-1 multiobjective programming. Application to shift scheduling problems.
   Viet Nga Pham, Hoai An Le Thi, Tao Pham Dinh
Location Analysis and Disruptions

Chair: Mozart Menezes
Chair: Serigne Gueye

1 - An exact cooperative method for the simple plant location problem  
Philippe Michelon

2 - Critical Facility Capacitated r-Interdiction Location Problem: an example of grocery stores with limited demand  
Yuran Choi, Tsutomu Suzuki

3 - A Bilinear Programming Formulation for the p-Median Problem with Unreliable Facilities and Disruption Probability Classes  
Serigne Gueye, Mozart Menezes
WD-19

Wednesday, 14:30-16:00

RB-2111

Survival Analysis and Simulation

Chair: Coskun Kus
Chair: Aysegul Iscanoglu Cekic

1 - A new lifetime distribution with increasing failure rate
   Smail Kna?, Demet Sezer

2 - Optimal Warranty Policy for a Pareto Distributed Products based on Progressive Censored Sample
   Neriman Karaday?, Yunus Akdo?an, Coskun Kus, Shuo-Jye Wu

3 - Optimal Progressive Group Censoring Scheme under Cost Considerations for Pareto Distribution
   Coskun Kus, Yunus Akdo?an, Shuo-Jye Wu

4 - Generalized Linear Mixed Models (GLMMs) with a Financial Application
   Neslihan ?yt
1 - Performance measurement of online algorithms using geometric Brownian motion and quantile regression
   Esther Mohr, Robert Dochow, Günter Schmidt

2 - Optimal Dynamic Tax Evasion: A Portfolio Approach
   Francesco Menoncin, Rosella Levaggi

3 - Optimal Cash Management Using Impulse Control
   Peter Lakner, Joshua Reed

4 - The Lee Carter Method and Poisson Log-Bilinear Model: An Application To Turkish Census Data
   Ayse Arik, Basak Bulut, Erengul Ozkok, Meral Sucu
Capital Asset Pricing Models

Chair: Fabian Lutzenberger

1 - Testing the Capital Asset Pricing Model (CAPM) on the Central and South-East European Emerging Securities Markets
   Zdravka Aljinovic, Josipa Dzaja

2 - Risk Sensitive Approach to Inventory Management
   Muge Tekin, Suleyman Ozekici

3 - Valuation — Liquidity (Risk) and Cost of Equity
   Michael Ludwig, Stefan Stöckl, Dennis Diepold

4 - Multiperiod valuation and the CAPM
   Fabian Lutzenberger, Stefan Stöckl, Vasko Isakovic
Fuzzy Systems in Geopolitics and Disaster Management

Chair: Erik Kropat
Chair: Alexis Pasichny

1 - Preparation of Complex Landslide Simulation Results with Spatial Data Mining Methods for Decision Support
Erik Kropat, Eva Nuhn, Wolfgang Reinhardt, Stefan Pickl

2 - Fuzzy civilization-state model for system analysis of world geopolitics
Alexis Pasichny

3 - A concurrent neuro-fuzzy inference system for automotive service industry
Fehmi Evren Dinç, Yildiz Yulugkural, Zerrin Aladag
Recent Advances in Convex Optimization

Chair: Aharon Ben-Tal
Chair: Attila Gilanyi

1 - Iterative solution methods for a canonical dc programming problem
   Syuuiji Yamada, Tamaki Tanaka, Tetsuzo Tanino

2 - Revisiting the construction of gap functions for variational inequalities via conjugate duality
   Liana Cioban, Ernő Robert Csetnek

3 - Database for Convex Optimization
   Shriguru Nayak, Neha Bhatia, G. N. Srinivasa Prasanna

4 - An iterative algorithm for the reflexive optimal approximation solutions of matrix equations AXB+CYD=E
   Heming Sun
OR and the Arts

Chair: Vitaly Podobedov

1 - OR and Abstract Painting
   Vitaly Podobedov

2 - Optimization of inner operation of a museum to enhance the educational impact on visitors
   Katarina Simoncicova, Eva Kralova

3 - Composing counterpoint musical scores with variable neighborhood search
   Dorien Herremans, Kenneth Sörensen

4 - Ball motion inside symmetric surfaces, described by using special diagrams
   Lina Otradnova
Simulation Based Decision Support

Chair: Guido Siestrup

1 - Simulation approach for measuring benefits of cutting stock optimization with usable leftovers
Mihael Cesar, Luka Tomat, Miro Gradisar

2 - A risk management approach for logistics agglomerations
Guido Siestrup, Claudia Breuer, Hendrik Wildebrand, Hans-Dietrich Haasis
WD-26
Wednesday, 14:30-16:00
CC-A24

Multi-Criteria Decision Making and Applications 2

Chair: Mikhail Kuznetsov
Chair: King-Wah Pang

1 - Multi-criteria Internet Shopping Optimization Problem
   Jedrzej Musial, Jacek Blazewicz, Pascal Bouvry

2 - A hybrid decision making model for labor flexibility
   Erdem Aksakal, Metin Dagdeviren, Ihsan Yüksel

3 - A knowledge based decision support system for warehousing management to improve operating efficiency
   King-Wah Pang

Paper moved to session MC-40
Environmental Fuzzy Multi-Attribute Decision-Making in Integrated Wastewater Management
Hojjat Mianabadi, Mehrdad Mirabi, Erik Mostert, Mohammad Bagher Sharifi
Applications in Decision Making & Decision Analysis

Chair: Pascale Zarate
Chair: Fatima Dargam

1 - A decision making framework for a Colombian business group
   Julián Benavides, Felipe Henao

2 - Development of a territorial vulnerability indicator framework for cross-border risk analysis
   Tina Comes, Marjorie Vannieuwenhuyse, Frank Schultmann

3 - Requirements analysis and conceptual design of data warehouse
   Dragana Becejski-Vujaklija, Milena Panovic
Seismic Modeling with OR

Chair: Aysegul Askan
Chair: Gerhard-Wilhelm Weber

1 - Ensemble methods for classification of volcano - seismic signals
   Cindy Mora-Stock, Cristian Bravo

2 - An integrated model for disaster mitigation and response decisions
   Alper Döyen, Necati Aras, Gülay Barbarosoglu

3 - A data mining approach for modeling high-frequency spectral decay of ground motions for Northwestern Turkey
   Fatma Nurten Sisman, Onur Pekcan, Aysegul Askan

4 - Waveform tomography with numerical optimization techniques
   Aysegul Askan, Volkan Akcelik, Jacobo Bielak, Omar Ghattas
Optimization and Data Mining (II)

Chair: Minyoung Cho

1 - The application of neural networks and linear programming discriminant models on the file fragment classification problem
   Erich Wilgenbus, Hennie Kruger, Tiny Du Toit

2 - Clustering anthropometric data addressed to the clothing industry
   Teresa Leon, Guillermo Vinue, Guillermo Ayala, Sandra Alemany, Juan Domingo

3 - Fault Classification using Data Mining Technique for Semiconductor Process Monitoring
   Minyoung Cho, Jonghyuck Park, Jun Seok Kim, Sung-Shick Kim, Jun-Geol Baek
OR and Ethics II

Chair: Cristobal Miralles

1 - Identifying the upper age limit to extend screening for breast cancer in England and Wales
   Rachid Rafia, Alan Brennan, Jason Madan, Lynda Wyld, Karen Collins

2 - Multi-criteria decision making with criteria values estimated from survival data: a case study in heart failure
   Jing Zhao, Douwe Postmus, Hans Hillege

3 - Complexity of decision making with multiple stakeholders: a case study.
   Cristobal Miralles, Alysson Costa, Maria Antónia Carravilla
1 - Measuring the efficiency and productivity change in Global Telecom Operators
Chrysovaladis Prachalias, Rajiv Banker

2 - Returns to Scale and Incentive Regulation in Brazil Electricity Distribution Industry
Ana Lopes, Rajiv Banker

3 - Performance measurement in the marketing productivity in services. An application to the U.S. financial sector using stochastic frontier models
Hanns de la Fuente

4 - Efficiency evaluation and analysis of Third Party Logistics in Brazil
Mariana Almeida, Luis Oliveira
This paper deals with the efficiency evaluation and analysis of 44 Third Party Logistics working in Brazil, using Data Envelopment Analysis — DEA for this purpose. The DEA model used considers variable returns to scale, since the analyzed companies have diversified sizes, and oriented to maximize their outputs. The use of variable selection techniques was critical to reach a subset of variables with greater representativeness for the system. As the main practical result, it was possible to identify the best players, regarding the efficiency of production processes and the returns to scale.
1. Alternatives for Scripting in Conjunction with an Algebraic Modeling Language for Optimization
   *Robert Fourer*

2. CMPL - Coliop—Coin Mathematical Programming Language
   *Mike Steglich*
Recent Advances in Statistics

Chair: Pakize Taylan
Chair: Elcin Kartal Koc
Chair: Gerhard-Wilhelm Weber

1 - A simulation study to compare conditional and normalized residuals in diagnostic checking
   Mehmet Güray Ünsal, Resat Kasap

2 - Statistical Analysis of Narrative Sequences
   Fatma Selcen Phelps, William Guinee, Eugene Johnsen
Technological change and productivity: permanent features of population health

Chair: M. Harvey Brenner
Chair: Elena Andreeva

1 - Large-scale organisational downsizing and workers’ health during the global crisis of the last decade
   Elena Andreeva

2 - Macroeconomic influences on life expectancy in advanced industrialized countries
   M. Harvey Brenner

3 - Health policy amidst financial austerity — the case of Hungary
   Péter Mihályi
WD-37

Wednesday, 14:30-16:00

CC-Act

Operations Research in Health Care II

Chair: Sally Brailsford

1 - Combining Discrete Event, Agent Based and System Dynamics Simulation to explore the Health and Social Care implications of Age Related Macular Degeneration
   Joe Viana, Andrew Amos Channon, Sally Brailsford

2 - Modelling the dental workforce in Sri Lanka
   Sally Brailsford, Dileep de Silva

3 - Managing limited bed capacity at hospitals
   Burhaneddin Sandikci, Tom Best, Don Eisenstein, David Meltzer
Multiobjective Optimization and Water Management

Chair: Javier Cano
Chair: Angel Udias

1 - Pareto Data Mining based decision for Global Water Restoration Decision Process
Angel Udias, Andrés Redchuk, Javier Cano, Lorenzo Lgalbiati@gencat.cat

2 - A decision support system for the multiobjective management of the Kwanza river
Kiombo Jean Marie, Javier Cano, David Rios-Insua

Paper moved from session MD-33

3 - Role of carbon capture technologies in the Spanish industry in 2030 under a CO2 reduction scenario using the TIMES-Spain energy optimisation model
Diego García, Helena Cabal, Machteld Van Den Broek, Yolanda Lechón, Antonio Alonso-Ayuso

Paper moved to session MD-33

Multicriteria Decision Aid for Equitable Water Distribution Network
Jose Luis Castaño Cabrales, Angel Udias, David Rios-Insua, Javier Cano, Hocine Fellag
WD-39
Wednesday, 14:30-16:00
HH-Cousteau

Graph and Digraph Searching Games

Chair: Nancy Clarke

1 - On Constructive Characterization of Forbidden Minors for k-Searchable Graphs
   Oznur Yasar Diner

2 - LIFO-search on digraphs
   Paul Hunter

3 - Eternal Domination- being ever watchful
   Stephen Finbow
Modelling sustainable production systems

Chair: Francois Guerrin

1 - Modeling and prioritizing requirements for designing sustainable supply chains
   Anjali Awasthi, Zhonhua Zhang

2 - A fuzzy farming efficiency estimation model for agricultural development
   Tomas Balezentis, Alvydas Balezentis

3 - Integrating multidisciplinary knowledge into simulation models to organize organic wastes recycling in agriculture
   Francois Guerrin, Moussa NDienor, Heriniaina Ramahefarison, Virginie Parnaudeau, Jean-Marie Paillat
Applications of Control Theory in Dynamical Systems

Chair: Ioan Radu Morar

1 - A model to particles flow composed by two metastable potentials
   Elso Drigo Filho, Marcelo Tozo de Araujo

2 - The mechatronic system optimization with use of genetic programming
   Marian Klucik, Ladislav Jurisica, Anton Vitko, Peter Paszto, Jaroslav Hanzel

3 - Fault-tolerant Control Systems in Stability and Recovery control Of Damaged Aircraft
   M. Navabi, M. Radaei

4 - Modeling an Unmanned Aerial Vehicle (Quadrotor)
   Ioan Radu Morar, Ioan Nascu
Stochastic Modelling in Computational Biology and Environmental Sciences

Chair: Erik Kropat
Chair: Zeev (Vladimir) Volkovich
Chair: Gerhard-Wilhelm Weber

1 - Earthquake Scenario Reduction by Symmetry Reasoning
   Steven Prestwich

2 - Modelling the meteorological effects on air temperature for Konya city in Turkey: the approaches of quantile regression and quantile regression neural networks
   ?lkay Altindag, Nimet Yapici Pehlivan

3 - Stochastic optimization methods in change-point detection
   Tatiana Polushina, Georgy Sofronov

4 - A randomness test based on the Minimal Spanning Tree approach
   Zeev (Vladimir) Volkovich
Emerging applications in finance and insurance

Chair: Giorgio Consigli

1 - An application of institutional asset-liability management to a large P&C insurance company
   Giorgio Consigli, Vittorio Moriggia, Gaetano Iaquinta, Angelo Uristani
   
   *Paper moved to session TD-22*

2 - An Alternative Approach for Exponential Smoothing Method
   Ali Sabri Taylan, G¨uc ¸kan Yapar

3 - Multistage strategic asset allocation with alternative investments
   Angelo Uristani, Giorgio Consigli, Vittorio Moriggia

4 - Quadrangle Concept in Classification and Online Trading Algorithms
   Stan Uryasev, Peter Tsyurmasto
WD-44
Wednesday, 14:30-16:00
BW-Marble

Information and Intelligent Systems II

Chair: Igor Kabashkin
Chair: Hans Georg Zimmermann

1 - E-Commerce & m-Commerce: A Specific Integrated Platform
   David L. La Red Martínez, Valeria E. Uribe, Sofia J. Vallejos

2 - Text mining and visualization with self-organizing maps
   Pavel Stefanović, Olga Kurasova

3 - Design of architecture of embedded system for optimal reliability of complex system
   Igor Kabashkin

4 - Selecting Ore for an Iron Ore Mine
   Jim Everett
IBM Research Applications

Chair: Marco Laumanns

1. **Planning under Uncertainty — Case Study: Energy Cost Minimization for a Water Treatment and Distribution Network.**
   Susara van den Heever, Niall Brady, Olivier Verscheure, Kate Lehane

2. **Nonlinear optimization for decision problems in water distribution networks under uncertainty**
   Martin Mevissen

3. **An efficient way to find an optimal power series for charging electric vehicles**
   Jacint Szabo, Olivier Gallay, Olle Sundstroem

4. **Multi-Period Production Planning Under Non-Compliance Risk**
   Marco Laumanns, Alwin Haensel, Ban Kawas, Eleni Pratsini, Steven Prestwich, Catalin Stefan Tiseanu
IFORS Distinguished Lecture:
Professor Ralph E. Gomory

Chair: Dominique de Werra

1 - Forty Years of Corner Polyhedra
Ralph E. Gomory