

TECHNICAL PROGRAM

Wednesday, 9:00-10:30

■ WA-27

Wednesday, 9:00-10:30 - HFB|Audimax

Opening Ceremony and Plenary Lecture

Stream: Plenaries

Plenary session

Chair: *Natalia Kliewer*

Chair: *Ralf Borndörfer*

Chair: *Jan Fabian Ehmke*

1 - Green Logistics: Decision Analytics for Sustainable Transportation

Richard Eglese

Wednesday, 11:00-12:30

■ WB-01

Wednesday, 11:00-12:30 - WGS|101

Methods for Robustness

Stream: Optimization under Uncertainty

Parallel session

Chair: *Fabian Mies*

1 - Choosing a set of solutions to hedge against the worst case

André Chassein

2 - Globalized Gamma-Robustness

Andreas Bärmann, Christina Büsing, Lena Maria Hupp, Frauke Liers, Manu Kapolke

3 - Blending robust and stochastic optimization of two-stage problems

Fabian Mies, Britta Peis, Andreas Wierz

■ WB-02

Wednesday, 11:00-12:30 - WGS|102

Modeling Systems I

Stream: Software Applications and Modelling Systems

Parallel session

Chair: *Ingmar Steinzen*

Chair: *Jens Peter Kempkes*

1 - Optimizing in the Cloud - Deploying Optimization Models on the Cloud with Web Services REST API's

Bjarni Kristjansson

2 - Cloud Strategies for Optimization Modeling Software

Robert Fourer

3 - Solving routing and scheduling problems using LocalSolver

Julien Darlay

4 - OPTANO Modeling

Jens Peter Kempkes, Lars Beckmann

■ WB-03

Wednesday, 11:00-12:30 - WGS|103

Location Planning

Stream: Logistics and Freight Transportation

Parallel session

Chair: *Tim Kammann*

1 - Multi-objective capacitated facility location problem: A case study of Tehran earthquake

Mahdi Shavarani

2 - 2-Echelon Optimization Model for Urban E-Grocery Operations

Tim Kammann, Agathe Kleinschmidt, Sören Schindler, Max Leyerer, Marc-Oliver Sonneberg, Michael H. Breitner

3 - Determining the influence of truck appointment systems at container terminals on truck arrival patterns of related logistics nodes

Ann-Kathrin Lange, Anne Schwientek, Carlos Jahn

■ WB-04

Wednesday, 11:00-12:30 - WGS|104

Graphs and Complexity

Stream: Graphs and Networks
Parallel session

Chair: Stephan Schwartz

1 - A Graph Theoretic Approach to Solve Special Knapsack Problems in Polynomial Time

Carolin Rehs, Frank Gurski

2 - The Graph Segmentation Problem

Stephan Schwartz, Leonardo Balestrieri, Ralf Borndörfer

■ WB-05

Wednesday, 11:00-12:30 - WGS|104a

Location of Charging Stations for Electric Vehicles

Stream: Traffic, Mobility and Passenger Transportation
Parallel session

Chair: Brita Rohrbeck

1 - Decision Support for Location Planning of Electric Vehicle Recharging Infrastructure

Paul Göpfert, Stefan Bock

2 - Location Planning of E-Taxi Charging Stations

Gregor Godbersen, Rainer Kolisch

3 - Location Planning of Charging Stations for Electric City Buses Considering Battery Ageing Effects

Brita Rohrbeck, Kilian Berthold, Felix Hettich

■ WB-06

Wednesday, 11:00-12:30 - WGS|105

Graphs and Modeling Techniques

Stream: Graphs and Networks
Parallel session

Chair: Jonas Schweiger

1 - Atherosclerosis development as a complex biological phenomenon studied using Petri nets

Kaja Chmielewska, Dorota Formanowicz, Piotr Formanowicz

2 - Strong convex relaxations for the pooling problem

Jonas Schweiger, Claudia D'Ambrosio, Jeff Linderoth, Jim Luedtke

3 - The Most Reliable Flight Itinerary Problem

Jan Fabian Ehmke, Michael Redmond, Ann Campbell

■ WB-07

Wednesday, 11:00-12:30 - WGS|106

New Approaches for Combinatorial Optimization Problems in Manufacturing (i)

Stream: Discrete and Integer Optimization
Parallel session

Chair: Philipp Hungerländer

Chair: Anja Fischer

1 - New Exact Approaches and Heuristics for Row Facility Layout Problems

Kerstin Maier, Philipp Hungerländer

2 - Extensions of the Double Row Facility Layout Problem

Mirko Dahlbeck, Anja Fischer, Thomas Krüger, Uwe Bracht

3 - Optimisation-driven Heuristics

Christina Burt

■ WB-08

Wednesday, 11:00-12:30 - WGS|107

Railway Timetabling

Stream: Traffic, Mobility and Passenger Transportation
Parallel session

Chair: Christian Liebchen

1 - Structure-based Decomposition for Pattern-Detection for Railway Timetables

Stanley Schade, Thomas Schlechte, Jakob Witzig

2 - Timetable Sparsification by Rolling Stock Rotation Optimization

Boris Grimm, Markus Reuther, Stanley Schade, Thomas Schlechte

3 - On the Benefit of Preprocessing And Heuristics for Periodic Timetabling

Christian Liebchen

■ WB-09

Wednesday, 11:00-12:30 - WGS|108

Recent Developments in Column Generation (i)

Stream: Discrete and Integer Optimization
Parallel session

Chair: Matthias Walter

1 - Modular Detection of Model Structure in Integer Programming*Michael Bastubbe, Marco Lübbecke***2 - Learning when to use a decomposition***Markus Kruber, Marco Lübbecke, Axel Parmentier***3 - Refining column generation subproblems using Benders' cuts***Jonas Witt, Marco Lübbecke, Stephen Maher***■ WB-10***Wednesday, 11:00-12:30 - WGS|108a***Integer Linear Programming (i)**

Stream: Discrete and Integer Optimization

*Parallel session*Chair: *Gennadiy Averkov***1 - Integrality Gaps of Integer Knapsack Problems: Bounds and Expected Value***Iskander Aliev***2 - Discrete quantitative Helly numbers***Stefan Weltge, Gennadiy Averkov, Bernardo González Merino, Matthias Schymura***3 - Approximation of corner polyhedra with families of intersection cuts***Joseph Paat***■ WB-11***Wednesday, 11:00-12:30 - WGS|005***Liner Shipping Optimization I**

Stream: Logistics and Freight Transportation

*Parallel session*Chair: *Kevin Tierney***1 - The Flexible Ship Loading Problem***Dario Pacino***2 - Stowage planning: A benchmark and a novel heuristic***Rune Larsen, Dario Pacino***3 - The Stochastic Liner Shipping Fleet Repositioning Problem with Uncertain Container Demands***Stefan Kuhleemann, Kevin Tierney***■ WB-12***Wednesday, 11:00-12:30 - WGS|BIB***Business Track I**

Stream: Business Track

*Parallel session*Chair: *Michael Beck***1 - Introduction of optimization systems in public transport companies***Michael Beck***2 - Impact of efficient algorithm implementation on the performance of heuristic optimization***Michael Feichtenschlager***3 - Research in operations - the aircraft maintenance, repair and overhaul market***Michael Frank***■ WB-13***Wednesday, 11:00-12:30 - RVH|I***Forecasting Neural Network Specification**

Stream: Business Analytics, Artificial Intelligence and Forecasting

*Parallel session*Chair: *Sven F. Crone***1 - Visually Supported Parameter Tuning and Feature Engineering for Artificial Neural Networks***Dennis Eilers, Cornelius Köpp, Michael H. Breitner***2 - Learning uncertainty of predictions by neural networks with regression***Pavel Gurevich, Hannes Stuke***■ WB-14***Wednesday, 11:00-12:30 - RVH|II***Class and Score Prediction**

Stream: Business Analytics, Artificial Intelligence and Forecasting

*Parallel session*Chair: *Thomas Setzer***1 - Consumer's sport preference as a predictor for his/her response to brand personality***Friederike Paetz, Regina Semmler-Ludwig***2 - Credit Scoring based on Neural Networks***Ralph Grothmann, Hans Georg Zimmermann***3 - Customer Churn Prediction using Temporal Patterns in Support Contact Data***Katerina Shapoval***■ WB-15***Wednesday, 11:00-12:30 - RVH|III***Modelling and Simulation in the Service Industry**

Stream: Simulation and Statistical Modelling

*Parallel session*Chair: *Lars Ostmeier*

- 1 - **A case study of simulating the surgical process flow in an Indian healthcare setting**
Rakesh Verma, Sudhanshu Singh
- 2 - **Toward an Agent-based Simulation of Incentives and Disincentives for Sharing Frailty-Related Information in Perioperative Care**
Daniel Furstenuau, Felix Balzer, Martin Gersch, Claudia Spies
- 3 - **Evaluating intra-day quantity risk of wind power production**
Lars Ostmeier, Sven Kolkmann, Christoph Weber

■ WB-16

Wednesday, 11:00-12:30 - RBM|1102

Finance I

Stream: Finance
Parallel session

Chair: *Michael H. Breitner*

- 1 - **Decoupled Net Present Value - An Alternative to the Long-Term Asset Value in the Evaluation of Ship Investments?**
Philipp Schrader, Jan-Hendrik Piel, Michael H. Breitner
- 2 - **The Innovator's Dilemma revisited: Investment Timing, Capacity Choice, and Product Life Cycle under Uncertainty**
Stefan Kupfer, Elmar Lukas

■ WB-17

Wednesday, 11:00-12:30 - RBM|2204

Data-driven Healthcare Services

Stream: Health Care Management
Parallel session

Chair: *Melanie Reuter-Oppermann*

- 1 - **Data-based Location, Relocation and Dispatching Approaches for the German EMS System**
Melanie Reuter-Oppermann
- 2 - **Semantic Data Verification by Means of Human-Readable N3 Rules**
Tobias Weller, Maria Maleshkova
- 3 - **Appointment planning data - between desire and reality**
Anne Zander, Melanie Reuter-Oppermann, Stefan Nickel

■ WB-18

Wednesday, 11:00-12:30 - RBM|2215

Scheduling and Sequencing

Stream: Project Management and Scheduling
Parallel session

Chair: *Stefan Bock*

- 1 - **Tabu search algorithms for scheduling tasks with ready times on a single machine with limited availability**
Jakub Pietruczuk, Piotr Formanowicz
- 2 - **A branch and bound procedure for a scheduling problem with fixed delivery departure dates**
David Bachtenkirch, Stefan Bock
- 3 - **A pseudo-polynomial solution approach for optimally solving the acyclic TSP with multiple congestion scenarios and soft due date restrictions**
Stefan Bock

■ WB-19

Wednesday, 11:00-12:30 - RBM|3302

Production and Service Networks

Stream: Production and Operations Management
Parallel session

Chair: *Tristan Becker*

- 1 - **Comprehensive MRP-concept for complex products in global production and supplying networks**
Wilmjakob Herlyn
- 2 - **Service Network Design: Competing on Convenient Locations and Responsive Service Processes**
Pratibha Saini, Cornelia Schoen, Fabian Strohm
- 3 - **Tactical Planning of Modular Production Networks With Reconfigurable Plants**
Tristan Becker, Stefan Lier, Brigitte Werners

■ WB-20

Wednesday, 11:00-12:30 - RBM|4403

Closed Loop Supply Chains

Stream: Supply Chain Management
Parallel session

Chair: *Patricia Rogetzer*

- 1 - **An Integrated Approach for Assessment of Green Suppliers with Interval Type-2 Fuzzy Sets**
Ahmet Çalık, Abdullah Yıldızbaşı, Turan Paksoy, Alexander Kumpf
- 2 - **Coordination of grading in reverse supply chains**
Gerrit Schumacher, Moritz Fleischmann
- 3 - **Sustainable sourcing with recycled materials: A contribution towards circular economy**
Patricia Rogetzer, Lena Silbermayr, Werner Jammerneegg

■ WB-21

Wednesday, 11:00-12:30 - RBM|4404

Technologies of Artificial Creativity

Stream: OR in Engineering
Parallel session

Chair: *Ulf Lorenz*

1 - Beam structure Optimization for Additive Manufacturing*Christian Reintjes, Michael Hartisch, Ulf Lorenz***2 - Modeling variants for the Multiple Traveling Salesmen Problem with Moving Targets***Anke Stieber***3 - Domain Specific Pre-Analysis and Generation of Optimization Problems***Benjamin Saul, Wolf Zimmermann***■ WB-22***Wednesday, 11:00-12:30 - HFB|A***Energy and Mobility**

Stream: Energy and Environment

*Parallel session*Chair: *Magnus Fröhling***1 - Driven by change? EV drivers' acceptance and perceived productivity at Deutsche Post DHL***Stefanie Wolff, Reinhard Madlener***2 - Airline fleet planning with CO2 emission targets under consideration of retrofit options***Karsten Kieckhäfer, Christoph Müller, Thomas Spengler***■ WB-23***Wednesday, 11:00-12:30 - HFB|B***CANCELLED: Game Theory and Economics**

Stream: Game Theory and Experimental Economics

*Parallel session*Chair: *Mark Francis Rogers***■ WB-24***Wednesday, 11:00-12:30 - HFB|C***GOR Dissertation Prize**

Stream: Awards

*Parallel session*Chair: *Peter Letmathe***1 - Anticipation in Dynamic Vehicle Routing***Marlin Wolf Ulmer***2 - Game-theoretic Approaches to Allocation Problems in Cooperative Routing***Igor Kozeletskyi***3 - Methodological Advances and New Formulations for Bilevel Network Design Problems***Pirmin Fontaine***4 - Handling Critical Tasks Online: Deadline Scheduling and Convex-Body Chasing***Kevin Schewior***■ WB-25***Wednesday, 11:00-12:30 - HFB|D***Market Design, Bidding and Market Zones**

Stream: Energy and Environment

*Parallel session*Chair: *Dominik Möst*Chair: *Philipp Hauser***1 - Dynamic programming approach for bidding problems on day-ahead markets***Jérôme De Boeck, Martine Labbé, Étienne Marcotte, Patrice Marcotte, Gilles Savard***2 - Comparative exemplary application of different zonal configuration algorithms for the case of market splitting in Germany***Dirk Hladik, Dominik Möst***3 - Evaluating alternative market designs in electricity markets: a mixed-integer multilevel optimization model and global solution techniques***Thomas Kleinert, Frauke Liers, Martin Schmidt***■ WB-26***Wednesday, 11:00-12:30 - HFB|Senat***Bargaining (i)**

Stream: Game Theory and Experimental Economics

*Parallel session*Chair: *Thomas Neumann***1 - An extended fuzzy approach to multicriteria modelling of bilateral bargaining***Tobias Volkmer, Olga Metzger, Thomas Spengler***2 - Bargaining over waiting time in ultimatum game experiments***Roger Berger***3 - An Experimental Comparison of Ultimatum Bargaining Over Positive, Negative and Mixed Outcomes***Thomas Neumann, Stephan Schosser, Bodo Vogt*

Wednesday, 13:30-15:00

■ WC-01

Wednesday, 13:30-15:00 - WGS|101

Stochastic Integer Programs

Stream: Optimization under Uncertainty
Parallel session

Chair: Tanya Gonser

1 - Some ideas on integrating lift-and-project cuts into decomposition methods for solving two-stage stochastic programming problems with binary first-stage variables

Pavlo Glushko, Achim Koberstein, Csaba Fabian

2 - Reliable single allocation hub location problem under hub breakdowns

Nicolas Kämmerling, Borzou Rostami, Christoph Buchheim, Uwe Clausen

3 - A Branch-and-Bound Approach for Multi-Stage Stochastic Mixed-0-1 Programs

Tanya Gonser, Stefan Nickel, Francisco Saldanha-da-Gama, Iris Heckmann

■ WC-02

Wednesday, 13:30-15:00 - WGS|102

Modeling Systems II

Stream: Software Applications and Modelling Systems
Parallel session

Chair: Mike Steglich

1 - Building and Solving Optimization Models with Python

Kostja Siefen

2 - Embedded Code in GAMS - Using Python as an Example

Lutz Westermann

3 - Optimization Modelling for Data Scientists in IBM Data Science Experience

Sebastian Fink, Hans Schlenker

4 - Implementing and solving decision problems with SolverStudio/Cmpl and CmplServer

Mike Steglich

■ WC-03

Wednesday, 13:30-15:00 - WGS|103

Cancelled: Terminal Operations

Stream: Logistics and Freight Transportation
Parallel session

Chair: Ann-Kathrin Lange

■ WC-04

Wednesday, 13:30-15:00 - WGS|104

Online Optimization

Stream: Graphs and Networks
Parallel session

Chair: Yann Disser

1 - Tight Competitive Analysis for Online TSP on the Line

Miriam Schlöter, Yann Disser, Jan Hackfeld, Christoph Hansknecht, Kevin Schewior, Leen Stougie, Antje Bjelde, Julie Meißner, Maarten Lipmann

2 - Anonymous Graph Exploration with Binoculars

Jérémie Chalopin

3 - Online bipartite matching in offline time

Anna Zych-Pawlewicz, Bartłomiej Bosek, Dariusz Leniowski, Piotr Sankowski

■ WC-05

Wednesday, 13:30-15:00 - WGS|104a

Car Pooling & Sharing

Stream: Traffic, Mobility and Passenger Transportation
Parallel session

Chair: Tai-yu Ma

1 - Carpool formation along high-occupancy vehicle lanes

Stefan Schwerdfeger, Nils Boysen, Dirk Briskorn, Konrad Stephan

2 - Optimal Integration of Autonomous Vehicles in Car Sharing

Marcus Kaiser

3 - Dynamic bi-modal ridesharing using optimal passenger-vehicle assignments

Tai-yu Ma

■ WC-06

Wednesday, 13:30-15:00 - WGS|105

Selected Topics

Stream: Graphs and Networks
Parallel session

Chair: Stephan Westphal

1 - On a technique of finding running tracks of specific length in a road network

David Willems, Stefan Ruzika, Oliver Zehner

2 - A simulation-based framework for competitive analysis of online scheduling problems

Martin Dahmen

■ WC-07

Wednesday, 13:30-15:00 - WGS|106

Various Aspects of Discrete Models

Stream: Discrete and Integer Optimization
Parallel session

Chair: *Steffen Goebbels*

- 1 - **Mathematische Optimierung in der Schule**
Alexander Schulte
- 2 - **A Linear Program for Matching Photogrammetric Point Clouds with CityGML Building Models**
Steffen Goebbels, Regina Pohle-Fröhlich, Philipp Kant

■ WC-08

Wednesday, 13:30-15:00 - WGS|107

Public Transportation Planning 1

Stream: Traffic, Mobility and Passenger Transportation
Parallel session

Chair: *Anita Schöbel*

- 1 - **Optimizing the Line System of Karlsruhe**
Ralf Borndörfer, Marika Karbstein, Petra Strauß
- 2 - **A Local Search Heuristic for Integrated Train Shunting and Service Scheduling**
Roel van den Broek, Han Hoogeveen, Marjan van den Akker
- 3 - **A heuristic for integrated public transportation planning**
Anita Schöbel, Julius Pätzold, Philine Schiewe, Alexander Schiewe

■ WC-09

Wednesday, 13:30-15:00 - WGS|108

Travelling and Shipping

Stream: Discrete and Integer Optimization
Parallel session

Chair: *Achim Hildenbrandt*

- 1 - **A modified Benders method for the single and multiple allocation p-hub median problem**
Hamid Mokhtar, Mohan Krishnamoorthy, Andreas Ernst
- 2 - **Variants of the Traveling Salesman Problem with additional ordering constraints**
Achim Hildenbrandt

■ WC-10

Wednesday, 13:30-15:00 - WGS|108a

New Solution Approaches for Applications from Real-World Projects (i)

Stream: Discrete and Integer Optimization
Parallel session

Chair: *Anja Fischer*

- 1 - **A comparison of reinforcement learning and heuristics for the Dynamic Container Relocation Problem**
Paul Alexandru Bucur, Philipp Hungerländer
- 2 - **A Mixed-Integer Linear Program for the Traveling Salesman Problem with Structured Time Windows**
Christian Truden, Philipp Hungerländer
- 3 - **On the Slot Optimization Problem in On-Line Vehicle Routing**
Philipp Hungerländer, Andrea Rendl, Christian Truden

■ WC-11

Wednesday, 13:30-15:00 - WGS|005

Liner Shipping Optimization II

Stream: Logistics and Freight Transportation
Parallel session

Chair: *Stefan Guericke*

- 1 - **Towards Dynamic Pricing in Liner Shipping with Accurate Vessel Capacity Models**
Mai Ajspur, Rune Jensen
- 2 - **Uptake Management in Liner Shipping - Industry Challenges and a Solution Approach**
Stefan Guericke

■ WC-12

Wednesday, 13:30-15:00 - WGS|BIB

Business Track II

Stream: Business Track
Parallel session

Chair: *Alexander Bradler*

- 1 - **Strategic network analytics for the postal industry**
Patrick Briest, Ingmar Steinzen
- 2 - **Delivering on delivery: Optimisation and the future of vehicle routing**
Adam West, Paul Hart, Christina Burt
- 3 - **User-centered Smart Data - Decision Analytics for Digital Engineering**
Alexander Bradler, Alexander Paar, Stephan Blankenburg

- 4 - **Designing and optimizing an LNG supply chain using LocalSolver**
Clément Pajean

■ WC-13

Wednesday, 13:30-15:00 - RVH|I

Forecasting Energy and Commodities

Stream: Business Analytics, Artificial Intelligence and Forecasting
Parallel session

Chair: Ralph Grothmann
Chair: Sven F. Crone

- 1 - **Short-term zero flow forecasting in gas networks**
Milena Petkovic
- 2 - **Wind power forecasting using Gaussian process state-space models**
Tobias Jung
- 3 - **Forecasting supplies and demands in gas networks**
Inken Gamrath

■ WC-14

Wednesday, 13:30-15:00 - RVH|II

Analytics in Retail and Digital Commerce I

Stream: Business Analytics, Artificial Intelligence and Forecasting
Parallel session

Chair: Thomas Setzer

- 1 - **Potential Benefits of User Rankings for Predictions of Booksellings**
Nicole Reuss, Klaus Ambrosi
- 2 - **Customer segmentation and market basked analysis for an electronics retailer using machine learning and optimisation methods**
Hlynur Stefánsson, Júlíus Pétur Guðjohnsen, Sigurður Jónsson, Eyjolfur Asgeirsson
- 3 - **Efficiency Analysis of Migros Retail Stores in Turkey Using Data Envelopment Analysis**
Birol Yüceoglu, Işıl Öztürk, Murat Çelebi

■ WC-15

Wednesday, 13:30-15:00 - RVH|III

Advances in Modelling and Simulation Methodologies

Stream: Simulation and Statistical Modelling
Parallel session

Chair: Zhengyu Wang

- 1 - **Galerkin Method for Dynamic Nash Equilibrium Problem with Shared Constraints**
Zhengyu Wang, Stefan Wolfgang Pickl

- 2 - **Hybrid Agent-Based Modeling (HABM) - A Formalism for Combining Agent-Based Modeling and Simulation, Discrete Event Simulation, and System Dynamics**
Joachim Block

- 3 - **Regulating the degree of conservatism: An error flexible single step approach to multiple testing**
Christina Bartenschlager, Jens Brunner

■ WC-16

Wednesday, 13:30-15:00 - RBM|1102

Finance II

Stream: Finance
Parallel session

Chair: Michael H. Breitner

- 1 - **A Generalization for the Duration concepts**
Marius Radermacher
- 2 - **Enhancing the wisdom of the crowd - evidence from social trading**
Christopher Helm, Martin Rohleder
- 3 - **Improving the recovery rate of unsecured debt in multistep workout processes**
Johannes Kriebel, Kevin Yam

■ WC-17

Wednesday, 13:30-15:00 - RBM|2204

Staff Scheduling

Stream: Health Care Management
Parallel session

Chair: Jens Brunner

- 1 - **Duty Rostering for Physicians at a Department of Orthopedics and Trauma Surgery**
Clemens Thielen
- 2 - **Robust Cyclic Apprenticeship Scheduling with an Application in Resident Scheduling**
Sebastian Kraul, Jens Brunner
- 3 - **A Column Generation Approach to Flexible Nurse Scheduling**
Jan Schoenfelder, Markus Seizinger

■ WC-18

Wednesday, 13:30-15:00 - RBM|2215

Scheduling on Parallel Machines

Stream: Project Management and Scheduling
Parallel session

Chair: Marcin Zurowski

1 - Runway Scheduling under Consideration of Winter Operations*Maximilian Pohl, Rainer Kolisch***2 - Explicit modelling of multiple intervals in a constraint generation procedure for multiprocessor scheduling***Emil Karlsson, Elina Rönnberg***3 - Scheduling jobs and maintenance activities subject to job-dependent machine deteriorations***Liliana Grigoriu, Dirk Briskorn***4 - Preemptive scheduling of jobs with a learning effect on two parallel machines***Marcin Zurowski***■ WC-19***Wednesday, 13:30-15:00 - RBM|3302***Production and Service Networks II***Stream: Production and Operations Management
Parallel session**Chair: Foad Ghadimi***1 - Overtime planning and safety stock placement in production networks***Tarik Aouam***■ WC-20***Wednesday, 13:30-15:00 - RBM|4403***Supply Chain Inventories***Stream: Supply Chain Management
Parallel session**Chair: Christopher Grob***1 - Optimal Randomized Ordering Policies for a Capacitated Two-Echelon Distribution Inventory System***Taher Ahmadi***2 - Window Fill Rate with Compound Arrival and Assembly Time***Michael Dreyfuss***3 - A solution procedure for joint optimization of reorder points in n-level distribution networks using (R,Q) order policies***Christopher Grob, Andreas Bley, Konrad Schade***■ WC-21***Wednesday, 13:30-15:00 - RBM|4404***Optimization of Technical Systems***Stream: OR in Engineering
Parallel session**Chair: Lena Charlotte Altherr***1 - Energy efficient design of a decentralized fluid system by mixed integer nonlinear programming***Philipp Leise, Lena Charlotte Altherr, Peter Pelz***2 - Product Family Design Optimization using Model Based Engineering Techniques***David Stenger, Tankred Mueller, Lena Charlotte Altherr, Peter Pelz***3 - How Do Structural Designs Affect the Economic Viability of Offshore Wind Turbines? An Interdisciplinary Simulation Approach***Clemens Huebler, Jan-Hendrik Piel, Raimund Rolfes, Michael H. Breitner***■ WC-22***Wednesday, 13:30-15:00 - HFB|A***MCDM 1: Complexity and Special Techniques***Stream: Decision Theory and Multiple Criteria Decision Making**Parallel session**Chair: Kathrin Klamroth***1 - The Multiobjective Shortest Path Problem is NP-hard, or is it?***Fritz Bökler***2 - Optimization of Bi-Objective TSP***Thomas Stidsen, Kim Allan Andersen, Kim Allan Andersen***3 - Multiobjective optimization for complex systems***Kathrin Klamroth, Stefan Ruzika, Margaret Wiecek***■ WC-23***Wednesday, 13:30-15:00 - HFB|B***Game Theory and Optimization***Stream: Game Theory and Experimental Economics
Parallel session**Chair: Mark Francis Rogers***1 - An Efficient and Truthful Algorithm for Fair Scheduling on Related Machines***Ruini Qu, Bo Chen***2 - How Additional Exit Affect the European Union's Power Distribution***Mark Francis Rogers, Dóra Gréta Petróczy, László Kóczy***■ WC-24***Wednesday, 13:30-15:00 - HFB|C***GOR Master Thesis Prize***Stream: Awards
Parallel session**Chair: Stefan Ruzika*

- 1 - **Stable Clusterings and the Cones of Outer Normals**
Felix Happach
- 2 - **Solving the Time-Dependent Shortest Path Problem on Airway Networks Using Super-Optimal Wind**
Adam Schienle
- 3 - **The two dimensional bin packing problem with side constraints**
Markus Seizinger

■ WC-25

Wednesday, 13:30-15:00 - HFB|D

Gas Networks and Market

Stream: Energy and Environment
Parallel session

Chair: *Dominik Möst*
Chair: *Philipp Hauser*

- 1 - **Benefits and Limitations of Simplified Transient Gas Flow Formulations**
Felix Hennings, Tom Streubel
- 2 - **The Value of Diversified Infrastructure in the European Natural Gas Market Using Chance Constrained Programming**
Philipp Hauser

■ WC-26

Wednesday, 13:30-15:00 - HFB|Senat

Automated Negotiations in Logistics (i)

Stream: Game Theory and Experimental Economics
Parallel session

Chair: *Tobias Buer*

- 1 - **Improving a Genetic Algorithm-based Mechanism for Allocating Requests in Transport Coalitions**
Jonathan Jacob, Tobias Buer
- 2 - **A combinatorial double auction for exchanging empty marine containers**
Tobias Buer
- 3 - **Agent-driven versus mediator-driven contract proposal in automated negotiations**
Gabriel Franz Guckenbiehl, Tobias Buer

Wednesday, 15:30-16:15

■ WD-01

Wednesday, 15:30-16:15 - WGS|101

Cancelled: Semi-Plenary Panos M. Pardalos

Stream: Semi-Plenaries
Semi-plenary session

Chair: *Stefan Wolfgang Pickl*

■ WD-22

Wednesday, 15:30-16:15 - HFB|A

Presentation by the GOR Science Award Winner

Stream: Semi-Plenaries
Semi-plenary session

Chair: *Karl Inderfurth*

- 1 - **Presentation by the GOR Science Award Winner (Name: to be announced!)**
Karl Inderfurth

■ WD-23

Wednesday, 15:30-16:15 - HFB|B

Semi-Plenary Dirk Christian Mattfeld

Stream: Semi-Plenaries
Semi-plenary session

Chair: *Jan Fabian Ehmke*

- 1 - **Models and Optimization in Shared Mobility Systems**
Dirk Christian Mattfeld

■ WD-24

Wednesday, 15:30-16:15 - HFB|C

Semi-Plenary Marco Lübbecke

Stream: Semi-Plenaries
Semi-plenary session

Chair: *Thorsten Koch*

- 1 - **Optimization meets Machine Learning**
Marco Lübbecke

■ WD-25

Wednesday, 15:30-16:15 - HFB|D

Semi-Plenary Martin Bichler

Stream: Semi-Plenaries
Semi-plenary session

Chair: *Andreas Fink*

1 - Market Design: A Linear Programming Approach
Martin Bichler

Wednesday, 16:30-18:00

■ WE-01

Wednesday, 16:30-18:00 - WGS|101

Robust Combinatorial Optimization

Stream: Optimization under Uncertainty

Parallel session

Chair: *Sven Krumke*

1 - A Robust Approach to Single-Allocation Hub Location Problems with Uncertain Weights.

Jannis Kurtz

2 - Strategic and operational resource planning for emergency doctors

Manuel Streicher, Sven Krumke, Eva Schmidt

3 - An Approximate Dynamic Programming Based Heuristic for the Stochastic Lot-Sizing Problem in Re-manufacturing Systems

Sedat Belbag, Mustafa Çimen, Mehmet Soysal, Armagan Tarim

■ WE-02

Wednesday, 16:30-18:00 - WGS|102

Optimization Software

Stream: Software Applications and Modelling Systems

Parallel session

Chair: *Ulf Lorenz*

1 - Simheuristics and Learnheuristics: extending metaheuristics in stochastic and dynamic scenarios

Angel A. Juan, Javier Faulin, Laura Calvet, Juan-Ignacio Latorre-Biel, Lorena Reyes-Rubiano

2 - Biased Randomization Procedures in Metaheuristics to Solve Stochastic Combinatorial Problems in Transportation and Logistics

Javier Faulin, Angel A. Juan, Adrian Serrano, Lorena Reyes-Rubiano, Juan-Ignacio Latorre-Biel

3 - Yasol: An open-source solver for Quantified Integer Program problems

Ulf Lorenz, Michael Hartisch

■ WE-03

Wednesday, 16:30-18:00 - WGS|103

Vehicle routing - Exact Methods

Stream: Logistics and Freight Transportation

Parallel session

Chair: *Taieb Mellouli*

1 - Multi-Commodity Two-Echelon Vehicle Routing Problem with Time Windows

Fardin Dashty Saridarq, Nico Dellaert, Tom van Woensel, Teodor Gabriel Crainic

- 2 - **Vehicle Scheduling vs. Vehicle Routing: Efficient network flow-based mathematical models and contrasts in structure and practical requirements**
Taieb Mellouli

■ WE-04

Wednesday, 16:30-18:00 - WGS|104

Confluence of Discrete and Continuous Network Optimization

Stream: Graphs and Networks

Parallel session

Chair: *Andreas Karrenbauer*

- 1 - **Near-Optimal Approximate Shortest Paths and Transshipment in Distributed and Streaming Models**
Ruben Becker, Andreas Karrenbauer, Sebastian Krinninger, Christoph Lenzen
- 2 - **Phase unwrapping for SAR interferometry using undirected shortest transshipments**
Andreas Karrenbauer
- 3 - **Two Results on Slime Mold Computations**
Pavel Kolev, Ruben Becker, Vincenzo Bonifaci, Andreas Karrenbauer, Kurt Mehlhorn

■ WE-05

Wednesday, 16:30-18:00 - WGS|104a

Planning and Scheduling in Air Transportation

Stream: Traffic, Mobility and Passenger Transportation

Parallel session

Chair: *Lucian Ionescu*

- 1 - **Airport Capacity Extension, Fleet Planning, and Optimal Aircraft Scheduling in a Four-Level Market Model: On the Effects of Market Regulations**
Martin Weibelzahl, Mathias Sirvent
- 2 - **The Flight Planning Problem with Variable Speed**
Marco Blanco, Ralf Borndörfer, Nam Dung Hoang, Thomas Schlechte
- 3 - **Lessons learned on Robust Efficiency of Airline Crew Schedules**
Lucian Ionescu, Natalia Kliewer

■ WE-06

Wednesday, 16:30-18:00 - WGS|105

Cycle Packings

Stream: Graphs and Networks

Parallel session

Chair: *Peter Recht*

- 1 - **Fullerene - Relationship between Maximum Cycle Packing and Independence Set of Dual Graph**
Stefan Stehling

- 2 - **On Maximum Cycle Packings in Halin Graphs using Wheel Decomposition**
Christin Otto

- 3 - **Spontaneous postman problems**
Peter Recht

■ WE-07

Wednesday, 16:30-18:00 - WGS|106

Foundations of Linear and Integer Programming (i)

Stream: Discrete and Integer Optimization

Parallel session

Chair: *Stefan Weltge*

- 1 - **Beyond TU-ness: A Strongly Polynomial Algorithm for Bimodular Integer Linear Programming**
Stephan Artmann, Robert Weismantel, Rico Zenklusen
- 2 - **On the number of distinct rows of a matrix with bounded sub-determinant**
Christoph Glanzer, Robert Weismantel, Rico Zenklusen
- 3 - **A polynomial algorithm for linear problems given by separation oracles**
Sergei Chubanov

■ WE-08

Wednesday, 16:30-18:00 - WGS|107

Public Transportation Planning 2

Stream: Traffic, Mobility and Passenger Transportation

Parallel session

Chair: *Christian Puchert*

- 1 - **Demand-Driven Line Planning with Selfish Routing**
Malte Renken, Amin Ahmadi Digebsara, Ralf Borndörfer, Guvenc Sahin, Thomas Schlechte
- 2 - **Traffic management heuristics for bidirectional line segments on double-track railway lines**
Norman Weik, Stephan Zieger, Nils Nießen
- 3 - **Detecting, Interpreting and Exploiting Structures in Integrated Public Transport Planning Problems**
Christian Puchert, Marco Lübbecke, Philine Schiewe, Anita Schöbel

■ WE-09

Wednesday, 16:30-18:00 - WGS|108

Discrete Optimization by Semidefinite Methods (i)

Stream: Discrete and Integer Optimization

Parallel session

Chair: *Angelika Wiegele*

- 1 - **A Modified Bundle Method for SDP with Exact Subgraph Constraints**
Elisabeth Gaar, Malwina Duda, Franz Rendl
- 2 - **Solving Extended Single Row Facility Layout Problems Using a Spectral Bundle Method**
Anja Fischer, Mirko Dahlbeck, Frank Fischer
- 3 - **DADAL - Improving Alternating Direction Augmented Lagrangian Algorithm for SDP by a Dual Step**
Angelika Wiegele, Marianna De Santis, Franz Rendl

■ WE-10

Wednesday, 16:30-18:00 - WGS|108a

Scheduling and Resource Management under Uncertainty

Stream: Discrete and Integer Optimization
Parallel session

Chair: *Nicole Megow*

- 1 - **The Itinerant List Update Problem**
Kevin Schewior, Neil Olver, Kirk Pruhs, René Sitters, Leen Stougie
- 2 - **Submodular Secretary Problems: Cardinality, Matching, and Linear Constraints**
Andreas Tönnis, Thomas Kesselheim
- 3 - **Greedy Algorithms for Unrelated Machines Stochastic Scheduling**
Marc Uetz, Varun Gupta, Benjamin Moseley, Qiaomin Xie

■ WE-11

Wednesday, 16:30-18:00 - WGS|005

Vehicle Scheduling

Stream: Logistics and Freight Transportation
Parallel session

Chair: *Martin Poulos*

- 1 - **Exploration of Flexibility Schemes for Time Window Management**
Charlotte Köhler, Jan Fabian Ehmke, Ann Campbell
- 2 - **A randomised three-stage algorithm for the multiple depot vehicle scheduling problem**
Sarang Kulkarni, Mohan Krishnamoorthy, Andreas Ernst, Abhiram Ranade, Rahul Patil
- 3 - **A Branch-and-Price Algorithm for the Scheduling of Customer Visits in the Context of the Multi-Period Service Territory Design Problem**
Martin Poulos, Matthias Bender, Jörg Kalcsics, Stefan Nickel

■ WE-12

Wednesday, 16:30-18:00 - WGS|BIB

Hackathon: Gurobi-TomTom Mobility Maximization Mission Prize Award Session

Stream: Business Track
Parallel session

Chair: *Heiko Schilling*

- 1 - **Gurobi-TomTom-Hackathon Prize Awards**
Heiko Schilling

■ WE-13

Wednesday, 16:30-18:00 - RVH|I

Forecasting Algorithms & Methodology

Stream: Business Analytics, Artificial Intelligence and Forecasting

Parallel session

Chair: *Sven F. Crone*

- 1 - **Generalized Lasso for Weight Regularization in Forecast Combination**
Thomas Setzer, Sebastian Blanc
- 2 - **Efficiency improvement by employing forecast correction in judgmental revisions**
Florian Knöll

■ WE-14

Wednesday, 16:30-18:00 - RVH|II

Analytics in Retail and Digital Commerce II

Stream: Business Analytics, Artificial Intelligence and Forecasting

Parallel session

Chair: *Henning Nobmann*

- 1 - **The Modelling and Assessment of Online Customer Interaction, Customer Journeys and Churning**
Bernhard Luther, Nicola Winter
- 2 - **The relationship between behaviors in real life and buying behaviors on the electronic commerce site**
Kei Takahashi
- 3 - **Analyzing customer journeys in e-commerce**
Henning Nobmann, Thomas Winter

■ WE-15

Wednesday, 16:30-18:00 - RVH|III

Safety and Security

Stream: Simulation and Statistical Modelling
Parallel session

Chair: *Truong Son Pham*

- 1 - **Developing a Generalized Cyber Security Quantification Model.**
Vandana Kadam, Rakesh Verma

2 - Big-Data Approaches for Categorization of Ships based on AIS-Data
Max Krueger

3 - Modeling the Causes for Terrorism: An Innovative Framework Connecting Impactful Events with Terror Incidents
Truong Son Pham, Gonzalo Barbeito, Martin Zsifkovits, Stefan Wolfgang Pickl

■ WE-16

Wednesday, 16:30-18:00 - RBM|1102

Finance III

Stream: Finance
Parallel session

Chair: Michael H. Breitner

1 - Fast methods for the index tracking problem
Dag Haugland

2 - Impact of algorithmic trading on market quality in Austria
Roland Mestel, Michael Murg, Erik Theissen

3 - Optimal Carbon Tax Scheme under Uncertainty in an Oligopolistic Market of Polluters
Andreas Welling

■ WE-17

Wednesday, 16:30-18:00 - RBM|2204

Strategic Planning in Health Care

Stream: Health Care Management
Parallel session

Chair: Brigitte Werners

1 - Simulation-based Evaluation of Locations for Ambulances and Emergency Doctors
Pia Mareike Steenweg, Lara Wiesche, Brigitte Werners

2 - A Location Problem for Emergency Healthcare Facilities
Z. Pelin Bayindir, Cem Iyigün, Melike İşbilir

3 - Long-term personnel scheduling - A case study
Lena Wolbeck, Natalia Kliewer

■ WE-18

Wednesday, 16:30-18:00 - RBM|2215

Models and Methods for Resource-Constrained Project Scheduling

Stream: Project Management and Scheduling
Parallel session

Chair: Norbert Trautmann

1 - A branch-and-bound procedure for the resource-constrained project scheduling problem with partially renewable resources and time windows
Kai Watermeyer, Jürgen Zimmermann

2 - Markovian PERT networks: A new CTMC and benchmark results
Stefan Creemers

3 - CTMDP-Based Exact Method for Stochastic RCPSP with Uncertain Activity Durations and Rework
Xiaoming Wang, Roel Leus, Stefan Creemers, Qingxin Chen, Ning Mao

4 - An novel mixed-integer linear programming formulation for the resource-constrained project scheduling problem
Norbert Trautmann, Tom Rihm

■ WE-19

Wednesday, 16:30-18:00 - RBM|3302

Market Entry & Pricing

Stream: Production and Operations Management
Parallel session

Chair: Mohsen Elhafsi

1 - Pricing, Lead-time Quotation, Inventory Control and Capacity Setting in a Make-to-order System
Ata Jalili Marand

2 - Disruptive Innovation, Market Entry and Production Flexibility in Oligopoly
Benoit Chevalier-Roignant

3 - Managing an Integrated Production and Inventory System Selling to a Dual Market: Long-Term and Walk-In
Mohsen Elhafsi, Essia Hamouda ElHafsi

■ WE-20

Wednesday, 16:30-18:00 - RBM|4403

Supply Chain Planning

Stream: Supply Chain Management
Parallel session

Chair: Tim Gruchmann

1 - A Multi-Period Heuristic for Balancing Effort and Plan Quality in Tactical Supply Chain Planning
Annika Vernbro, Boris Amberg, Stefan Nickel

2 - Sequential vs. Integrated Solution Approaches for the Combined Manpower Teaming and Routing Problem
Yulia Anoshkina, Frank Meisel

- 3 - Managing schedule instability in automotive supply networks: insights from an industry case**
Tim Gruchmann

■ WE-21

Wednesday, 16:30-18:00 - RBM|4404

Flight Systems

Stream: OR in Engineering
Parallel session

Chair: Michael Hartisch

- 1 - An NLP Model for Free-flight Trajectory Planning**
Liana Amaya Moreno, Armin Fügenschuh, Anton Kaier, Swen Schlobach
- 2 - Quantified Programming applied to Airplane Scheduling**
Michael Hartisch, Simon Gnad
- 3 - Co-allocation of communication messages in an integrated modular avionic system**
Elina Rönnerberg

■ WE-22

Wednesday, 16:30-18:00 - HFB|A

MCDM 2: Multi-Criteria Optimization and Uncertainty

Stream: Decision Theory and Multiple Criteria Decision Making

Parallel session

Chair: Stefan Ruzika

- 1 - Risk aversion of veto functions in multi-attribute utility theory based preference models**
Andrej Bregar
- 2 - Scalarizations for multi-objective combinatorial problems with cardinality-constrained uncertainty**
Lisa Thom, Marie Schmidt, Anita Schöbel
- 3 - A General Approximation Algorithm Applied to Bi-objective Mixed Integer Programming Problems**
Stefan Ruzika, Xavier Gandibleux, Pascal Halfmann, Flavien Lucas

■ WE-23

Wednesday, 16:30-18:00 - HFB|B

Opinion Formation (i)

Stream: Game Theory and Experimental Economics
Parallel session

Chair: Martin Hofer

- 1 - Opinion Formation Games in Social Networks**
Diodato Ferraioli

- 2 - Opinion Formation in a Metric Space and Dynamic Social Influences**
Angelo Fanelli

- 3 - Opinion Formation with Aggregation and Negative Influence**
Martin Hofer

■ WE-24

Wednesday, 16:30-18:00 - HFB|C

Multiobjective Linear Programming and Global Optimization

Stream: Control Theory and Continuous Optimization
Parallel session

Chair: Andreas Löhne

- 1 - Algorithm for solving bilevel optimization problems being polyhedral on the lower level**
Alexandra Rittmann
- 2 - Bendsolve tools - polyhedral calculus with Matlab/Octave**
Andreas Löhne, Benjamin Weißing, Daniel Ciripoi
- 3 - Decomposition-based Inner- and Outer-Refinement Algorithms for Global Optimization without Branching**
Ivo Nowak

■ WE-25

Wednesday, 16:30-18:00 - HFB|D

Open-source and Computation Time in Energy Models

Stream: Energy and Environment
Parallel session

Chair: Dirk Hladik

Chair: Philipp Hauser

- 1 - A Large-scale Spatial Open-source Electricity Market Model Using the Julia Language**
Jens Weibezahn, Mario Kendziorski, Jan Zepter
- 2 - Reducing computing times in optimizing energy system models- challenges and opportunities**
Felix Cebulla, Karl-Kien Cao, Manuel Wetzels, Frederik Fiand, Hans Christian Gils

■ WE-26

Wednesday, 16:30-18:00 - HFB|Senat

Managerial Economics

Stream: Game Theory and Experimental Economics
Parallel session

Chair: Rainer Kleber

1 - Inspection strategies and risk self-assessment - an extension of the classical inspection game

Jan Trockel, Benjamin Florian Siggelkow

2 - Audit Strategies in the Presence of Evasion Capabilities: a Mechanism Design Approach

Francis de Vericourt

3 - On the Robustness of the Consumer Homogeneity Assumption with Respect to the Discount Factor for Remanufactured Products

Rainer Kleber, Marc Reimann, Gilvan C. Souza, Weihua Zhang

Thursday, 9:00-10:30

■ TA-01

Thursday, 9:00-10:30 - WGS|101

Risk Aversion in Stochastic Programming

Stream: Optimization under Uncertainty

Parallel session

Chair: Matthias Claus

- 1 - **Risk averse scheduling with scenarios**
Mikita Hradovich, Adam Kasperski, Pawel Zielinski
- 2 - **On stability of stochastic bilevel programs with risk aversion**
Matthias Claus

■ TA-02

Thursday, 9:00-10:30 - WGS|102

Nonlinear Programming Solvers and Specialized Interfaces

Stream: Software Applications and Modelling Systems

Parallel session

Chair: Renke Kuhlmann

- 1 - **WORHP Zen: A Parametric Sensitivity Analysis for the Nonlinear Programming Solver WORHP**
Renke Kuhlmann, Sören Geffken, Christof Büskens
- 2 - **Efficient Computation of Pareto Frontiers with the Multi-Objective Interface of WORHP**
Arne Berger, Sören Geffken, Christof Büskens
- 3 - **On the performance of NLP solvers within global MINLP solvers**
Benjamin Müller, Renke Kuhlmann, Stefan Vigerske

■ TA-03

Thursday, 9:00-10:30 - WGS|103

Vehicle Routing - Column Generation

Stream: Logistics and Freight Transportation

Parallel session

Chair: Stefan Irnich

- 1 - **Branch-and-Price-and-Cut for the Periodic Vehicle Routing Problem with Different Schedule Structures**
Ann-Kathrin Rothenbächer
- 2 - **Bidirectional Labeling in Column-Generation Algorithms for Pickup and Delivery Problems**
Timo Gschwind, Stefan Irnich, Ann-Kathrin Rothenbächer, Christian Tilk

- 3 - **Nested column generation for a rich vehicle routing problem**

Christian Tilk, Stefan Irnich

■ TA-04

Thursday, 9:00-10:30 - WGS|104

Graphs in Air Transportation

Stream: Graphs and Networks

Parallel session

Chair: Pedro Maristany de las Casas

- 1 - **Synthetic Models for Multi-Layered Networks**
Marzena Fügenschuh, Raluca Gera, Mitchell Heaton, Tobias Lory
- 2 - **The Free Route Flight Planning Problem on Airway Networks**
Adam Schienle, Marco Blanco, Ralf Borndörfer, Nam Dung Hoang
- 3 - **Cost Minimal Aircraft Trajectories on Airway Networks**
Pedro Maristany de las Casas, Marco Blanco, Ralf Borndörfer, Nam Dung Hoang

■ TA-05

Thursday, 9:00-10:30 - WGS|104a

Matching, Coloring, and Ordering (i)

Stream: Discrete and Integer Optimization

Parallel session

Chair: Michael Juenger

- 1 - **Robust Recoverable Matchings on a Budget**
Moritz Mühenthaler, Viktor Bindewald
- 2 - **A New Integer Linear Programming Model for the Vertex Coloring Problem**
Adalat Jabrayilov
- 3 - **Mixed-Integer Programming Models for Multiprocessor Scheduling with Communication Delays**
Sven Mallach

■ TA-06

Thursday, 9:00-10:30 - WGS|105

Routing

Stream: Graphs and Networks

Parallel session

Chair: Jörn Schrieber

- 1 - **Decomposition of edge-coloured Eulerian graphs (with an application in vehicle scheduling)**
Hanno Schülldorf
- 2 - **Subtours - Useful Helpers to Solve Travelling Salesman Problems**
Cornelius Rüther, Katherina Meißner, Klaus Ambrosi

3 - Cost-Dependent Clustering: A General Multiscale Approach to Optimal Transport

Jörn Schrieber, Anita Schöbel, Dominic Schuhmacher

■ TA-07

Thursday, 9:00-10:30 - WGS|106

Computational Mixed-Integer Programming 1

Stream: Discrete and Integer Optimization
Parallel session

Chair: Ambros Gleixner

1 - Exploring the Numerics of Branch-and-Cut for Mixed Integer Linear Optimization

Matthias Miltenberger, Ted Ralphs, Daniel Steffy

2 - Measuring the Impact of Branching Rules for MIP

Gerald Gamrath, Christoph Schubert

3 - Compiling MIPLIB 2017: the 6th Mixed-Integer Programming Library

Ambros Gleixner

■ TA-08

Thursday, 9:00-10:30 - WGS|107

Data-driven Transportation Analysis

Stream: Traffic, Mobility and Passenger Transportation
Parallel session

Chair: Alexander Immer

1 - Analyzing Temporal Mobility Patterns of Senior and Disabled Passengers in a Multimodal Setting

Büşra Sevinç, Uğur Eliyi, Selma Gürler

2 - Joint Travel Mode Detection and Segmentation using Recurrent Neural Networks

Alexander Immer, Florian Stock, Patrick Wagner

3 - Enhancing option bundling for automotive manufacturers by reducing demand variability

Radu Constantin Popa, Martin Grunow

■ TA-09

Thursday, 9:00-10:30 - WGS|108

Location Problems

Stream: Discrete and Integer Optimization
Parallel session

Chair: Andreas Klose

1 - Cut generation algorithm for the competitive facility location problem

Andrey Melnikov, Vladimir Beresnev

2 - Crane selection and location on construction sites

Michael Dienstknecht, Dirk Briskorn

3 - A branch-and-bound algorithm for the capacitated facility location problem with convex production costs

Andreas Klose

■ TA-10

Thursday, 9:00-10:30 - WGS|108a

Polyhedral Methods and Symmetry Exploitation

Stream: Discrete and Integer Optimization
Parallel session

Chair: Matthias Walter

1 - On the Size of Integer Programs with Sparse Constraints or Bounded Coefficients

Hendrik Lüthen, Christopher Hojny, Marc Pfetsch

2 - Symmetry in Mixed Integer Programs: Refined Orbitopes and Extended Formulations

Andreas Schmitt, Christopher Hojny, Marc Pfetsch

3 - Parity Polytopes and Binarization

Matthias Walter, Dominik Ermel

■ TA-11

Thursday, 9:00-10:30 - WGS|005

Collaborative Transportation Planning

Stream: Logistics and Freight Transportation
Parallel session

Chair: Margaretha Gansterer

1 - Forming near-optimal regions from bids of less-than-truckload logistics providers on country subdivisions in reverse auctions

Jan-Philipp Eisenbach, Felix Zesch

2 - The benefit of information sharing in horizontal carrier collaborations

Margaretha Gansterer, Richard Hartl, Martin Savelsbergh

■ TA-13

Thursday, 9:00-10:30 - RVH|I

Feature Engineering, Segmentation and Optimization

Stream: Business Analytics, Artificial Intelligence and Forecasting
Parallel session

Chair: Evren Guney

1 - A First Derivative Potts Model for Denoising and Segmentation Using MILP

Ruobing Shen, Gerhard Reinelt, Stéphane Canu

2 - Long-Term Forecasting: Cross-Impact-Analysis vs. time-sliced Bayesian Networks

Hans-Joachim Lenz, Thomas Schwarz

3 - Efficient Election Campaign Optimization Using Integer Programming

Evren Guney

■ TA-14

Thursday, 9:00-10:30 - RVH|II

Customer-Oriented Pricing Mechanisms

Stream: Pricing and Revenue Management

Parallel session

Chair: *Claudius Steinhardt*

1 - Threshold Problems in Ascending Combinatorial Auctions

Bart Vangerven, Dries Goossens, Frits Spieksma

2 - Pricing with Informative Delay Announcements

Secil Savasaneril, Sirma Karakaya, Yasemin Serin

■ TA-15

Thursday, 9:00-10:30 - RVH|III

Agent Based Modelling and Simulation

Stream: Simulation and Statistical Modelling

Parallel session

Chair: *Warren Volk-Makarewicz*

1 - Constructing Models of Reduced Complexity from Agent-Based Simulation Data

Mareen Hallier, Carsten Hartmann

2 - An agent-based simulation for analyzing supply chain strategies in the apparel industry

Christian Stummer, Sabrina Backs, Hermann Jahnke, Lars Lüpke, Mareike Stücken

3 - A Methodological Framework for Validating Agent-Based Simulation Models to Support Decision Making

Warren Volk-Makarewicz

■ TA-16

Thursday, 9:00-10:30 - RBM|1102

Lot Sizing and Inventory Planning

Stream: Production and Operations Management

Parallel session

Chair: *Christoph Johannes*

1 - Considering sequence-dependent stochasticity in production schedules

Michael Manitz, Frank Herrmann, Maximilian Munniger

2 - Production scheduling with discrete perishability of inventories

Mehdi Karimi-Nasab

3 - An extension of the General Lotsizing and Scheduling Problem (GLSP) with volatile energy prices

Christoph Johannes, Matthias Gerhard Wichmann, Thomas Spengler

■ TA-17

Thursday, 9:00-10:30 - RBM|2204

Surgery Planning

Stream: Health Care Management

Parallel session

Chair: *Katja Schimmelpfeng*

1 - How starting times influence performance of the operating theater

Lisa Koppka

2 - Surgery scheduling with consideration of ICU utilization leveling

Steffen Heider, Sebastian Hof, Jan Schoenfelder, Thomas Koperna, Jens Brunner

3 - A hybrid simulation-optimization approach for mobile GP operation planning

Christina Büsing, Martin Comis

■ TA-18

Thursday, 9:00-10:30 - RBM|2215

Scheduling in Shops

Stream: Project Management and Scheduling

Parallel session

Chair: *Julia Lange*

1 - Partially Concurrent Open Shop Scheduling with Resource Constraints

Hagai Ilani, Elad Shufan, Tal Grinshpoun

2 - A dynamic programming approach for the no-wait job shop problem

Ansis Ozolins

3 - Neighborhood structures for the blocking job-shop scheduling problem

Julia Lange, Frank Werner

■ TA-19

Thursday, 9:00-10:30 - RBM|3302

CANCELLED: Case Studies in Operations Management

Stream: Production and Operations Management

Parallel session

Chair: *Seyedreza Rahnamay Touhidi*

■ TA-20

Thursday, 9:00-10:30 - RBM|4403

Supply Chain Design

Stream: Supply Chain Management

Parallel session

Chair: *Teresa Melo*

- 1 - **A joint network and inventory modelling approach for lean and agile strategies**
Wan Chuan (Claire) Chan, Johannes Fichtinger
- 2 - **A Distribution Planning Method for the Regional Logistics Center Considering Carbon Emissions**
Jun-Der Leu, Jin-Jen Liu, Yi-Wei Huang, Larry Jung-Hsing Lee, Andre Krischke
- 3 - **A Mixed-Integer Programming Model for Green Location and Transportation in a Closed-Loop Supply Chain**
Turan Paksoy, Ahmet Çalık, Abdullah Yıldızbaşı, Alexander Kumpf
- 4 - **A tri-objective multi-period model to redesign a food bank supply chain network**
Teresa Melo, Carlos Lúcio Martins, Margarida Vaz Pato

■ TA-21

Thursday, 9:00-10:30 - RBM|4404

Miscellaneous

Stream: OR in Engineering

Parallel session

Chair: *Zuzana Nedelkova*

- 1 - **Scheduling a manufacturing process with several rail-bound and identical machines in the project EWiMa**
Markus Schreiber
- 2 - **Development of Optimal Transit Routes in Afghanistan**
Fawad Zazai
- 3 - **A splitting algorithm for simulation-based optimization problems with categorical variables**
Zuzana Nedelkova

■ TA-22

Thursday, 9:00-10:30 - HFB|A

MCDM 3: Real-World Applications

Stream: Decision Theory and Multiple Criteria Decision Making

Parallel session

Chair: *H.a. Eiselt*

- 1 - **Sustainable tourism destination selection under the effect of digital economy**
Erdem Aksakal

2 - Multiobjective Spatial Optimization: The Canadian Coast Guard

H.a. Eiselt, Amin Akbari, Ronald Pelot

■ TA-23

Thursday, 9:00-10:30 - HFB|B

Optimization and Market Design (i)

Stream: Game Theory and Experimental Economics

Parallel session

Chair: *Martin Bichler*

- 1 - **Linear pricing in double auction markets with non-convexities**
Vladimir Fux
- 2 - **Core allocations in combinatorial exchanges with budget constraints**
Stefan Waldherr, Martin Bichler
- 3 - **Linear Item Pricing In Combinatorial Auctions**
Robert Day

■ TA-24

Thursday, 9:00-10:30 - HFB|C

Nonlinear Optimization 1

Stream: Control Theory and Continuous Optimization

Parallel session

Chair: *Faizan Ahmed*

- 1 - **Robust optimization methods for circle coverings of a square**
Mihály Csaba Markót
- 2 - **Computing the splitting preconditioner for interior point method using an incomplete factorization approach**
Marta Velazco, Aurelio Oliveira

■ TA-25

Thursday, 9:00-10:30 - HFB|D

Energy and Stochastic Programming

Stream: Energy and Environment

Parallel session

Chair: *Dogan Keles*

- 1 - **Strategic generation investment using a stochastic rolling-horizon MPEC approach and adaptive risk management**
Thomas Kallabis, Steven Gabriel
- 2 - **A stochastic energy system model to investigate efficient markets for security of supply in Europe - and challenges when applying the model to high performance computing**
Frieder Borggrefe, Manuel Wetzel

3 - Biomass Supply Planning for Combined Heat and Power Plants using Stochastic Programming

Daniela Guericke, Ignacio Blanco, Juan Miguel Morales, Henrik Madsen

■ TA-26

Thursday, 9:00-10:30 - HFB|Senat

Decision Making under Uncertainty (i)

Stream: Game Theory and Experimental Economics
Parallel session

Chair: Timo Heinrich

1 - An experimental approach to investigate whether and how risk attitudes change

Jonas Dorlöchter, Erwin Amann

2 - Social Learning and the Endowment Effect: An Experiment

Timo Heinrich, Matthias Seifert, Franziska Then

Thursday, 11:00-12:30

■ TB-01

Thursday, 11:00-12:30 - WGS|101

Nonlinear problems under uncertainty

Stream: Optimization under Uncertainty
Parallel session

Chair: Raimund Kovacevic

1 - Optimal control and the Value of Information for a Stochastic Epidemiological SIS-Model

Raimund Kovacevic

2 - Convex Approach with Subgradient Method to Robust Service System Design

Jaroslav Janacek, Marek Kvet

3 - Scenario Dominance for Acceleration of Robust Service System Design Method

Marek Kvet, Jaroslav Janacek

■ TB-02

Thursday, 11:00-12:30 - WGS|102

Implementation of Acceleration Strategies from Mathematics and Computational Sciences for Optimizing Energy System Models

Stream: Software Applications and Modelling Systems
Parallel session

Chair: Felix Cebulla

1 - Getting linear optimising energy system models ready for High Performance Computing

Manuel Wetzel, Karl-Kien Cao, Frederik Fiand, Hans Christian Gils

2 - Optimizing large-scale linear energy problems with block diagonal structure by using parallel interior-point methods

Daniel Rehfeldt, Ambros Gleixner, Thorsten Koch

3 - High Performance Computing with GAMS

Frederik Fiand, Michael Bussieck

4 - High Performance Computing for Energy System Modelling

Thomas Breuer, Dmitry Khabi

■ TB-03

Thursday, 11:00-12:30 - WGS|103

Sustainable Logistics

Stream: Logistics and Freight Transportation
Parallel session

Chair: Moritz Behrend

- 1 - **Multi-objective supplier portfolio configuration under supply risk and sustainability considerations: an a posteriori decision support methodology**
Florian Kellner, Bernhard Lienland, Sebastian Utz
- 2 - **How to control a reverse logistics system when used items return with diminishing quality**
Imre Dobos, Grigory Pishchulov, Ralf Gössinger
- 3 - **Integrating item-sharing and crowdshipping as a 3-dimensional assignment problem**
Moritz Behrend, Frank Meisel

■ TB-04

Thursday, 11:00-12:30 - WGS|104

Algorithms for NP-hard Problems

Stream: Graphs and Networks
Parallel session

Chair: Ernst Althaus

- 1 - **Arboreal bipartite matchings**
Stefan Canzar, Luka Borozan, Khaled Elbassioni, Sören Laue, Domagoj Matijevic
- 2 - **Resolving Conflicts for Lower-Bounded Clustering**
Henning Fernau, Katrin Casel
- 3 - **Solving SAT-Instances with Small Treewidth within the Apache Spark Framework**
Ernst Althaus, Vitali Diel, Andreas Hildebrandt

■ TB-05

Thursday, 11:00-12:30 - WGS|104a

Time-Discretized Formulations for Scheduling Problems (i)

Stream: Discrete and Integer Optimization
Parallel session

Chair: Andreas Börmann

- 1 - **Lower Bounds for the Resource-Constrained Project Scheduling Problem from a Time Bucket Relaxation**
Alexander Tesch
- 2 - **Train service rescheduling considering energy consumption and passenger compensation policy in case of delays**
Luis Cadarso
- 3 - **The Stable Set Problem with Multiple-Choice Constraints on Staircase Graphs**
Oskar Schneider, Andreas Börmann, Thorsten Gellermann, Alexander Martin, Maximilian Merkert

■ TB-06

Thursday, 11:00-12:30 - WGS|105

Social Networks

Stream: Graphs and Networks
Parallel session

Chair: Marinus Gottschau

- 1 - **Individualism and collectivism in social dynamics: contact process with stochastic opinion fluctuations in complex networks**
Liudmila Rozanova, Alexander Temerev
- 2 - **Bootstrap Percolation on Degenerate Graphs**
Marinus Gottschau

■ TB-07

Thursday, 11:00-12:30 - WGS|106

Computational Mixed-Integer Programming 2

Stream: Discrete and Integer Optimization
Parallel session

Chair: Ambros Gleixner

- 1 - **SCIP-SDP: A General-Purpose Solver for Mixed-Integer Semidefinite Programming**
Tristan Gally, Marc Pfetsch, Stefan Ulbrich
- 2 - **Four good reasons to use an Interior Point solver within a MIP solver**
Timo Berthold, Michael Perregaard, Csaba Mészáros
- 3 - **Current progress in ParaXpress**
Yuji Shinano

■ TB-08

Thursday, 11:00-12:30 - WGS|107

The Future of Mobility

Stream: Traffic, Mobility and Passenger Transportation
Parallel session

Chair: Heiko Schilling

- 1 - **Transforming Mobility – Navigation Technology Past, Present, and Future**
Felix G. König, Heiko Schilling
- 2 - **Precisely Detect "Object" Locations Using Crowdsourcing and Machine Learning**
Sören Sonnenburg
- 3 - **Autonomos – Autonomous Driving Technology from Berlin**
Tinosch Ganjineh

■ TB-09

Thursday, 11:00-12:30 - WGS|108

MINLP-Methods

Stream: Discrete and Integer Optimization
Parallel session

Chair: Oliver Stein

- 1 - **Solving MIQP Topology Optimization Problems by Successive Nonconvex Approximation**
Gregoire Njacheun njanzoua, Ivo Nowak
- 2 - **Hypervolume Maximizing Representation for the Bi-objective Knapsack Problem: The Rectangular Knapsack Problem**
Britta Schulze, Carlos M. Fonseca, Luis Paquete, Stefan Ruzika, Michael Stiglmayr, David Willems
- 3 - **Feasible Roundings for Granular Optimization**
Oliver Stein

■ TB-10

Thursday, 11:00-12:30 - WGS|108a

Branch-and-Price

Stream: Discrete and Integer Optimization
Parallel session
Chair: *Stefan Irnich*

- 1 - **A Stabilized Branch-and-Price Algorithm for Vector Packing Problems**
Katrin Hebler, Timo Gschwind, Stefan Irnich
- 2 - **On the Gap of the Skiving Stock Problem**
John Martinovic, Guntram Scheithauer
- 3 - **Column Generation for the Soft-Clustered Vehicle-Routing Problem**
Stefan Irnich, Timo Hintsch
- 4 - **A branch-and-price algorithm for the SPP**
Isabel Friedow

■ TB-11

Thursday, 11:00-12:30 - WGS|005

Vehicle Routing - Heuristics I

Stream: Logistics and Freight Transportation
Parallel session
Chair: *Katharina Glock*

- 1 - **The Time Dependent Vehicle Routing Problem: A Simulation Based Dynamic Programming Approach**
Mehmet Soysal, Mustafa Çimen, Sedat Belbag, Cagri Sel
- 2 - **Vehicle Routing Problem with Ridesharing and Walking**
Olivier Gallay, Marc-Antoine Coindreau, Nicolas Zufferey
- 3 - **Extensions to the Correlated Orienteering Problem for Emergency Surveillance**
Katharina Glock, Anne Meyer, Guido Tack

■ TB-12

Thursday, 11:00-12:30 - WGS|BIB

IBM Business Session – On Deploying successful Decision Optimization applications

Stream: Business Track
Parallel session
Chair: *Sofiane Oussedik*

- 1 - **IBM Decision Optimization cloud offering**
Sebastian Fink

- 2 - **Designing and building new aircrafts case study**
Sofiane Oussedik

■ TB-13

Thursday, 11:00-12:30 - RVH|I

Smart Services and Internet of Things

Stream: Business Analytics, Artificial Intelligence and Forecasting
Parallel session
Chair: *Maria Maleshkova*

- 1 - **Smart Components for Value-driven Service Adaptation**
Maria Maleshkova
- 2 - **Towards Self-governed Smart Services**
Sebastian Bader
- 3 - **Optimizing Data Flows in Loosely Coupled Distributed Applications at Runtime**
Felix Leif Keppmann

■ TB-14

Thursday, 11:00-12:30 - RVH|II

Airline Revenue Management

Stream: Pricing and Revenue Management
Parallel session
Chair: *Robert Klein*

- 1 - **Optimal Benchmarks for the Revenue Management Problem**
Robert Dochow, Stefan Heuer
- 2 - **A stochastic dynamic pricing model for passenger air transportation**
Fernando Zepeda, Heiko Schmitz
- 3 - **A Frank-Wolfe Decomposition Approach to Network Revenue Management**
Thomas Winter, Ivo Nowak, Jörg Pancake-Steeg, Stephan Würfl

■ TB-15

Thursday, 11:00-12:30 - RVH|III

Modelling and Simulation for Operations and Logistics

Stream: Simulation and Statistical Modelling
Parallel session
Chair: *Yony Fernando Ceballos*

1 - Integration of Order Acceptance into Optimization-Based Order Release models

Pia Netzer, Stefan Haeussler, Hubert Missbauer

2 - Analysis of machine use in sport center in Medellin, Colombia

Yony Fernando Ceballos, Salomé Naranjo, Carlos Hernandez

■ **TB-16**

Thursday, 11:00-12:30 - RBM|1102

CANCELLED: Miscellaneous

Stream: Production and Operations Management
Parallel session

Chair: *Gabriel Trazzi*

■ **TB-17**

Thursday, 11:00-12:30 - RBM|2204

Treatment Planning and Health Care Systems

Stream: Health Care Management
Parallel session

Chair: *Stefan Nickel*

1 - Preventing Hot Spots in High Dose-Rate Brachytherapy

Björn Morén, Torbjörn Larsson, Åsa Carlsson Tedgren

2 - Kidney exchange programs with a priori crossmatch probing

Filipe Alvelos, Ana Viana

3 - Evaluating the Performance Criteria of Health Information Systems by Using Fuzzy Type-2 Multi Criteria Decision Making Methodology

Betül Özkan

■ **TB-18**

Thursday, 11:00-12:30 - RBM|2215

Project Management

Stream: Project Management and Scheduling
Parallel session

Chair: *Matthias Gerhard Wichmann*

1 - Impact Assessment Based Sectoral Balancing in Public R&D Project Portfolio Selection Problem

Sinan Gürel, Musa Çağlar

2 - Success of projects with respect to their characteristics

Arik Sadeh

3 - A new Simulation-based optimization Approach for multi-mode resource-constrained project scheduling problems

Parham Azimi

4 - A fuzzy robustness measure for the scheduling of commissioned product development projects

Matthias Gerhard Wichmann, Maren Gäde, Thomas Spengler

■ **TB-19**

Thursday, 11:00-12:30 - RBM|3302

Scheduling and Workload Control

Stream: Production and Operations Management
Parallel session

Chair: *Seyda Topaloglu Yildiz*

1 - Precedence theorems and dynamic programming solutions for the precedence-constrained single machine weighted tardiness problem

Salim Rostami, Stefan Creemers, Roel Leus

2 - An Iterative Matheuristic Approach for the Flexible Tour Scheduling Problem

Seyda Topaloglu Yildiz, Mustafa Avcı

3 - Comparison between Rule- and Optimization based Workload Control Concepts

Stefan Haeussler, Pia Netzer

■ **TB-20**

Thursday, 11:00-12:30 - RBM|4403

Hierarchical Demand Fulfillment

Stream: Supply Chain Management
Parallel session

Chair: *Konstantin Kloos*

1 - Deterministic allocation models for multi-period hierarchical demand fulfillment

Jaime Cano Belmán, Herbert Meyr

2 - Multi-period demand fulfillment in customer hierarchies with stochastic demand

Maryam Nouri Roozbahani, Moritz Fleischmann

3 - New Rules for Allocating Supply in Hierarchical, Push-Based ATP Systems under Stochastic Demand and Service-Level Targets

Konstantin Kloos, Benedikt Schulte, Richard Pibernik

■ **TB-21**

Thursday, 11:00-12:30 - RBM|4404

Modelling for Business and Society

Stream: OR in Engineering
Parallel session

Chair: *Achim Koberstein*

1 - The odyssey from business to research data – ideas, concepts, and obstacles explained on gas network data

Oliver Kunst, Friedrich Dinsel, Sascha Witte, Uwe Gotzes, Thorsten Koch

2 - Solution Algorithm for Capacity Expansion Problem on Networks

Takayuki Shiina, Jun Imaizumi, Susumu Morito

3 - Using mixed integer programming for the optimal design of water supply networks for slums

Lea Rausch, John Friesen, Lena Charlotte Altherr, Peter Pelz

■ TB-22

Thursday, 11:00-12:30 - HFB|A

MCDM 4: Multi-Criteria Decision Making and Fuzzy Systems

Stream: Decision Theory and Multiple Criteria Decision Making

Parallel session

Chair: Olga Metzger

1 - Comparison of City Sustainability Performances with a Hybrid Fuzzy Multi-Criteria Decision Making Method: A Case Study of Turkey

Abdullah Yıldızbaşı, Ahmet Çalık, Turan Paksoy

2 - From Right to Reality: The Children's Daycare Planning Problem

Catherine Cleophas, Martin Weibelzahl, Christina Büsing

3 - Economics of Crisp and Intuitionistic Fuzzy Information

Olga Metzger, Thomas Spengler, Tobias Volkmer

■ TB-23

Thursday, 11:00-12:30 - HFB|B

Tropical Geometry and Game Theory (i)

Stream: Game Theory and Experimental Economics

Parallel session

Chair: Michael Joswig

1 - Tropical spectrahedra and mean payoff stochastic games

Stephane Gaubert, Xavier Allamigeon, Mateusz Skomra

2 - Mean Payoff Games in Products of Simplices

Georg Loho

3 - Tropical Geometry and Mechanism Design

Robert Crowell

■ TB-24

Thursday, 11:00-12:30 - HFB|C

Nonlinear Optimization 2

Stream: Control Theory and Continuous Optimization

Parallel session

Chair: Maksim Barketau

1 - Strong Stability of degenerated C-stationary points in MPCC

Daniel Hernandez Escobar, Jan-J Ruckmann

2 - Maximization of homogeneous polynomials on the simplex: structure, stability, and generic behavior

Faizan Ahmed, Georg Still

3 - Quadratic support functions in quadratic bilevel programming

Oleg Khamisov

■ TB-25

Thursday, 11:00-12:30 - HFB|D

Maintenance in Energy

Stream: Energy and Environment

Parallel session

Chair: Philipp Hauser

1 - An Optimization Model to Develop Efficient Dismantling Networks for Wind Turbines

Martin Westbomke, Jan-Hendrik Piel, Michael H. Breitner, Peter Nyhuis, Malte Stonis

2 - On generating a fleet composition for offshore wind farm maintenance operations

Eligius M.T. Hendrix, Alejandro Gutierrez Alcoba, Inmaculada Garcia Fernandez, Dag Haugland, Elin E. Halvorsen-Weare, Gloria Ortega

3 - On a design of economically near optimal nuclear fuel reload patterns

Roman Cada

■ TB-26

Thursday, 11:00-12:30 - HFB|Senat

Behavioral Inventory Management (i)

Stream: Game Theory and Experimental Economics

Parallel session

Chair: Michael Becker-Peth

1 - Inventory Management with Alternative Myopic Incentive Schemes: Rational and Behavioral Decision Making

Michael Becker-Peth, Kai Hoberg, Margarita Protospappa-Sieke

2 - Explanatory Power of Experience Weighted Attraction in Individual Decision Making Compared to Simple Decision Rules - a Simulation Study

Heike Schenk-Mathes, Christian Koester

3 - Should the Retailer or Supplier Exercise Effort to Increase Demand?

Anna-Lena Sachs, Yingshuai Zhao, Ulrich Thonemann

Thursday, 13:30-14:15

■ TC-22

Thursday, 13:30-14:15 - HFB|A

Semi-Plenary Meinolf Sellmann

Stream: Semi-Plenaries

Semi-plenary session

Chair: Stefan Lessmann

- 1 - **Meta-Algorithms**
Meinolf Sellmann
-

■ TC-23

Thursday, 13:30-14:15 - HFB|B

Semi-Plenary Hans-Georg Zimmermann

Stream: Semi-Plenaries

Parallel session

Chair: Ralph Grothmann

- 1 - **Data Analytics, Machine Intelligence and Digitalization at Siemens**
Hans Georg Zimmermann
-

■ TC-24

Thursday, 13:30-14:15 - HFB|C

Semi-Plenary Alexander Martin

Stream: Semi-Plenaries

Semi-plenary session

Chair: Martin Skutella

- 1 - **Network Flow Problems with Physical Transport**
Alexander Martin
-

■ TC-25

Thursday, 13:30-14:15 - HFB|D

Semi-Plenary Arne Strauss

Stream: Semi-Plenaries

Semi-plenary session

Chair: Catherine Cleophas

- 1 - **Last Mile Logistics**
Arne Karsten Strauss
-

Thursday, 14:45-16:15

■ TD-01

Thursday, 14:45-16:15 - WGS|101

Applications of Uncertainty

Stream: Optimization under Uncertainty

Parallel session

Chair: Christine Markarian

- 1 - **Influence Maximization with Deactivation in Social Networks**
Kübra Tanınmış, Necati Aras, I. Kuban Altinel
 - 2 - **Decision support for tactical planning of maintenance activities - a use case for the INFRALEERT project**
Ute Kandler, Axel Simroth
 - 3 - **Online Leasing with Penalties**
Christine Markarian
-

■ TD-02

Thursday, 14:45-16:15 - WGS|102

Deployment of Optimization Models

Stream: Software Applications and Modelling Systems

Parallel session

Chair: Franz Nelissen

- 1 - **Developing optimization web apps with Xpress**
Johannes Müller, Susanne Heipcke, Yves Colombani
 - 2 - **Recent Advances for Building and Deploying Analytical Solutions using AIMMS**
Ovidiu Listes
 - 3 - **A distributed Optimization Bot/Agent Application Framework for GAMS Models**
Franz Nelissen
-

■ TD-03

Thursday, 14:45-16:15 - WGS|103

Railway Transportation

Stream: Logistics and Freight Transportation

Parallel session

Chair: Carsten Moldenhauer

Chair: Ronny Hansmann

- 1 - **Complexity of railway freight shunting - overview and new results**
Ronny Hansmann
-

■ TD-04

Thursday, 14:45-16:15 - WGS|104

Network Flows

Stream: Graphs and Networks

Parallel session

Chair: Horst W. Hamacher

- 1 - **Shortest Path Approach to the Min-Max Integer Minimum Cost Flow Problem**
Anika Kinscherff, André Chassein
- 2 - **On Finding Maximum Minimum Cost Flows**
Kai Hoppmann, Robert Schwarz
- 3 - **Swapping all-pair shortest path and maximal flow matrices: Theory and applications**
Horst W. Hamacher

■ TD-05

Thursday, 14:45-16:15 - WGS|104a

Scheduling Problems

Stream: Discrete and Integer Optimization
Parallel session

Chair: *Cor Hurkens*

- 1 - **Location-Scheduling Model to Design Charging Infrastructure for a Fleet of Electric Vehicles**
Lubos Buzna, Michal Váňa, Michal Kohani, Matej Cebecauer, Peter Czimmermann
- 2 - **MIP and Heuristics for Multi-Earth-Observing Satellites Scheduling**
Xiaoyu Chen, Gerhard Reinelt, Guangming Dai
- 3 - **Solving integer programming models for the mid-term production planning of high-tech low-volume industries**
Joost de Kruijff, Cor Hurkens, Ton de Kok

■ TD-06

Thursday, 14:45-16:15 - WGS|105

Demand and Load Balancing in Networks

Stream: Graphs and Networks
Parallel session

Chair: *Christoph Helmberg*

- 1 - **Predictive Analytics Based Energy Pricing Approach for Smart Grids**
Jan Keidel, Peter Gluchowski
- 2 - **Virtual Machine Migration and Resource Reallocation: A Multi-Step Approach**
Nguyen Tuan Khai, Andreas Baumgartner, Thomas Bauschert
- 3 - **Synergetic Optimization of Communication and Power Networks**
Anja Hähle, Christoph Helmberg

■ TD-07

Thursday, 14:45-16:15 - WGS|106

Computational Mixed-Integer Programming 3

Stream: Discrete and Integer Optimization
Parallel session

Chair: *Ambros Gleixner*

- 1 - **Recent developments in the CPLEX solver**
Roland Wunderling
- 2 - **Current Status and Future Developments of the SAS MILP Solver**
Philipp Christophel
- 3 - **Recent Advances in Gurobi 7.0**
Michael Winkler, Tobias Achterberg
- 4 - **Satalia's Solving Genie: The SolveEngine**
Vito Tumas, Yuri Moskvovic

■ TD-08

Thursday, 14:45-16:15 - WGS|107

Urban Transport

Stream: Traffic, Mobility and Passenger Transportation
Parallel session

Chair: *Jörn Schönberger*

- 1 - **An Integrated Optimization-Simulation Approach for Sustainable Urban Transport**
Marcus Brandenburg, Werner Jammernegg, Matthias Kannegiesser, Manfred Paier, Tina Wakolbinger
- 2 - **Traffic Speed Prediction with Neural Networks**
Umut Çakmak, Mehmet Serkan Apaydin, Bülent Çatay
- 3 - **Ticket Portfolio Planning for Zone-based Public Transport Tariffs -Time-Oriented Product Discrimination**
Jörn Schönberger

■ TD-09

Thursday, 14:45-16:15 - WGS|108

Robust Combinatorial Optimization (i)

Stream: Discrete and Integer Optimization
Parallel session

Chair: *Jannik Matuschke*

- 1 - **New MIP Formulations for the Steiner Forest Problem**
Daniel Schmidt, Bernd Zey, Francois Margot
- 2 - **Robust Randomized Matchings**
Jannik Matuschke, Martin Skutella, Jose Soto
- 3 - **Mixed Integer Reformulations of Robust b-Matching Problems**
Frauke Liers, Lena Maria Hupp, Manu Kopolke, Alexander Martin, Robert Weismantel

■ TD-10

Thursday, 14:45-16:15 - WGS|108a

Online-Algorithms

Stream: Discrete and Integer Optimization
Parallel session

Chair: *R. Hildenbrandt*

- 1 - **On-line Algorithms for Controlling Distribution Conveyors and Multi-line Palletizers**
Jochen Rethmann, Frank Gurski, Egon Wanke
- 2 - **Optimizing Address Mappings of DRAMs with Fixed Access Patterns**
Marco Natale, Sven Krumke
- 3 - **The k-server problem with parallel requests and the corresponding generalized paging problem**
R. Hildenbrandt

■ TD-11

Thursday, 14:45-16:15 - WGS|005

Vehicle Routing - Heuristics II

Stream: Logistics and Freight Transportation
Parallel session

Chair: *Sandra Huber*

- 1 - **A solution approach for the k-dissimilar vehicle routing problem with practical requirements**
Sandra Zajac
- 2 - **Just-in-Time Route Optimization for Urban Delivery Processes**
Sebastian-Adam GebSKI, Patrick Czerwinski, Marc-Oliver Sonneberg, Max Leyerer, Michael H. Breitner
- 3 - **A matheuristic based on Variable Neighborhood Search for the Swap-Body Vehicle Routing Problem**
Sandra Huber, Jean-François Cordeau, Martin Josef Geiger

■ TD-13

Thursday, 14:45-16:15 - RVH|I

Smart Services and Internet of Things II

Stream: Business Analytics, Artificial Intelligence and Forecasting
Parallel session

Chair: *Maria Maleshkova*

- 1 - **Exploring the Formation of Blockchain-driven Business Networks**
Stefan Seebacher
- 2 - **Estimating Downtime Costs using Simulation**
Clemens Wolff, Michael Vössing
- 3 - **Data-driven Decision Support for Field Service Planning**
Michael Vössing, Clemens Wolff

■ TD-14

Thursday, 14:45-16:15 - RVH|II

Human Decision Making in Revenue Management

Stream: Pricing and Revenue Management
Parallel session

Chair: *Catherine Cleophas*

- 1 - **Prediction and Learning with Expert Advice in Airline Revenue Management**
Stefan Franz, Esther Mohr, Christiane Barz
- 2 - **Considering Human Decision Making in Revenue Management Given Diverse Decision Tasks**
Claudia Schuetze, Catherine Cleophas
- 3 - **Balancing Revenue and Load in Capacity-Based Revenue Management**
Felix Geyer, Christina Büsing, Catherine Cleophas

■ TD-15

Thursday, 14:45-16:15 - RVH|III

Modelling and Simulation Applied to Transportation Systems

Stream: Simulation and Statistical Modelling
Parallel session

Chair: *Malte Thiede*

- 1 - **The European Air Transport System: Data Analysis for System Dynamics Modeling**
Gonzalo Barbeito, Marcia Urban, Ulrike Kluge, Maximilian Moll, Kay Plötner, Martin Zsifkovits, Stefan Wolfgang Pickl, Mirko Hornung
- 2 - **An agent-based simulation using conjoint data: the case of electric vehicles in Germany**
Markus Günther, Marvin Klein, Lars Lüpke
- 3 - **Simulation of a Service Station in a Public Transportation System**
Malte Thiede, Lars Stegemann, Daniel Furstenau, Martin Gersch, Hannes Rothe

■ TD-16

Thursday, 14:45-16:15 - RBM|1102

Assembly Line Planning

Stream: Production and Operations Management
Parallel session

Chair: *Tobias Kreiter*

- 1 - **Flexible layouts for the mixed-model assembly of heterogeneous vehicles**
Andreas Hottenrott, Martin Grunow
- 2 - **Using Extreme Value Theory to Model Assembly Line Balancing Problem with Stochastic Task Times**
F. Tevhide Altekin

3 - Production Sequencing of Multi-level Mixed-Model Assembly Lines

Tobias Kreiter, Ulrich Pferschy

■ TD-17

Thursday, 14:45-16:15 - RBM|2204

Planning Health Care Services

Stream: Health Care Management

Parallel session

Chair: Teresa Melo

1 - Appointment Scheduling Strategies for Medical Group Practices

Julia Block, Lisa Koppka, Matthias Schacht, Brigitte Werners

2 - A Genetic Algorithm for the Vehicle Routing Problem with time window and temporal synchronization constraints

Stephan Hocke, Christina Hermann, Mathias Kasper

3 - Planning of out-of-hours service for pharmacies

Timo Gersing, Christina Büsing, Arie Koster

■ TD-18

Thursday, 14:45-16:15 - RBM|2215

Resource Planning and Production Planning

Stream: Project Management and Scheduling

Parallel session

Chair: Markus Seizinger

1 - Dynamic resource scheduling problem for audit planning

Ethem Canakoglu, Ibrahim Muter, Onur Adanur

2 - Strategic planning of new product introductions in the automotive industry

Christopher Valentin Bersch, Renzo Akkerman, Rainer Kolisch

3 - The two dimensional bin packing problem with layer constraints

Markus Seizinger, Andreas Fügenger, Jens Brunner, Alessio Trivella

■ TD-19

Thursday, 14:45-16:15 - RBM|3302

Production Planning & Control

Stream: Production and Operations Management

Parallel session

Chair: Justus Arne Schwarz

1 - Optimization of processing rates in stochastic operations systems

Raik Stolletz, Jannik Vogel

2 - In-Line Sequencing in Automotive Production Plants - A Simulation Study

Heinrich Kuhn, Marcel Lehmann

3 - Minimizing work-in-process inventory in dynamic Kanban systems

Justus Arne Schwarz, Raik Stolletz

■ TD-20

Thursday, 14:45-16:15 - RBM|4403

Multiple Suppliers

Stream: Supply Chain Management

Parallel session

Chair: Thomas Mellewig

1 - Newsvendor models with unreliable and backup suppliers

Dimitrios Pandelis

2 - Finding the optimal fill rate and reorder point by simulating a periodic review stochastic inventory model with two supply modes

Felix Zesch

3 - Does the Effectiveness of Concurrent Sourcing in Reducing Opportunism Depend on the Internal/External Sourcing Balance?

Thomas Mellewig, Sarah Bruhs

■ TD-21

Thursday, 14:45-16:15 - RBM|4404

Advanced Flow Systems

Stream: OR in Engineering

Parallel session

Chair: Fabian Gnegel

1 - Polyhedral 3D Models for Natural Gas Compressors and Stations

René Saitenmacher, Tom Walther, Benjamin Hiller

2 - A new Approach for the Optimization of Booster Stations

Jonas Benjamin Weber, Ulf Lorenz

3 - Mixed-Integer Linear Programming for a PDE-Constrained Dynamic Network Flow

Fabian Gnegel, Armin Fügenschuh

■ TD-22

Thursday, 14:45-16:15 - HFB|A

MCDM 5: Nonlinear Multiobjective Optimization

Stream: Decision Theory and Multiple Criteria Decision Making

Parallel session

Chair: Kerstin Daechert

- 1 - **A forward-backward method for solving vector optimization problems**
Sorin-Mihai Grad
- 2 - **Weight space decomposition for multiobjective convex quadratic programs**
Marco Milano, Kathrin Klamroth, Margaret Wiecek
- 3 - **A bicriteria perspective on an L-penalty approach for solving MPECs**
Kerstin Daeichert, Sauleh Siddiqui, Javier Saez-Gallego, Steven Gabriel, Juan Miguel Morales

■ TD-23

Thursday, 14:45-16:15 - HFB|B

Congestion Games (i)

Stream: Game Theory and Experimental Economics
Parallel session

Chair: *Alexander Skopalik*

- 1 - **Approximation Algorithms for Unsplittable Resource Allocation Problems**
Antje Bjelde, Max Klimm, Daniel Schmand
- 2 - **Network Design Games with Bandwidth Competition and Selfish Followers**
Daniel Schmand, Alexander Skopalik, Carolin Tidau
- 3 - **On 1.6-approximate pure Nash equilibria**
Alexander Skopalik, Vipin Ravindran Vijayalaksh

■ TD-24

Thursday, 14:45-16:15 - HFB|C

Nonlinear Optimization 3

Stream: Control Theory and Continuous Optimization
Parallel session

Chair: *Mirjam Duer*

- 1 - **Looking for the intersset distance**
Maksim Barketau, Erwin Pesch
- 2 - **Projection method for minimization of polyhedral function over hypercube**
Maxim Demenkov
- 3 - **A factorization method for completely positive matrices based on alternating projections**
Mirjam Duer, Patrick Groetzner

■ TD-25

Thursday, 14:45-16:15 - HFB|D

Energy-oriented scheduling

Stream: Energy and Environment
Parallel session

Chair: *Magnus Fröhling*

- 1 - **Energy-efficient multi-objective scheduling**
Damian Braschczok, Andreas Dellnitz, Andreas Kleine, Jonas Ostmeyer
- 2 - **Energy-oriented scheduling of parallel machines considering peak demand charges and labor costs**
Lukas Strob, Thomas Volling

■ TD-26

Thursday, 14:45-16:15 - HFB|Senat

Behavioral Operations Management (i)

Stream: Game Theory and Experimental Economics
Parallel session

Chair: *Andreas Fügener*

- 1 - **Performance of inventory policies under scarcity - a behavioral perspective**
Sebastian Schiffels
- 2 - **A behavioral investigation of the effect of strategic buckets in project selection**
Andreas Fügener, Sebastian Schiffels, Ulrich Thonemann
- 3 - **Behavioral Responses to Disruptions in the Multi-Armed Bandit Model**
Abdolhossein Ghayazi, Mirko Kremer, Fabian Sting

Friday, 9:00-10:30

■ FA-01

Friday, 9:00-10:30 - WGS|101

Inventory Routing

Stream: Logistics and Freight Transportation

Parallel session

Chair: *Sebastian Malicki*

- 1 - **A decision support system for last-mile distribution of perishables in e-grocery operations**
Christian Fikar
- 2 - **Inventory Routing: Consistency and Split Deliveries**
Emilio Jose Alarcon Ortega, Michael Schilde, Karl Doerner, Sebastian Malicki
- 3 - **Inventory Routing: Setting Safety Stock under Stochastic Demands**
Sebastian Malicki, Stefan Minner, Michael Schilde

■ FA-02

Friday, 9:00-10:30 - WGS|102

Optimization Applications

Stream: Software Applications and Modelling Systems

Parallel session

Chair: *Roland Wessäly*

- 1 - **Modeling uncertainties in supply chains**
Christian Timpe
- 2 - **Exam scheduling at United States Military Academy West Point**
Frederik Proske, Robin Schuchmann
- 3 - **Generic Construction and Efficient Evaluation of DAEs with Flow Network Structure and Their Derivatives in the Context of Gas Networks**
Tom Streubel, Christian Strohm, Philipp Trunschke, Caren Tischendorf
- 4 - **Gigabit at home - How mathematics makes the fiber rollout more efficient!**
Roland Wessäly

■ FA-03

Friday, 9:00-10:30 - WGS|103

Warehouse Management

Stream: Logistics and Freight Transportation

Parallel session

Chair: *David Boywitz*

- 1 - **Active repositioning of storage units in Robotic Mobile Fulfillment Systems**
Marius Merschformann

- 2 - **Order picking with heterogeneous technologies: An integrated article-to-device assignment and manpower allocation problem**
Ralf Gössinger, Grigory Pishchulov, Imre Dobos
- 3 - **Motion and Layout Planning in a Grid-Based Early Baggage Storage System**
Altan Yalcin, Achim Koberstein, Kai-Oliver Schocke
- 4 - **Robust storage assignment in stack- and queue-based storage systems**
David Boywitz, Nils Boysen

■ FA-04

Friday, 9:00-10:30 - WGS|104

Random Keys and Integrated Approaches

Stream: Metaheuristics

Parallel session

Chair: *Franz Rothlauf*

- 1 - **A Biased Random-Key Genetic Algorithm for the Liner Shipping Fleet Repositioning Problem**
Daniel Müller
- 2 - **Generalized Random Key Algorithms for Heuristic Optimization**
Kevin Tierney
- 3 - **The inola AOC - a proved and tested self-learning metaheuristic for optimization in logistics and transportation**
Thomas Scheidl

■ FA-05

Friday, 9:00-10:30 - WGS|104a

Discrete Optimization for User-Interface Design (i)

Stream: Discrete and Integer Optimization

Parallel session

Chair: *Andreas Karrenbauer*

Chair: *Antti Oulasvirta*

- 1 - **A Novel SDP Relaxation for the Quadratic Assignment Problem using Cut Pseudo Bases**
Maximilian John, Andreas Karrenbauer
- 2 - **Optimizing Special Character Entry: the Case of the French Keyboard Standard**
Anna Maria Feit, Antti Oulasvirta
- 3 - **Layout Design with Combinatorial Optimization**
Niraj Ramesh Dayama, Antti Oulasvirta
- 4 - **Combinatorial Optimization in User Interface Design**
Antti Oulasvirta

■ FA-06

Friday, 9:00-10:30 - WGS|105

Assignments and Matchings

Stream: Graphs and Networks

Parallel session

Chair: *Isabel Beckenbach*

1 - An Empirical Study on Online Frequency Assignment Problem (FAP)

Selin Bayramoglu, Berkin Tan Arici, Ali Özgür Çetinok, Tinaz Ekim

2 - k-Budgeted Matching Problems

Martin Comis, Christina Büsing

3 - Matchings in hypergraphs

Isabel Beckenbach

■ FA-07

Friday, 9:00-10:30 - WGS|106

Computational Mixed-Integer Programming 4

Stream: Discrete and Integer Optimization
Parallel session

Chair: Ambros Gleixner

1 - SCIP-Jack: a solver for Steiner Tree problems in graphs and their relatives

Thorsten Koch, Daniel Rehfeldt, Stephen Maher, Gerald Gamrath, Yuji Shinano

2 - Polyhedral Symmetry Handling Techniques Exploiting Problem Information

Christopher Hojny, Marc Pfetsch

3 - Experiments with Conflict Analysis in Mixed-Integer Programming

Jakob Witzig, Timo Berthold, Stefan Heinz

■ FA-08

Friday, 9:00-10:30 - WGS|107

Electric Vehicles: Challenges

Stream: Traffic, Mobility and Passenger Transportation
Parallel session

Chair: Dennis Huisman

1 - Forecasting Energy Consumption for Safety-Assessed In-Car Applications

Dominik Grether, Sebastian Hudert

2 - Electric Vehicle Scheduling under extreme conditions at the police

Kerstin Schmidt, Felix Saucke, Thomas Spengler

3 - The Vehicle Rescheduling Problem with Retiming

Dennis Huisman, Rolf Van Lieshout, Judith Mulder

■ FA-09

Friday, 9:00-10:30 - WGS|108

Variants of the TSP (i)

Stream: Discrete and Integer Optimization
Parallel session

Chair: Ulrich Pferschy

1 - The multi-stripe travelling salesman problem

Eranda Cela, Vladimir Deineko, Gerhard Woeginger

2 - Convex hull and LP based heuristics for the quadratic travelling salesman problem

Rostislav Staněk, Peter Greistorfer, Klaus Ladner, Ulrich Pferschy

3 - Routing and order batching in a non-standard warehouse

Ulrich Pferschy, Joachim Schauer

■ FA-10

Friday, 9:00-10:30 - WGS|108a

Large scale location and routing problems (i)

Stream: Discrete and Integer Optimization
Parallel session

Chair: Bernard Fortz

1 - Mixed-Integer Programming Model for the Joint Placement and Routing of Function Sequences

Dimitri Papadimitriou

2 - A Benders decomposition approach for location of stations in an electric car sharing system

Hatice Calik, Bernard Fortz

3 - Using variables aggregation and Benders decomposition for solving large-scale extended formulations

Bernard Fortz, Markus Leitner

■ FA-11

Friday, 9:00-10:30 - WGS|005

Stochastic Vehicle Routing

Stream: Logistics and Freight Transportation
Parallel session

Chair: Alexandre Florio

1 - A stochastic vehicle routing strategy for the collection of two similar products

Epaminondas Kyriakidis, Theodosis Dimitrakos, Constantinos Karamatsoukis

2 - An Approximate Dynamic Programming Based Heuristic for Stochastic Time-Dependent Vehicle Routing Problems

Mustafa Çimen, Mehmet Soysal, Cagri Sel, Sedat Belbag

3 - The Stochastic Delivery Problem: Optimizing the Number of Successful Deliveries of Courier Companies

Alexandre Florio, Dominique Feillet, Richard Hartl

■ FA-13

Friday, 9:00-10:30 - RVH|I

Smart City and Environment

Stream: Business Analytics, Artificial Intelligence and Forecasting
Parallel session

Chair: Julian Bruns

1 - Detecting Changes in Statistics of Road Accidents to Enhance Road Safety*Katherina Meißner, Cornelius Rüther, Klaus Ambrosi***2 - New technologies, which are the main role in the formation of information society, are computer and communication-communication technologies***Huseyin Demir***3 - Predicting habitable zones of invasive species based on temperature***Julian Bruns, Daniel Seebacher, Manuel Stein***■ FA-14***Friday, 9:00-10:30 - RVH|II***Revenue Management in Transport and Logistics**

Stream: Pricing and Revenue Management
Parallel session

Chair: *Arne Karsten Strauss*

1 - Simulation-based Learning for Dynamic Time Window Allocation in Attended Home Deliveries*Magdalena Lang, Catherine Cleophas, Jan Fabian Ehmke***2 - Profit-Maximizing Time Window Selection Under Consideration of Customer Choice in Attended Home Delivery***Claudius Steinhardt, Jochen Mackert, Robert Klein***3 - Realtime pricing in B2B truck logistics***Alwin Haensel***■ FA-15***Friday, 9:00-10:30 - RVH|III***Modern Methods for Microsimulations**

Stream: Simulation and Statistical Modelling
Parallel session

Chair: *Ralf Münnich*

1 - Mikrosimulation im Wandel der verfügbaren Daten*Markus Zwick***2 - Sensitivity Analysis for Demography Based Microsimulation***Jan Pablo Burgard, Simon Schmaus***3 - A network-flow approach to address selection for populations***Ulf Friedrich***■ FA-17***Friday, 9:00-10:30 - RBM|2204***Scheduling and Staffing 1**

Stream: Project Management and Scheduling
Parallel session

Chair: *Thomas Kesselheim*

1 - A Large Neighbourhood Search approach for the Nurse Rostering Problem*Joe Bunton, Andreas Ernst, Mohan Krishnamoorthy***2 - Job scheduling with simultaneous assignment of machines and multi-skilled workers: a mathematical model***Cinna Seifi, Jürgen Zimmermann***3 - The Temp Secretary Problem and Partly-Stochastic Models for Online Scheduling***Thomas Kesselheim, Andreas Tönnis***■ FA-18***Friday, 9:00-10:30 - RBM|2215***Cranes and Robots**

Stream: Project Management and Scheduling
Parallel session

Chair: *Jenny Nossack*

1 - Assignment, Scheduling and Routing of Triple-Crossover-Cranes in Container Yards*Lennart Zey, Dirk Briskorn***2 - Optimizing Periodic Schedules in Robot Based Manufacturing Lines***Tobias Hofmann***3 - Preventing Crane Interferences at Automated Container Terminals***Jenny Nossack, Dirk Briskorn, Erwin Pesch***■ FA-19***Friday, 9:00-10:30 - RBM|3302***Production and Maintenance Planning**

Stream: Production and Operations Management
Parallel session

Chair: *Sandra Transchel*

1 - Maintenance Planning Using Condition Monitoring Data*Daniel Olivotti, Jens Passlick, Sonja Dreyer, Benedikt Lebek, Michael H. Breitner***2 - Production Planning and Quality Testing Under Random Yield with Two-Dimensional Quality***Sandra Transchel, Candace Yano***3 - Optimization of Work-Center Cycle Time Target Setting in a Semiconductor Wafer Fab***Hermann Gold, Hannah Dusch***■ FA-20***Friday, 9:00-10:30 - RBM|4403***Supply Chain Contracts and Finance**

Stream: Supply Chain Management
Parallel session

Chair: *Gerd J. Hahn*

1 - Analysis of a Revenue Sharing Contract in a Reverse Supply Chain

Ismail Serdar Bakal, Majid Biazaran

2 - When to Offer Upgrades?

Rowan Wang

3 - A Financial Market Perspective on Value Chain Performance

Gerd J. Hahn, Jochen Becker, Marcus Brandenburg

■ **FA-21**

Friday, 9:00-10:30 - RBM|4404

Engineering Applications of OR Techniques

Stream: OR in Engineering

Parallel session

Chair: *Armin Fügenschuh*

1 - Optimization of non-ideal Multi-component Distillation Processes using Kriging Interpolation

Dennis Michaels, Tobias Keßler, Achim Kienle, Christian Kunde, Nick Mertens

2 - The Multistatic Sonar Location Problem and Mixed-Integer Programming

Armin Fügenschuh, Emily Craparo

3 - A Stochastic Optimization Model for Energy Management of Storage-Augmented Hybrid Multi-Building Districts Considering Battery Aging Costs

Timm Weitzel, Maximilian Schneider, Christoph Glock, Stephan Rinderknecht

■ **FA-22**

Friday, 9:00-10:30 - HFB|A

MCDM 6: Software and Implementation

Stream: Decision Theory and Multiple Criteria Decision Making

Parallel session

Chair: *Martin Josef Geiger*

1 - Integrating process mining and PROMETHEE for enhancing decision making in healthcare

Sudhanshu Singh, Rakesh Verma

2 - PolySCIP - Solving Multi-criteria Integer Programs

Sebastian Schenker

3 - Solving large-scale, mid-term planning problems under multiple objectives - A contribution to VeRoLog 2017 optimization competition

Martin Josef Geiger

■ **FA-23**

Friday, 9:00-10:30 - HFB|B

Network Optimization under Competition (i)

Stream: Game Theory and Experimental Economics

Parallel session

Chair: *Tobias Harks*

1 - Strategic Contention Resolution with Limited Feedback

Martin Gairing

2 - A Characterization of Undirected Graphs Admitting Optimal Cost Shares

Anja Huber, Tobias Harks, Manuel Surek

3 - Equilibrium Computation in Atomic Splittable Singleton Congestion Games

Veerle Timmermans, Tobias Harks

■ **FA-24**

Friday, 9:00-10:30 - HFB|C

Optimal Control and Applications

Stream: Control Theory and Continuous Optimization

Parallel session

Chair: *Andrea Seidl*

1 - Optimal Control of 'Deviant' Behavior

Gustav Feichtinger

2 - Optimal control in the presence of stochastic, impulsive, regime switching and paradigm shifting environments in finance and economy

Gerhard-Wilhelm Weber, Emel Savku

3 - On the stabilization of control systems by optimization methods

Vakif Dzhamalov, Taner Büyükköroğlu, Özlem Esen

■ **FA-25**

Friday, 9:00-10:30 - HFB|D

Demand Side Management

Stream: Energy and Environment

Parallel session

Chair: *Magnus Fröhling*

1 - Impacts of Constraints in Residential Demand-Side-Management Algorithms - A Simulation-Based Study

Dennis Behrens, Cornelius Rüther, Thorsten Schoormann, Klaus Ambrosi, Ralf Knackstedt

2 - Robust online planning of on/off-devices in demand side management

Martijn Schoot Uiterkamp, Marco Gerards, Johann Hurink

3 - Production Process Modeling for Demand Side Management

Stefanie Kabelitz, Martin Matke

■ FA-26

Friday, 9:00-10:30 - HFB|Senat

Renewable Energy Sources and Decentralized Energy Systems

Stream: Energy and Environment

Parallel session

Chair: *Dominik Möst*

1 - Resource allocation problems in decentralized energy management

Johann Hurink, Thijs van der Klauw, Marco Gerards

2 - Renewable energy deployment in the UK: a spatial analysis of the opportunities and challenges

James Price

3 - Assessing the Impact of Renewable Energy Sources: Simulation Analysis of the Japanese Electricity Market

Keisuke Yoshihara, Hiroshi Ohashi

Friday, 10:50-11:35

■ FB-22

Friday, 10:50-11:35 - HFB|A

Semi-Plenary Anna Nagurney

Stream: Semi-Plenaries

Semi-plenary session

Chair: *Stefan Minner*

1 - Blood Supply Chains: Challenges for the Industry and How Operations Research Can Help

Anna Nagurney

■ FB-23

Friday, 10:50-11:35 - HFB|B

Semi-Plenary Sven Crone

Stream: Semi-Plenaries

Semi-plenary session

Chair: *Claudius Steinhardt*

1 - The Rise of Artificial Intelligence in Forecasting? Hype vs real world Success Stories

Sven F. Crone

■ FB-24

Friday, 10:50-11:35 - HFB|C

Semi-Plenary Dorothea Wagner

Stream: Semi-Plenaries

Semi-plenary session

Chair: *Rolf Möhring*

1 - Route Planning in Transportation - New Results and Challenges

Dorothea Wagner

■ FB-25

Friday, 10:50-11:35 - HFB|D

Semi-Plenary Christoph Klingenberg

Stream: Semi-Plenaries

Semi-plenary session

Chair: *Alf Kimms*

1 - Improving on-time performance at Deutsche Bahn

Christoph Klingenberg

Friday, 11:45-13:15

■ FC-01

Friday, 11:45-13:15 - WGS|101

Long-haul Transportation

Stream: Logistics and Freight Transportation

Parallel session

Chair: Alexander Kleff

1 - Learning from the past - Risk Profiler for intermodal route planning in SYNCHRO-NET
Denise Holfeld, Axel Simroth

2 - Polynomial time algorithms for truck driver scheduling problems with multiple time windows
Alexander Kleff

■ FC-02

Friday, 11:45-13:15 - WGS|102

Delay Management and Route Choice under Delays

Stream: Traffic, Mobility and Passenger Transportation

Parallel session

Chair: Marie Schmidt

1 - Railway Delay Management in Face of Train Capacity Constraints
Eva König, Cornelia Schoen

2 - Simulating Passengers and Trains for Better Decisions in Delay Management
Sebastian Albert, Philipp Kraus, Jörg Müller, Anita Schöbel

3 - The traveler's route choice under uncertainty
Marie Schmidt, Paul Bouman, Leo Kroon, Anita Schöbel

■ FC-03

Friday, 11:45-13:15 - WGS|103

Green Transportation

Stream: Logistics and Freight Transportation

Parallel session

Chair: Martin Hrusovsky

1 - Efficient Truck Platooning in the Autonomous Driving Possibility: An Artificial Bee Colony Approach
Abtin Nourmohammadzadeh, Sven Hartmann

2 - Optimizing deliveries of daily goods from small producers by minimization of transport emissions
Christina Scharpenberg, Jutta Geldermann

3 - Methodological approaches for green and reliable intermodal transport planning

Martin Hrusovsky, Emrah Demir, Werner Jammerneegg, Tom van Woensel

■ FC-04

Friday, 11:45-13:15 - WGS|104

Routing and Scheduling

Stream: Metaheuristics

Parallel session

Chair: Oliver Wendt

1 - Metaheuristics for the vehicle routing problem with backhauls and soft time windows
Jose Brandao

2 - An Evolutionary Approach for the Traveling Thief Problem
Mahdi Moeini, Daniel Schermer, Oliver Wendt

3 - Scheduling an Indoor Football League: a Tabu Search Based Approach
David Van Bulck, Dries Goossens, Frits Spijksma

4 - NSGA-II algorithm optimization based workflow scheduling for medical applications in cloud
Khaled Sellami, Rabah Kassa, Abdelouhab Aloui, Pierre F Tiako

■ FC-05

Friday, 11:45-13:15 - WGS|104a

Algorithms for Graph Problems (i)

Stream: Discrete and Integer Optimization

Parallel session

Chair: Frauke Liers

1 - A Local-Search Algorithm for Steiner Forest
Melanie Schmidt, Martin Groß, Anupam Gupta, Amit Kumar, Jannik Matuschke, Daniel Schmidt, Jose Verschae

2 - The Primal-Dual Greedy Algorithm for Weighted Covering Problems
Andreas Wierz, Britta Peis, Jose Verschae

3 - Polyhedral Results for Clique Problems with Multiple-Choice Constraints
Maximilian Merkert, Andreas Bärmann, Patrick Gemander, Frauke Liers, Oskar Schneider

■ FC-06

Friday, 11:45-13:15 - WGS|105

Cooperative Truck Logistics

Stream: Graphs and Networks

Parallel session

Chair: Jörg Rambau

1 - New production approach for European truckload cargo industry
Andy Apfelstädt

2 - Multi-Routing und Transport-Matching in Cooperative, Full Truckload, Relay Networks
Bernd Nieberding

3 - MILP-Models for Cooperative Truck Networks
Jörg Rambau

■ FC-07

Friday, 11:45-13:15 - WGS|106

Computational Mixed-Integer Programming 5

Stream: Discrete and Integer Optimization
Parallel session

Chair: *Ambros Gleixner*

- 1 - Automated Parameter Tuning in SCIP**
Ying Wang, Robert Lion Gottwald, Gregor Hendel, Ambros Gleixner, Thorsten Koch
- 2 - Experiments with concurrency in an MINLP solver**
Robert Lion Gottwald, Stephen Maher, Yuji Shinano
- 3 - Adaptive large neighborhood search for MIP**
Gregor Hendel

■ FC-08

Friday, 11:45-13:15 - WGS|107

Advanced Choice-Based Optimization

Stream: Traffic, Mobility and Passenger Transportation
Parallel session

Chair: *Sven Müller*

Chair: *Knut Haase*

- 1 - A Lagrangian relaxation method for solving choice-based mixed linear optimization models that integrate supply and demand interactions**
Meritxell Pacheco Paneque, Shadi Sharif Azadeh, Michel Bierlaire, Bernard Gendron
- 2 - Choice Based Revenue Management with Flexible Substitution Patterns**
Sven Müller, Frauke Seidel, Knut Haase
- 3 - Supply chain contract design under asymmetric information: a multi-nominal logit model**
Guido Voigt, Sven Müller

■ FC-09

Friday, 11:45-13:15 - WGS|108

New Variants of the Traveling Salesman Problem Motivated by Emerging Applications (i)

Stream: Discrete and Integer Optimization
Parallel session

Chair: *Philipp Hungerländer*

Chair: *Anja Fischer*

1 - Optimal Algorithms for an Extended Version of the Knight's Tour Problem

Michael Firstein, Philipp Hungerländer, Anja Fischer

2 - The Traveling Salesperson Problem with Forbidden Neighborhoods on Regular 2D and 3D Grids

Anna Jellen, Philipp Hungerländer, Anja Fischer

3 - A linear-time approximation algorithm of the MSTSP for regular grids

Isabella Stock, Jörg Rambau

■ FC-10

Friday, 11:45-13:15 - WGS|108a

Approximation Algorithms

Stream: Discrete and Integer Optimization
Parallel session

Chair: *Sven Krumke*

- 1 - Balanced Optimization with vector costs - a computational study**
Annette Ficker, Frits Spieksma, Gerhard J. Woeginger
- 2 - A FPTAS for the parametric knapsack problem**
Sven Krumke, Michael Holzhauser

■ FC-11

Friday, 11:45-13:15 - WGS|005

Analysis and Optimization of Road Traffic

Stream: Traffic, Mobility and Passenger Transportation
Parallel session

Chair: *Elmar Swarat*

- 1 - TWT Map Kernel - simulation based routing for field test planning and technical proof of automotive developments**
Bernhard Wieland, Victor Fäßler, Melanie Kluge, Alexander Raufeisen
- 2 - Two portable Linear Programming driven Heuristics for Optimal Toll Enforcement**
Elmar Swarat, Gerwin Gamrath, Markus Reuther, Thomas Schlechte
- 3 - Flexible mobility on demand: integrated choice models and optimization**
Shadi Sharif Azadeh, Bilge Atasoy, Yousef Maknoon, Michel Bierlaire, Moshe Ben-Akiva

■ FC-13

Friday, 11:45-13:15 - RVH|I

Forecasting with Artificial Intelligence and Machine Learning

Stream: Business Analytics, Artificial Intelligence and Forecasting

Parallel session

Chair: *Sven F. Crone*

- 1 - **Easy-to-implement Cognitive Algorithms for Electricity Spot Price Prediction - An Open-source Approach**
Lissy Langer, Jens Weibezahn, Benjamin Grosse, Lisa Hermann
- 2 - **Neural Network forecasts for time series with Islamic Calendar Seasonality - an empirical evaluation**
Sven F. Crone
- 3 - **Prognosis of EPEX SPOT electricity prices using artificial neural networks**
Johannes Hussak, Ralph Grothmann, Merlind Weber

■ FC-14

Friday, 11:45-13:15 - RVH|II

Dynamic Pricing

Stream: Pricing and Revenue Management
Parallel session

Chair: *Jochen Gönsch*

- 1 - **Stochastic Multi-Product Pricing under Competition**
Rainer Schlosser
- 2 - **Optimal dynamic pricing and lot-sizing for deteriorating items when demand and deterioration are exposed to randomness**
Maryam Ghoreishi, Christian Larsen
- 3 - **Time-Consistent, Risk averse Dynamic Pricing**
Jochen Gönsch, Rouven Schur, Michael Hassler

■ FC-17

Friday, 11:45-13:15 - RBM|2204

Scheduling and Staffing 2

Stream: Project Management and Scheduling
Parallel session

Chair: *Alexander Haupt*

- 1 - **Multi-objective large-scale staff allocation**
Karsten Lehmann, Harry Edmonds
- 2 - **A Bi-criteria Formulation of the Ship Crew Scheduling Problem with Resting Hours Constraints**
Anisa Rizvanolli, Alexander Haupt

■ FC-18

Friday, 11:45-13:15 - RBM|2215

Timetables and Aircraft

Stream: Project Management and Scheduling
Parallel session

Chair: *Dries Goossens*

- 1 - **A Two Stage Stochastic Program for Virtual Course Timetabling Problem**
Cristian David Ramirez Pico, Edna Rocío Pérez Malaver

- 2 - **Conference scheduling: a personalized approach**
Dries Goossens, Bart Vangerven, Annette Ficker, Ward Passchyn, Frits Spieksma, Gerhard Woeginger

■ FC-19

Friday, 11:45-13:15 - RBM|3302

Sales Planning

Stream: Production and Operations Management
Parallel session

Chair: *Han Hoogeveen*

- 1 - **Applying capacity allocation auctions to induce truthful information sharing in sales and operations planning**
Frank Hage, Martin Grunow
- 2 - **Deciding how many cuttings to cut from a mother plant: Combining Linear Programming and Data Mining**
Han Hoogeveen

■ FC-20

Friday, 11:45-13:15 - RBM|4403

Food Supply Chains

Stream: Supply Chain Management
Parallel session

Chair: *Martin Grunow*

- 1 - **An integrated loss-based optimisation model for apple supply chain**
Parichehr Paam, Regina Berretta, Mojtaba Heydar
- 2 - **A decision support model for sustainable management of catering supply chains**
Çagri Sel, Mustafa Çimen, Mehmet Soysal
- 3 - **Simulating fresh food supply chains by integrating product quality**
Magdalena Leithner, Christian Fikar
- 4 - **Impact of shelf life on the trade-off between economic and environmental objectives: a dairy case**
Bryndís Stefánsdóttir, Verena Depping, Martin Grunow

■ FC-22

Friday, 11:45-13:15 - HFB|A

MCDM 7: Economics and Finance

Stream: Decision Theory and Multiple Criteria Decision Making
Parallel session

Chair: *Amir Abbas Najafi*

- 1 - **Evaluating of e-Commerce Risks in the Framework of Capital Asset Pricing Model**
Gökçe Candan

2 - A novel bi-objective safety-first model for portfolio optimization

Amir Abbas Najafi, Tahere Hayati

■ **FC-23**

Friday, 11:45-13:15 - HFB|B

Algorithmic Pricing (i)

Stream: Game Theory and Experimental Economics

Parallel session

Chair: *Felix Fischer*

1 - Sequential Posted Price Mechanisms with Correlated Valuations

Bart de Keijzer

2 - Posted price mechanisms for a random stream of customers

Tim Oosterwijk, José Correa, Patricio Foncea, Ruben Hoeksma, Tjark Vredevel

3 - Revenue Gaps for Discriminatory and Anonymous Sequential Posted Pricing

Felix Fischer, Paul Duetting, Max Klimm

■ **FC-24**

Friday, 11:45-13:15 - HFB|C

Continuous Optimization and Applications

Stream: Control Theory and Continuous Optimization

Parallel session

Chair: *Gerhard-Wilhelm Weber*

1 - Decisions on Pricing, Capacity Investment, and Introduction Timing of New Product Generations in a Durable-Good Monopoly

Andrea Seidl, Richard Hartl, Peter M. Kort

2 - Semi-supervised supports vector machines: A semi-infinite programming formulation

Fariha Umbreen, Muhammad Faisal Iqbal, Faizan Ahmed

3 - Extracting the relevant trends for applied portfolio management

Theo Berger

■ **FC-25**

Friday, 11:45-13:15 - HFB|D

Energy and Optimization

Stream: Energy and Environment

Parallel session

Chair: *Dogan Keles*

1 - Optimal Looping of Pipelines in Gas Networks

Ralf Lenz, Robert Schwarz

2 - An optimization algorithm for the planning of virtual power plants

Lars-Peter Lauen

3 - Models and heuristic approaches for a large scale multi-period offshore power-grid extension planing problem

Philipp Hahn

■ **FC-26**

Friday, 11:45-13:15 - HFB|Senat

Water Networks

Stream: Energy and Environment

Parallel session

Chair: *Corinna Hallmann*

1 - Model Generator for Water Distribution Systems

Corinna Hallmann, Stefan Kuhlemann

2 - An Adaptive Discretization Algorithm for the Design of Water Usage and Treatment Networks

Sascha Kuhnke, Arie Koster

3 - Design and development of a decision support system for water distribution networks

Michaela Beckschäfer, Corinna Hallmann

Friday, 13:45-15:00

■ FD-27

Friday, 13:45-15:00 - HFB|Audimax

Plenary Lecture and Closing Ceremony

Stream: Plenaries

Plenary session

Chair: *Natalia Kliewer*

Chair: *Ralf Borndörfer*

Chair: *Jan Fabian Ehmke*

1 - On Big Data, Optimization and Learning

Andrea Lodi

Awards

Track(s): 24

Business Analytics, Artificial Intelligence and Forecasting

Sven F. Crone
Lancaster University Management School
s.crone@lancaster.ac.uk

Alexander Martin
FAU Erlangen-Nürnberg, Discrete Optimization
alexander.martin@math.uni-erlangen.de

Thomas Setzer
KIT
thsetzer@gmail.com

Track(s): 13 14

Business Track

Ralf Borndörfer
Zuse-Institute Berlin
borndoerfer@zib.de

Jan Fabian Ehmke
Viadrina University
ehmke@europa.uni.de

Natalia Kliewer
Freie Universitaet Berlin
natalia.kliewer@fu-berlin.de

Track(s): 12

Control Theory and Continuous Optimization

Mirjam Duer
University of Trier
duer@uni-trier.de

Stefan Ulbrich
TU Darmstadt
ulbrich@mathematik.tu-darmstadt.de

Track(s): 24

Decision Theory and Multiple Criteria Decision Making

Jutta Geldermann
Georg-August-Universität Göttingen
geldermann@wiwi.uni-goettingen.de

Horst W. Hamacher
University of Kaiserslautern
hamacher@mathematik.uni-kl.de

Track(s): 22

Discrete and Integer Optimization

Christoph Helmberg
Technische Universität Chemnitz
helmberg@mathematik.tu-chemnitz.de

Volker Kaibel
Otto-von-Guericke-Universität Magdeburg
kaibel@ovgu.de

Track(s): 5 7 9 10

Energy and Environment

Russell McKenna
Chair for Energy Economics, IIP, KIT
mckenna@kit.edu

Dominik Möst
Technische Universität Dresden
Dominik.Moest@tu-dresden.de

Track(s): 22 25 26

Finance

Daniel Rösch
Universität Regensburg
daniel.roesch@wiwi.uni-regensburg.de

Michael H. Breitner
Institut für Wirtschaftsinformatik
breitner@iwi.uni-hannover.de

Track(s): 16

Game Theory and Experimental Economics

Max Klimm
Humboldt-Universität zu Berlin
max.klimm@hu-berlin.de

Guido Voigt
Universität Hamburg
guido.voigt@uni-hamburg.de

Track(s): 23 26

Graphs and Networks

Marc Pfetsch
Technische Universität Darmstadt
pfetsch@mathematik.tu-darmstadt.de

Jörg Rambau
LS Wirtschaftsmathematik
joerg.rambau@uni-bayreuth.de

Track(s): 4 6

Health Care Management

Teresa Melo
Saarland University of Applied Sciences
teresa.melo@htw-saarland.de

Stefan Nickel
Karlsruhe Institute of Technology (KIT)
stefan.nickel@kit.edu

Track(s): 17

Logistics and Freight Transportation

Stefan Irnich
Johannes Gutenberg University Mainz
irnich@uni-mainz.de

Michael Schneider
RWTH Aachen
schneider@dpwr.rwth-aachen.de

Track(s): 1 3 11

Metaheuristics

Franz Rothlauf
Universität Mainz
rothlauf@uni-mainz.de

Stefan Voss
University of Hamburg
stefan.voss@uni-hamburg.de

Track(s): 4

Optimization under Uncertainty

Rüdiger Schultz
University of Duisburg-Essen
ruediger.schultz@uni-due.de

Sebastian Stiller
Technische Universität Braunschweig
sebastian.stiller@tu-bs.de

Track(s): 1

OR in Engineering

Ulf Lorenz
Universitaet Siegen
ulf.lorenz@uni-siegen.de

Peter Pelz
Technische Universität Darmstadt
peter.pelz@fst.tu-darmstadt.de

Track(s): 21

Plenaries

Ralf Borndörfer
Zuse-Institute Berlin
borndorfer@zib.de

Jan Fabian Ehmke
Viadrina University
ehmke@europa-uni.de

Natalia Kliewer
Freie Universitaet Berlin
natalia.kliewer@fu-berlin.de

Track(s): 27

Pricing and Revenue Management

Catherine Cleophas
RWTH Aachen
catherine.cleophas@rwth-aachen.de

Claudius Steinhardt
Bundeswehr University Munich
(UniBw)
claudius.steinhardt@unibw.de

Track(s): 14

Production and Operations Management

Malte Fliedner
University of Hamburg
Malte.Fliedner@wiso.uni-hamburg.de

Raik Stolletz
University of Mannheim
stolletz@bwl.uni-mannheim.de

Track(s): 16 19

Project Management and Scheduling

Dirk Briskorn
University of Wuppertal
briskorn@uni-wuppertal.de

Florian Jaehn
Sustainable Operations and Logistics
florian.jaehn@wiwi.uni-augsburg.de

Track(s): 17 18

Semi-Plenaries

Ralf Borndörfer
Zuse-Institute Berlin
borndorfer@zib.de

Jan Fabian Ehmke
Viadrina University
ehmke@europa-uni.de

Natalia Kliewer
Freie Universitaet Berlin
natalia.kliewer@fu-berlin.de

Track(s): 1 22 23 24 25

Simulation and Statistical Modelling

Stefan Wolfgang Pickl
UBw München COMTESSA
stefan.pickl@unibw.de

Timo Schmid
Freie Universität Berlin
timo.schmid@fu-berlin.de

Track(s): 15

Software Applications and Modelling Systems

Michael Bussieck
GAMS Software GmbH
MBussieck@gams.com

Thorsten Koch
ZIB / TU Berlin
koch@zib.de

Track(s): 2

Supply Chain Management

Herbert Meyr
University of Hohenheim
H.Meyr@uni-hohenheim.de

Stefan Minner
Technische Universität München
stefan.minner@tum.de

Track(s): 20

Traffic, Mobility and Passenger Transportation

Sven Müller
Karlsruhe University of Applied
Sciences
sven.mueller@hs-karlsruhe.de

Marie Schmidt
Erasmus University Rotterdam
schmidt2@rsm.nl

Track(s): 2 5 8 11

Session Chair Index

Ahmed, Faizan	TA-24
Althaus, Ernst	TB-04
Altherr, Lena Charlotte	WC-21
Averkov, Gennadiy	WB-10
Barketau, Maksim	TB-24
Bärmann, Andreas	TB-05
Beck, Michael	WB-12
Beckenbach, Isabel	FA-06
Becker, Tristan	WB-19
Becker-Peth, Michael	TB-26
Behrend, Moritz	TB-03
Bichler, Martin	TA-23
Bock, Stefan	WB-18
Borndörfer, Ralf	FD-27, WA-27
Boywitz, David	FA-03
Bradler, Alexander	WC-12
Breitner, Michael H.	WB-16, WC-16, WE-16
Brunner, Jens	WC-17
Bruns, Julian	FA-13
Buer, Tobias	WC-26
Ceballos, Yony Fernando	TB-15
Cebulla, Felix	TB-02
Claus, Matthias	TA-01
Cleophas, Catherine	TD-14, TC-25
Crone, Sven F.	FC-13, WB-13, WC-13, WE-13
Daechert, Kerstin	TD-22
Disser, Yann	WC-04
Duer, Mirjam	TD-24
Ehmke, Jan Fabian	WD-23, FD-27, WA-27
Eiselt, H.a.	TA-22
Elhafsi, Mohsen	WE-19
Fink, Andreas	WD-25
Fischer, Anja	WB-07, FC-09, WC-10
Fischer, Felix	FC-23
Florio, Alexandre	FA-11
Fortz, Bernard	FA-10
Fröhling, Magnus	WB-22, FA-25, TD-25
Fügener, Andreas	TD-26
Fügenschuh, Armin	FA-21
Gansterer, Margaretha	TA-11
Geiger, Martin Josef	FA-22
Ghadimi, Foad	WC-19
Gleixner, Ambros	FA-07, FC-07, TA-07, TB-07, TD-07
Glock, Katharina	TB-11
Gnegel, Fabian	TD-21
Goebbels, Steffen	WC-07
Gönsch, Jochen	FC-14
Gonser, Tanya	WC-01
Goossens, Dries	FC-18
Gottschau, Marinus	TB-06
Grob, Christopher	WC-20
Grothmann, Ralph	WC-13, TC-23
Gruchmann, Tim	WE-20
Grunow, Martin	FC-20
Guericke, Stefan	WC-11
Guney, Evren	TA-13
Haase, Knut	FC-08
Hahn, Gerd J.	FA-20
Hallmann, Corinna	FC-26
Hamacher, Horst W.	TD-04
Hansmann, Ronny	TD-03
Harks, Tobias	FA-23
Hartisch, Michael	WE-21
Haupt, Alexander	FC-17
Hauser, Philipp	TB-25, WB-25, WC-25, WE-25
Heinrich, Timo	TA-26
Helmberg, Christoph	TD-06
Hildenbrandt, Achim	WC-09
Hildenbrandt, R.	TD-10
Hladik, Dirk	WE-25
Hoefler, Martin	WE-23
Hoogeveen, Han	FC-19
Hrusovsky, Martin	FC-03
Huber, Sandra	TD-11
Huisman, Dennis	FA-08
Hungerländer, Philipp	WB-07, FC-09
Hurkens, Cor	TD-05
Immer, Alexander	TA-08
Inderfurth, Karl	WD-22
Ionescu, Lucian	WE-05
Irnich, Stefan	TA-03, TB-10
Johannes, Christoph	TA-16
Joswig, Michael	TB-23
Juenger, Michael	TA-05
Kammann, Tim	WB-03
Karrenbauer, Andreas	WE-04, FA-05
Keles, Dogan	FC-25, TA-25
Kempkes, Jens Peter	WB-02
Kesselheim, Thomas	FA-17
Kimms, Alf	FB-25
Klamroth, Kathrin	WC-22
Kleber, Rainer	WE-26
Kleff, Alexander	FC-01
Klein, Robert	TB-14
Kliewer, Natalia	FD-27, WA-27
Kloos, Konstantin	TB-20
Klose, Andreas	TA-09
Koberstein, Achim	TB-21
Koch, Thorsten	WD-24
Kovacevic, Raimund	TB-01
Kreiter, Tobias	TD-16
Krumke, Sven	WE-01, FC-10
Kuhlmann, Renke	TA-02
Lange, Ann-Kathrin	WC-03
Lange, Julia	TA-18
Lessmann, Stefan	TC-22
Letmathe, Peter	WB-24
Liebchen, Christian	WB-08
Liers, Frauke	FC-05
Löhne, Andreas	WE-24
Lorenz, Ulf	WE-02, WB-21
Ma, Tai-yu	WC-05
Maleshkova, Maria	TB-13, TD-13
Malicki, Sebastian	FA-01
Maristany de las Casas, Pedro	TA-04
Markarian, Christine	TD-01
Matuschke, Jannik	TD-09
Megow, Nicole	WE-10
Mellewig, Thomas	TD-20
Mellouli, Taieb	WE-03
Melo, Teresa	TD-17, TA-20
Metzger, Olga	TB-22
Mies, Fabian	WB-01
Minner, Stefan	FB-22
Möhring, Rolf	FB-24
Moldenhauer, Carsten	TD-03
Möst, Dominik	WB-25, WC-25, FA-26
Müller, Sven	FC-08
Münnich, Ralf	FA-15

Najafi, Amir Abbas	FC-22	Schwarz, Justus Arne	TD-19
Nedelkova, Zuzana	TA-21	Schweiger, Jonas	WB-06
Nelissen, Franz	TD-02	Seidl, Andrea	FA-24
Neumann, Thomas	WB-26	Seizinger, Markus	TD-18
Nickel, Stefan	TB-17	Setzer, Thomas	WB-14, WC-14
Nobmann, Henning	WE-14	Skopalik, Alexander	TD-23
Nossack, Jenny	FA-18	Skutella, Martin	TC-24
Ostmeier, Lars	WB-15	Steglich, Mike	WC-02
Oulasvirta, Antti	FA-05	Stein, Oliver	TB-09
Oussedik, Sofiane	TB-12	Steinhardt, Claudius	TA-14, FB-23
Pferschy, Ulrich	FA-09	Steinzen, Ingmar	WB-02
Pham, Truong Son	WE-15	Strauss, Arne Karsten	FA-14
Pickl, Stefan Wolfgang	WD-01	Swarat, Elmar	FC-11
Pouls, Martin	WE-11	Thiede, Malte	TD-15
Puchert, Christian	WE-08	Tierney, Kevin	WB-11
Rahnamay Touhidi, Seyedreza	TA-19	Topaloglu Yildiz, Seyda	TB-19
Rambau, Jörg	FC-06	Transchel, Sandra	FA-19
Recht, Peter	WE-06	Trautmann, Norbert	WE-18
Reuter-Oppermann, Melanie	WB-17	Trazzi, Gabriel	TB-16
Rogers, Mark Francis	WB-23, WC-23	Volk-Makarewicz, Warren	TA-15
Rogetzer, Patricia	WB-20	Walter, Matthias	WB-09, TA-10
Rohrbeck, Brita	WB-05	Wang, Zhengyu	WC-15
Rothlauf, Franz	FA-04	Weber, Gerhard-Wilhelm	FC-24
Ruzika, Stefan	WE-22, WC-24	Weltge, Stefan	WE-07
Schilling, Heiko	TB-08, WE-12	Wendt, Oliver	FC-04
Schimmelpfeng, Katja	TA-17	Werners, Brigitte	WE-17
Schmidt, Marie	FC-02	Wessäly, Roland	FA-02
Schöbel, Anita	WC-08	Westphal, Stephan	WC-06
Schönberger, Jörn	TD-08	Wichmann, Matthias Gerhard	TB-18
Schrieber, Jörn	TA-06	Wiegele, Angelika	WE-09
Schwartz, Stephan	WB-04	Zurowski, Marcin	WC-18

Author Index

- Achterberg, Tobias TD-07
 Adanur, Onur TD-18
 Ahmadi Digehsara, Amin WE-08
 Ahmadi, Taher WC-20
 Ahmed, Faizan FC-24, TB-24
 Ajspur, Mai WC-11
 Akbari, Amin TA-22
 Akkerman, Renzo TD-18
 Aksakal, Erdem TA-22
 Alarcon Ortega, Emilio Jose FA-01
 Albert, Sebastian FC-02
 Aliev, Iskander WB-10
 Allamigeon, Xavier TB-23
 Aloui, Abdelouhab FC-04
 Altekin, F. Tevhide TD-16
 Althaus, Ernst TB-04
 Altherr, Lena Charlotte TB-21, WC-21
 Altinel, I. Kuban TD-01
 Alvelos, Filipe TB-17
 Amann, Erwin TA-26
 Amaya Moreno, Liana WE-21
 Amberg, Boris WE-20
 Ambrosi, Klaus TA-06, FA-13, WC-14, FA-25
 Andersen, Kim Allan WC-22
 Anoshkina, Yulia WE-20
 Aouam, Tarik WC-19
 Apaydin, Mehmet Serkan TD-08
 Apfelstädt, Andy FC-06
 Aras, Necati TD-01
 Arici, Berkin Tan FA-06
 Artmann, Stephan WE-07
 Asgeirsson, Eyjolfur WC-14
 Atasoy, Bilge FC-11
 Avci, Mustafa TB-19
 Averkov, Gennadiy WB-10
 Azimi, Parham TB-18
 Bachtenkirch, David WB-18
 Backs, Sabrina TA-15
 Bader, Sebastian TB-13
 Bakal, İsmail Serdar FA-20
 Balestrieri, Leonardo WB-04
 Balzer, Felix WB-15
 Barbeito, Gonzalo TD-15, WE-15
 Barketau, Maksim TD-24
 Bartenschlager, Christina WC-15
 Barz, Christiane TD-14
 Bastubbe, Michael WB-09
 Baumgartner, Andreas TD-06
 Bauschert, Thomas TD-06
 Bayindir, Z. Pelin WE-17
 Bayramoglu, Selin FA-06
 Bärmann, Andreas WB-01, FC-05, TB-05
 Beck, Michael WB-12
 Beckenbach, Isabel FA-06
 Becker, Jochen FA-20
 Becker, Ruben WE-04
 Becker, Tristan WB-19
 Becker-Peth, Michael TB-26
 Beckmann, Lars WB-02
 Beckschäfer, Michaela FC-26
 Behrend, Moritz TB-03
 Behrens, Dennis FA-25
 Belbag, Sedat WE-01, FA-11, TB-11
 Ben-Akiva, Moshe FC-11
 Bender, Matthias WE-11
 Beresnev, Vladimir TA-09
 Berger, Arne TA-02
 Berger, Roger WB-26
 Berger, Theo FC-24
 Berretta, Regina FC-20
 Bersch, Christopher Valentin TD-18
 Berthold, Kilian WB-05
 Berthold, Timo FA-07, TB-07
 Biazaran, Majid FA-20
 Bichler, Martin TA-23, WD-25
 Bierlaire, Michel FC-08, FC-11
 Bindewald, Viktor TA-05
 Bjelde, Antje WC-04, TD-23
 Blanc, Sebastian WE-13
 Blanco, Ignacio TA-25
 Blanco, Marco TA-04, WE-05
 Blankenburg, Stephan WC-12
 Bley, Andreas WC-20
 Block, Joachim WC-15
 Block, Julia TD-17
 Bock, Stefan WB-05, WB-18
 Bökler, Fritz WC-22
 Bonifaci, Vincenzo WE-04
 Borggreffe, Frieder TA-25
 Borndörfer, Ralf TA-04, WB-04, WE-05, WC-08, WE-08
 Borozan, Luka TB-04
 Bosek, Bartłomiej WC-04
 Bouman, Paul FC-02
 Boysen, Nils FA-03, WC-05
 Boywitz, David FA-03
 Bracht, Uwe WB-07
 Bradler, Alexander WC-12
 Brandao, Jose FC-04
 Brandenburg, Marcus TD-08, FA-20
 Braschczok, Damian TD-25
 Bregar, Andrej WE-22
 Breitner, Michael H. WB-03, TD-11, WB-13, WB-16, FA-19, WC-21, TB-25
 Breuer, Thomas TB-02
 Briest, Patrick WC-12
 Bristkorn, Dirk WC-05, TA-09, FA-18, WC-18
 Bruhs, Sarah TD-20
 Brunner, Jens WC-15, TA-17, WC-17, TD-18
 Bruns, Julian FA-13
 Buchheim, Christoph WC-01
 Bucur, Paul Alexandru WC-10
 Buer, Tobias WC-26
 Bunton, Joe FA-17
 Burgard, Jan Pablo FA-15
 Burt, Christina WB-07, WC-12
 Büsing, Christina WB-01, FA-06, TD-14, TA-17, TD-17, TB-22
 Büskens, Christof TA-02
 Bussieck, Michael TB-02
 Büyükköroğlu, Taner FA-24
 Buzna, Lubos TD-05
 Cada, Roman TB-25
 Cadarso, Luis TB-05
 Çağlar, Musa TB-18
 Çakmak, Umut TD-08
 Calik, Hatice FA-10
 Çalık, Ahmet TA-20, WB-20, TB-22
 Calvet, Laura WE-02

- Campbell, Ann WB-06, WE-11
 Canakoglu, Ethem TD-18
 Candan, Gökçe FC-22
 Cano Belmán, Jaime TB-20
 Canu, Stéphane TA-13
 Canzar, Stefan TB-04
 Cao, Karl-Kien TB-02, WE-25
 Carlsson Tedgren, Åsa TB-17
 Casel, Katrin TB-04
 Çatay, Bülent TD-08
 Ceballos, Yony Fernando TB-15
 Cebecauer, Matej TD-05
 Cebulla, Felix WE-25
 Cela, Eranda FA-09
 Çelebi, Murat WC-14
 Çetinok, Ali Özgür FA-06
 Chalopin, Jérémie WC-04
 Chan, Wan Chuan (Claire) TA-20
 Chassein, André WB-01, TD-04
 Chen, Bo WC-23
 Chen, Qingxin WE-18
 Chen, Xiaoyu TD-05
 Chevalier-Roignant, Benoit WE-19
 Chmielewska, Kaja WB-06
 Christophel, Philipp TD-07
 Chubanov, Sergei WE-07
 Çimen, Mustafa WE-01, FA-11, TB-11, FC-20
 Çiripoi, Daniel WE-24
 Claus, Matthias TA-01
 Clausen, Uwe WC-01
 Cleophas, Catherine FA-14, TD-14, TB-22
 Coindreau, Marc-Antoine TB-11
 Colombani, Yves TD-02
 Comis, Martin FA-06, TA-17
 Cordeau, Jean-François TD-11
 Correa, José FC-23
 Crainic, Teodor Gabriel WE-03
 Craparo, Emily FA-21
 Creemers, Stefan WE-18, TB-19
 Crone, Sven F. FC-13, FB-23
 Crowell, Robert TB-23
 Czerwinski, Patrick TD-11
 Czimmermann, Peter TD-05
 D'Ambrosio, Claudia WB-06
 Daechert, Kerstin TD-22
 Dahlbeck, Mirko WB-07, WE-09
 Dahmen, Martin WC-06
 Dai, Guangming TD-05
 Darlay, Julien WB-02
 Dashty Saridarq, Fardin WE-03
 Day, Robert TA-23
 Dayama, Niraj Ramesh FA-05
 De Boeck, Jérôme WB-25
 de Keijzer, Bart FC-23
 de Kok, Ton TD-05
 de Kruijff, Joost TD-05
 De Santis, Marianna WE-09
 de Vericourt, Francis WE-26
 Deineko, Vladimir FA-09
 Dellaert, Nico WE-03
 Dellnitz, Andreas TD-25
 Demenkov, Maxim TD-24
 Demir, Emrah FC-03
 Demir, Huseyin FA-13
 Depping, Verena FC-20
 Diel, Vitali TB-04
 Dienstknecht, Michael TA-09
 Dimitrakos, Theodosios FA-11
 Dinsel, Friedrich TB-21
 Disser, Yann WC-04
 Dobos, Imre FA-03, TB-03
 Dochow, Robert TB-14
 Doerner, Karl FA-01
 Dorlöchter, Jonas TA-26
 Dreyer, Sonja FA-19
 Dreyfuss, Michael WC-20
 Duda, Malwina WE-09
 Duer, Mirjam TD-24
 Duetting, Paul FC-23
 Dusch, Hannah FA-19
 Dzhafarov, Vakif FA-24
 Edmonds, Harry FC-17
 Eglese, Richard WA-27
 Ehmke, Jan Fabian WB-06, WE-11, FA-14
 Eilers, Dennis WB-13
 Eiselt, H.a. TA-22
 Eisenbach, Jan-Philipp TA-11
 Ekim, Tinaz FA-06
 Elbassioni, Khaled TB-04
 Elhafi, Mohsen WE-19
 Eliiyi, Uğur TA-08
 Ermel, Dominik TA-10
 Ernst, Andreas WC-09, WE-11, FA-17
 Esen, Özlem FA-24
 Fabian, Csaba WC-01
 Faisal Iqbal, Muhammad FC-24
 Fanelli, Angelo WE-23
 Faulin, Javier WE-02
 Fäßler, Victor FC-11
 Feichtenschlager, Michael WB-12
 Feichtinger, Gustav FA-24
 Feillet, Dominique FA-11
 Feit, Anna Maria FA-05
 Fernau, Henning TB-04
 Ferraioli, Diodato WE-23
 Fiand, Frederik TB-02, WE-25
 Fichtinger, Johannes TA-20
 Ficker, Annette FC-10, FC-18
 Fikar, Christian FA-01, FC-20
 Fink, Sebastian WC-02, TB-12
 Firstein, Michael FC-09
 Fischer, Anja WB-07, FC-09, WE-09
 Fischer, Felix FC-23
 Fischer, Frank WE-09
 Fleischmann, Moritz TB-20, WB-20
 Florio, Alexandre FA-11
 Foncea, Patricio FC-23
 Fonseca, Carlos M. TB-09
 Fontaine, Pirmin WB-24
 Formanowicz, Dorota WB-06
 Formanowicz, Piotr WB-06, WB-18
 Fortz, Bernard FA-10
 Fourer, Robert WB-02
 Frank, Michael WB-12
 Franz, Stefan TD-14
 Friedow, Isabel TB-10
 Friedrich, Ulf FA-15
 Friesen, John TB-21
 Fügner, Andreas TD-18, TD-26
 Fügenschuh, Armin FA-21, TD-21, WE-21
 Fügenschuh, Marzena TA-04
 Furstenuau, Daniel TD-15, WB-15

Fux, Vladimir	TA-23	Guericke, Daniela	TA-25
Gaar, Elisabeth	WE-09	Guericke, Stefan	WC-11
Gabriel, Steven	TD-22, TA-25	Guney, Evren	TA-13
Gairing, Martin	FA-23	Günther, Markus	TD-15
Gallay, Olivier	TB-11	Gupta, Anupam	FC-05
Gally, Tristan	TB-07	Gupta, Varun	WE-10
Gamrath, Gerald	FA-07, TA-07	Gürel, Sinan	TB-18
Gamrath, Gerwin	FC-11	Gurevich, Pavel	WB-13
Gamrath, Inken	WC-13	Gürler, Selma	TA-08
Gandibleux, Xavier	WE-22	Gurski, Frank	WB-04, TD-10
Ganjineh, Tinosch	TB-08	Gutierrez Alcoba, Alejandro	TB-25
Gansterer, Margaretha	TA-11	Haase, Knut	FC-08
Garcia Fernandez, Inmaculada	TB-25	Hackfeld, Jan	WC-04
Gaubert, Stephane	TB-23	Haensel, Alwin	FA-14
Gäde, Maren	TB-18	Haeussler, Stefan	TB-15, TB-19
Gebski, Sebastian-Adam	TD-11	Hage, Frank	FC-19
Geffken, Sören	TA-02	Hahn, Gerd J.	FA-20
Geiger, Martin Josef	TD-11, FA-22	Hahn, Philipp	FC-25
Geldermann, Jutta	FC-03	Halffmann, Pascal	WE-22
Gellermann, Thorsten	TB-05	Hallier, Mareen	TA-15
Gemander, Patrick	FC-05	Hallmann, Corinna	FC-26
Gendron, Bernard	FC-08	Halvorsen-Weare, Elin E.	TB-25
Gera, Raluca	TA-04	Hamacher, Horst W.	TD-04
Gerards, Marco	FA-25, 26	Hamouda ElHafsi, Essia	WE-19
Gersch, Martin	TD-15, WB-15	Hansknecht, Christoph	WC-04
Gersing, Timo	TD-17	Hansmann, Ronny	TD-03
Geyer, Felix	TD-14	Happach, Felix	WC-24
Ghayazi, Abdolhossein	TD-26	Harks, Tobias	FA-23
Ghoreishi, Maryam	FC-14	Hart, Paul	WC-12
Gils, Hans Christian	TB-02, WE-25	Hartisch, Michael	WE-02, WB-21, WE-21
Glanzer, Christoph	WE-07	Hartl, Richard	FA-11, TA-11, FC-24
Gleixner, Ambros	TB-02, FC-07, TA-07	Hartmann, Carsten	TA-15
Glock, Christoph	FA-21	Hartmann, Sven	FC-03
Glock, Katharina	TB-11	Hassler, Michael	FC-14
Gluchowski, Peter	TD-06	Haugland, Dag	WE-16, TB-25
Glushko, Pavlo	WC-01	Haupt, Alexander	FC-17
Gnad, Simon	WE-21	Hauser, Philipp	WC-25
Gnegel, Fabian	TD-21	Hayati, Tahere	FC-22
Godbersen, Gregor	WB-05	Hähle, Anja	TD-06
Goebbels, Steffen	WC-07	Heaton, Mitchell	TA-04
Gold, Hermann	FA-19	Heßler, Katrin	TB-10
Gönsch, Jochen	FC-14	Heckmann, Iris	WC-01
Gonser, Tanya	WC-01	Heider, Steffen	TA-17
González Merino, Bernardo	WB-10	Heinrich, Timo	TA-26
Goossens, Dries	FC-04, TA-14, FC-18	Heinz, Stefan	FA-07
Göpfert, Paul	WB-05	Heipcke, Susanne	TD-02
Gössinger, Ralf	FA-03, TB-03	Helm, Christopher	WC-16
Gottschau, Marinus	TB-06	Helmberg, Christoph	TD-06
Gottwald, Robert Lion	FC-07	Hendel, Gregor	FC-07
Gotzes, Uwe	TB-21	Hendrix, Eligius M.T.	TB-25
Grad, Sorin-Mihai	TD-22	Hennings, Felix	WC-25
Greistorfer, Peter	FA-09	Herlyn, Wilmjakob	WB-19
Grether, Dominik	FA-08	Hermann, Christina	TD-17
Grigoriu, Liliana	WC-18	Hermann, Lisa	FC-13
Grimm, Boris	WB-08	Hernandez Escobar, Daniel	TB-24
Grinshpoun, Tal	TA-18	Hernandez, Carlos	TB-15
Groß, Martin	FC-05	Herrmann, Frank	TA-16
Grob, Christopher	WC-20	Hettich, Felix	WB-05
Groetzner, Patrick	TD-24	Heuer, Stefan	TB-14
Grosse, Benjamin	FC-13	Heydar, Mojtaba	FC-20
Grothmann, Ralph	FC-13, WB-14	Hildebrandt, Andreas	TB-04
Gruchmann, Tim	WE-20	Hildenbrandt, Achim	WC-09
Grunow, Martin	TA-08, TD-16, FC-19, 20	Hildenbrandt, R.	TD-10
Gschwind, Timo	TA-03, TB-10	Hiller, Benjamin	TD-21
Guðjohnsen, Júlíus Pétur	WC-14	Hintsch, Timo	TB-10
Guckenbiehl, Gabriel Franz	WC-26	Hladik, Dirk	WB-25

Hoang, Nam Dung	TA-04, WE-05	Kasper, Mathias	TD-17
Hoberg, Kai	TB-26	Kasperski, Adam	TA-01
Hocke, Stephan	TD-17	Kassa, Rabah	FC-04
Hofer, Martin	WE-23	Kóczy, László	WC-23
Hoeksma, Ruben	FC-23	Kämmerling, Nicolas	WC-01
Hof, Sebastian	TA-17	Keßler, Tobias	FA-21
Hofmann, Tobias	FA-18	Keidel, Jan	TD-06
Hojny, Christopher	FA-07, TA-10	Kellner, Florian	TB-03
Holfeld, Denise	FC-01	Kempkes, Jens Peter	WB-02
Holzhauser, Michael	FC-10	Kendzioriski, Mario	WE-25
Hoogeveen, Han	WC-08, FC-19	Keppmann, Felix Leif	TB-13
Hoppmann, Kai	TD-04	Kesselheim, Thomas	WE-10, FA-17
Hornung, Mirko	TD-15	Khabi, Dmitry	TB-02
Hottenrott, Andreas	TD-16	Khamisov, Oleg	TB-24
Hradovich, Mikita	TA-01	Kieckhäfer, Karsten	WB-22
Hrusovsky, Martin	FC-03	Kienle, Achim	FA-21
Huang, Yi-Wei	TA-20	Kinscherff, Anika	TD-04
Huber, Anja	FA-23	Klamroth, Kathrin	TD-22, WC-22
Huber, Sandra	TD-11	Kleber, Rainer	WE-26
Hudert, Sebastian	FA-08	Kleff, Alexander	FC-01
Huebler, Clemens	WC-21	Klein, Marvin	TD-15
Huisman, Dennis	FA-08	Klein, Robert	FA-14
Hungerländer, Philipp	WB-07, FC-09, WC-10	Kleine, Andreas	TD-25
Hupp, Lena Maria	WB-01, TD-09	Kleinert, Thomas	WB-25
Hurink, Johann	FA-25, 26	Kleinschmidt, Agathe	WB-03
Hurkens, Cor	TD-05	Kliwer, Natalia	WE-05, WE-17
Hussak, Johannes	FC-13	Klimm, Max	FC-23, TD-23
Ilani, Hagai	TA-18	Klingenberg, Christoph	FB-25
Imaizumi, Jun	TB-21	Kloos, Konstantin	TB-20
Immer, Alexander	TA-08	Klose, Andreas	TA-09
Inderfurth, Karl	WD-22	Kluge, Melanie	FC-11
Ionescu, Lucian	WE-05	Kluge, Ulrike	TD-15
Irnich, Stefan	TA-03, TB-10	Knackstedt, Ralf	FA-25
İşbilir, Melike	WE-17	Knöll, Florian	WE-13
Iyigün, Cem	WE-17	Koberstein, Achim	WC-01, FA-03
Jabrayilov, Adalat	TA-05	Koch, Thorsten	TB-02, FA-07, FC-07, TB-21
Jacob, Jonathan	WC-26	Koester, Christian	TB-26
Jahn, Carlos	WB-03	Kohani, Michal	TD-05
Jahnke, Hermann	TA-15	Köhler, Charlotte	WE-11
Jalili Marand, Ata	WE-19	Kolev, Pavel	WE-04
Jammerneegg, Werner	FC-03, TD-08, WB-20	Kolisch, Rainer	WB-05, TD-18, WC-18
Janacek, Jaroslav	TB-01	Kolkmann, Sven	WB-15
Jónsson, Sigurður	WC-14	König, Eva	FC-02
Jellen, Anna	FC-09	König, Felix G.	TB-08
Jensen, Rune	WC-11	Koperna, Thomas	TA-17
Johannes, Christoph	TA-16	Köpp, Cornelius	WB-13
John, Maximilian	FA-05	Koppka, Lisa	TA-17, TD-17
Juan, Angel A.	WE-02	Kort, Peter M.	FC-24
Jung, Tobias	WC-13	Koster, Arie	TD-17, FC-26
Kabelitz, Stefanie	FA-25	Kovacevic, Raimund	TB-01
Kadam, Vandana	WE-15	Kozeletskyi, Igor	WB-24
Kaier, Anton	WE-21	Kraul, Sebastian	WC-17
Kaiser, Marcus	WC-05	Kraus, Philipp	FC-02
Kalcsics, Jörg	WE-11	Kreiter, Tobias	TD-16
Kallabis, Thomas	TA-25	Kremer, Mirko	TD-26
Kammann, Tim	WB-03	Kriebel, Johannes	WC-16
Kandler, Ute	TD-01	Krinninger, Sebastian	WE-04
Kannegiesser, Matthias	TD-08	Krischke, Andre	TA-20
Kant, Philipp	WC-07	Krishnamoorthy, Mohan	WC-09, WE-11, FA-17
Kapolke, Manu	WB-01, TD-09	Kristjansson, Bjarni	WB-02
Karakaya, Sirma	TA-14	Kroon, Leo	FC-02
Karamatsoukis, Constantinos	FA-11	Kruber, Markus	WB-09
Karbstein, Marika	WC-08	Krueger, Max	WE-15
Karimi-Nasab, Mehdi	TA-16	Krüger, Thomas	WB-07
Karlssohn, Emil	WC-18	Krumke, Sven	WE-01, FC-10, TD-10
Karrenbauer, Andreas	WE-04, FA-05	Kuhlemann, Stefan	WB-11, FC-26

Kuhlmann, Renke	TA-02	Malicki, Sebastian	FA-01
Kuhn, Heinrich	TD-19	Mallach, Sven	TA-05
Kuhnke, Sascha	FC-26	Manitz, Michael	TA-16
Kulkarni, Sarang	WE-11	Mao, Ning	WE-18
Kumar, Amit	FC-05	Marcotte, Étienne	WB-25
Kumpf, Alexander	TA-20, WB-20	Marcotte, Patrice	WB-25
Kunde, Christian	FA-21	Margot, Francois	TD-09
Kunst, Oliver	TB-21	Maristany de las Casas, Pedro	TA-04
Kupfer, Stefan	WB-16	Markarian, Christine	TD-01
Kurtz, Jannis	WE-01	Markót, Mihály Csaba	TA-24
Kvet, Marek	TB-01	Martin, Alexander	TB-05, TD-09, TC-24
Kyriakidis, Epaminondas	FA-11	Martinovic, John	TB-10
Labbé, Martine	WB-25	Martins, Carlos Lúcio	TA-20
Ladner, Klaus	FA-09	Matijevic, Domagoj	TB-04
Lang, Magdalena	FA-14	Matke, Martin	FA-25
Lange, Ann-Kathrin	WB-03	Mattfeld, Dirk Christian	WD-23
Lange, Julia	TA-18	Matuschke, Jannik	FC-05, TD-09
Langer, Lissy	FC-13	Mészáros, Csaba	TB-07
Larsen, Christian	FC-14	Mehlhorn, Kurt	WE-04
Larsen, Rune	WB-11	Meißner, Julie	WC-04
Larsson, Torbjörn	TB-17	Meißner, Katherina	TA-06, FA-13
Latorre-Biel, Juan-Ignacio	WE-02	Meisel, Frank	TB-03, WE-20
Laue, Sören	TB-04	Mellewigt, Thomas	TD-20
Lauen, Lars-Peter	FC-25	Mellouli, Taieb	WE-03
Lebek, Benedikt	FA-19	Melnikov, Andrey	TA-09
Lee, Larry Jung-Hsing	TA-20	Melo, Teresa	TA-20
Lehmann, Karsten	FC-17	Merkert, Maximilian	FC-05, TB-05
Lehmann, Marcel	TD-19	Merschformann, Marius	FA-03
Leise, Philipp	WC-21	Mertens, Nick	FA-21
Leithner, Magdalena	FC-20	Mestel, Roland	WE-16
Leitner, Markus	FA-10	Metzger, Olga	TB-22, WB-26
Leniowski, Dariusz	WC-04	Meyer, Anne	TB-11
Lenz, Hans-Joachim	TA-13	Meyr, Herbert	TB-20
Lenz, Ralf	FC-25	Michaels, Dennis	FA-21
Lenzen, Christoph	WE-04	Mies, Fabian	WB-01
Leu, Jun-Der	TA-20	Milano, Marco	TD-22
Leus, Roel	WE-18, TB-19	Miltenberger, Matthias	TA-07
Leyerer, Max	WB-03, TD-11	Minner, Stefan	FA-01
Liebchen, Christian	WB-08	Missbauer, Hubert	TB-15
Lienland, Bernhard	TB-03	Moeini, Mahdi	FC-04
Lier, Stefan	WB-19	Mohr, Esther	TD-14
Liers, Frauke	WB-01, FC-05, TD-09, WB-25	Mokhtar, Hamid	WC-09
Linderoth, Jeff	WB-06	Moll, Maximilian	TD-15
Lipmann, Maarten	WC-04	Morales, Juan Miguel	TD-22, TA-25
Listes, Ovidiu	TD-02	Morén, Björn	TB-17
Liu, Jin-Jen	TA-20	Morito, Susumu	TB-21
Lodi, Andrea	FD-27	Moseley, Benjamin	WE-10
Löhne, Andreas	WE-24	Moskovic, Youri	TD-07
Loho, Georg	TB-23	Möst, Dominik	WB-25
Lorenz, Ulf	WE-02, TD-21, WB-21	Mueller, Tankred	WC-21
Lory, Tobias	TA-04	Mühlenthaler, Moritz	TA-05
Lübbecke, Marco	WE-08, WB-09, WD-24	Mulder, Judith	FA-08
Lucas, Flavian	WE-22	Müller, Benjamin	TA-02
Luedtke, Jim	WB-06	Müller, Christoph	WB-22
Lukas, Elmar	WB-16	Müller, Daniel	FA-04
Lüpke, Lars	TA-15, TD-15	Müller, Johannes	TD-02
Lüthen, Hendrik	TA-10	Müller, Jörg	FC-02
Luther, Bernhard	WE-14	Müller, Sven	FC-08
Ma, Tai-yu	WC-05	Munninger, Maximilian	TA-16
Mackert, Jochen	FA-14	Murg, Michael	WE-16
Madlener, Reinhard	WB-22	Muter, Ibrahim	TD-18
Madsen, Henrik	TA-25	Nagurney, Anna	FB-22
Maher, Stephen	FA-07, FC-07, WB-09	Najafi, Amir Abbas	FC-22
Maier, Kerstin	WB-07	Naranjo, Salomé	TB-15
Maknoon, Yousef	FC-11	Natale, Marco	TD-10
Maleshkova, Maria	TB-13, WB-17	Nedelkova, Zuzana	TA-21

Nelissen, Franz	TD-02
Netzer, Pia	TB-15, TB-19
Neumann, Thomas	WB-26
Nickel, Stefan	WC-01, WE-11, WB-17, WE-20
Nießen, Nils	WE-08
Nieberding, Bernd	FC-06
Njacheun njanzoua, Gregoire	TB-09
Nobmann, Henning	WE-14
Nossack, Jenny	FA-18
Nouri Roozbahani, Maryam	TB-20
Nourmohammadzadeh, Abtin	FC-03
Nowak, Ivo	TB-09, TB-14, WE-24
Nyhuis, Peter	TB-25
Ohashi, Hiroshi	FA-26
Oliveira, Aurelio	TA-24
Olivotti, Daniel	FA-19
Olver, Neil	WE-10
Oosterwijk, Tim	FC-23
Ortega, Gloria	TB-25
Ostmeier, Lars	WB-15
Ostmeyer, Jonas	TD-25
Otto, Christin	WE-06
Oulasvirta, Antti	FA-05
Oussedik, Sofiane	TB-12
Özkan, Betül	TB-17
Ozolins, Ansis	TA-18
Öztürk, Işıl	WC-14
Paam, Parichehr	FC-20
Paar, Alexander	WC-12
Paat, Joseph	WB-10
Pacheco Paneque, Meritxell	FC-08
Pacino, Dario	WB-11
Paetz, Friederike	WB-14
Paier, Manfred	TD-08
Pajeau, Clément	WC-12
Paksoy, Turan	TA-20, WB-20, TB-22
Pancake-Steeg, Jörg	TB-14
Pandelis, Dimitrios	TD-20
Papadimitriou, Dimitri	FA-10
Paquete, Luis	TB-09
Parmentier, Axel	WB-09
Passchyn, Ward	FC-18
Passlick, Jens	FA-19
Patil, Rahul	WE-11
Pérez Malaver, Edna Rocío	FC-18
Pätzold, Julius	WC-08
Peis, Britta	WB-01, FC-05
Pelot, Ronald	TA-22
Pelz, Peter	TB-21, WC-21
Perregaard, Michael	TB-07
Pesch, Erwin	FA-18, TD-24
Petkovic, Milena	WC-13
Petróczy, Dóra Gréta	WC-23
Pfersch, Ulrich	FA-09, TD-16
Pfetsch, Marc	FA-07, TB-07, TA-10
Pham, Truong Son	WE-15
Pibernik, Richard	TB-20
Pickl, Stefan Wolfgang	TD-15, WC-15, WE-15
Piel, Jan-Hendrik	WB-16, WC-21, TB-25
Pietruczuk, Jakub	WB-18
Pishchulov, Grigory	FA-03, TB-03
Plötner, Kay	TD-15
Pohl, Maximilian	WC-18
Pohle-Fröhlich, Regina	WC-07
Popa, Radu Constantin	TA-08
Pouls, Martin	WE-11
Price, James	FA-26
Proske, Frederik	FA-02
Protopappa-Sieke, Margarita	TB-26
Pruhs, Kirk	WE-10
Puchert, Christian	WE-08
Qu, Ruini	WC-23
Radermacher, Marius	WC-16
Ralphs, Ted	TA-07
Rambau, Jörg	FC-06, FC-09
Ramirez Pico, Cristian David	FC-18
Ranade, Abhiram	WE-11
Raufeisen, Alexander	FC-11
Rausch, Lea	TB-21
Recht, Peter	WE-06
Redmond, Michael	WB-06
Rehfeldt, Daniel	TB-02, FA-07
Rehs, Carolin	WB-04
Reimann, Marc	WE-26
Reinelt, Gerhard	TD-05, TA-13
Reintjes, Christian	WB-21
Rendl, Andrea	WC-10
Rendl, Franz	WE-09
Renken, Malte	WE-08
Rethmann, Jochen	TD-10
Reuss, Nicole	WC-14
Reuter-Oppermann, Melanie	WB-17
Reuther, Markus	WB-08, FC-11
Reyes-Rubiano, Lorena	WE-02
Rihm, Tom	WE-18
Rinderknecht, Stephan	FA-21
Rittmann, Alexandra	WE-24
Rizvanolli, Anisa	FC-17
Rogers, Mark Francis	WC-23
Rogetzer, Patricia	WB-20
Rohleder, Martin	WC-16
Rohrbeck, Brita	WB-05
Rolfes, Raimund	WC-21
Rönnberg, Elina	WC-18, WE-21
Rostami, Borzou	WC-01
Rostami, Salim	TB-19
Rothe, Hannes	TD-15
Rothenbacher, Ann-Kathrin	TA-03
Rožanova, Liudmila	TB-06
Ruckmann, Jan-J	TB-24
Rüther, Cornelius	TA-06, FA-13, FA-25
Ruzika, Stefan	WC-06, TB-09, WC-22, WE-22
Sachs, Anna-Lena	TB-26
Sadeh, Arik	TB-18
Saez-Gallego, Javier	TD-22
Sahin, Guvenc	WE-08
Saini, Pratibha	WB-19
Saitenmacher, René	TD-21
Saldanha-da-Gama, Francisco	WC-01
Sankowski, Piotr	WC-04
Saucke, Felix	FA-08
Saul, Benjamin	WB-21
Savard, Gilles	WB-25
Savasaneril, Secil	TA-14
Savelsbergh, Martin	TA-11
Savku, Emel	FA-24
Schacht, Matthias	TD-17
Schade, Konrad	WC-20
Schade, Stanley	WB-08
Scharpenberg, Christina	FC-03
Schauer, Joachim	FA-09
Scheidl, Thomas	FA-04

Scheithauer, Guntram	TB-10	Sellami, Khaled	FC-04
Schenk-Mathes, Heike	TB-26	Sellmann, Meinolf	TC-22
Schenker, Sebastian	FA-22	Semmler-Ludwig, Regina	WB-14
Schermer, Daniel	FC-04	Serin, Yasemin	TA-14
Schewior, Kevin	WC-04, WE-10, WB-24	Serrano, Adrian	WE-02
Schienle, Adam	TA-04, WC-24	Setzer, Thomas	WE-13
Schiewe, Alexander	WC-08	Sevinç, Büşra	TA-08
Schiewe, Philine	WC-08, WE-08	Shapoval, Katerina	WB-14
Schiffels, Sebastian	TD-26	Sharif Azadeh, Shadi	FC-08, FC-11
Schilde, Michael	FA-01	Shavarani, Mahdi	WB-03
Schilling, Heiko	TB-08, WE-12	Shen, Ruobing	TA-13
Schindler, Sören	WB-03	Shiina, Takayuki	TB-21
Schlichte, Thomas	WE-05, WB-08, WE-08, FC-11	Shinano, Yuji	FA-07, FC-07, TB-07
Schlenker, Hans	WC-02	Shufan, Elad	TA-18
Schlobach, Swen	WE-21	Siddiqui, Sauleh	TD-22
Schlosser, Rainer	FC-14	Siefen, Kostja	WC-02
Schlöter, Miriam	WC-04	Siggelkow, Benjamin Florian	WE-26
Schmand, Daniel	TD-23	Silbermayr, Lena	WB-20
Schmaus, Simon	FA-15	Simroth, Axel	FC-01, TD-01
Schmidt, Daniel	FC-05, TD-09	Singh, Sudhanshu	WB-15, FA-22
Schmidt, Eva	WE-01	Sirvent, Mathias	WE-05
Schmidt, Kerstin	FA-08	Sitters, René	WE-10
Schmidt, Marie	FC-02, WE-22	Skomra, Mateusz	TB-23
Schmidt, Martin	WB-25	Skopalik, Alexander	TD-23
Schmidt, Melanie	FC-05	Skutella, Martin	TD-09
Schmitt, Andreas	TA-10	Sonneberg, Marc-Oliver	WB-03, TD-11
Schmitz, Heiko	TB-14	Sonnenburg, Sören	TB-08
Schneider, Maximilian	FA-21	Soto, Jose	TD-09
Schneider, Oskar	FC-05, TB-05	Souza, Gilvan C.	WE-26
Schöbel, Anita	FC-02, TA-06, WC-08, WE-08, WE-22	Soysal, Mehmet	WE-01, FA-11, TB-11, FC-20
Schocke, Kai-Oliver	FA-03	Spengler, Thomas	TB-22, WB-26
Schoen, Cornelia	FC-02, WB-19	Spengler, Thomas	FA-08, TA-16, TB-18, WB-22
Schoenfelder, Jan	TA-17, WC-17	Spieksma, Frits	FC-04, FC-10, TA-14, FC-18
Schönberger, Jörn	TD-08	Spies, Claudia	WB-15
Schoormann, Thorsten	FA-25	Staněk, Rostislav	FA-09
Schoot Uiterkamp, Martijn	FA-25	Steenweg, Pia Mareike	WE-17
Schosser, Stephan	WB-26	Stefánsdóttir, Bryndís	FC-20
Schrader, Philipp	WB-16	Stefánsson, Hlynur	WC-14
Schreiber, Markus	TA-21	Steffy, Daniel	TA-07
Schrieber, Jörn	TA-06	Stegemann, Lars	TD-15
Schubert, Christoph	TA-07	Steglich, Mike	WC-02
Schuchmann, Robin	FA-02	Stehling, Stefan	WE-06
Schuetze, Claudia	TD-14	Stein, Manuel	FA-13
Schuhmacher, Dominic	TA-06	Stein, Oliver	TB-09
Schülldorf, Hanno	TA-06	Steinhardt, Claudius	FA-14
Schulte, Alexander	WC-07	Steinzen, Ingmar	WC-12
Schulte, Benedikt	TB-20	Stenger, David	WC-21
Schulze, Britta	TB-09	Stephan, Konrad	WC-05
Schumacher, Gerrit	WB-20	Stidsen, Thomas	WC-22
Schur, Rouven	FC-14	Stieber, Anke	WB-21
Schwartz, Stephan	WB-04	Stiglmayr, Michael	TB-09
Schwarz, Justus Arne	TD-19	Still, Georg	TB-24
Schwarz, Robert	TD-04, FC-25	Sting, Fabian	TD-26
Schwarz, Thomas	TA-13	Stock, Florian	TA-08
Schweiger, Jonas	WB-06	Stock, Isabella	FC-09
Schwerdfeger, Stefan	WC-05	Stolletz, Raik	TD-19
Schwientek, Anne	WB-03	Stonis, Malte	TB-25
Schymura, Matthias	WB-10	Stougie, Leen	WC-04, WE-10
Seebacher, Daniel	FA-13	Strauß, Petra	WC-08
Seebacher, Stefan	TD-13	Strauss, Arne Karsten	TC-25
Seidel, Frauke	FC-08	Streicher, Manuel	WE-01
Seidl, Andrea	FC-24	Streubel, Tom	FA-02, WC-25
Seifert, Matthias	TA-26	Strob, Lukas	TD-25
Seifi, Cinna	FA-17	Strohm, Christian	FA-02
Seizinger, Markus	WC-17, TD-18, WC-24	Strohm, Fabian	WB-19
Sel, Cagri	FA-11, TB-11, FC-20	Stücken, Mareike	TA-15

Stuke, Hannes	WB-13	Waldherr, Stefan	TA-23
Stummer, Christian	TA-15	Walter, Matthias	TA-10
Surek, Manuel	FA-23	Walther, Tom	TD-21
Swarat, Elmar	FC-11	Wang, Rowan	FA-20
Tack, Guido	TB-11	Wang, Xiaoming	WE-18
Takahashi, Kei	WE-14	Wang, Ying	FC-07
Tanınmış, Kübra	TD-01	Wang, Zhengyu	WC-15
Tarim, Armagan	WE-01	Wanke, Egon	TD-10
Temerev, Alexander	TB-06	Watermeyer, Kai	WE-18
Tesch, Alexander	TB-05	Weber, Christoph	WB-15
Theissen, Erik	WE-16	Weber, Gerhard-Wilhelm	FA-24
Then, Franziska	TA-26	Weber, Jonas Benjamin	TD-21
Thiede, Malte	TD-15	Weber, Merlind	FC-13
Thielen, Clemens	WC-17	Weißing, Benjamin	WE-24
Thom, Lisa	WE-22	Weibelzahl, Martin	WE-05, TB-22
Thonemann, Ulrich	TB-26, TD-26	Weibe Zahn, Jens	FC-13, WE-25
Tiako, Pierre F	FC-04	Weik, Norman	WE-08
Tidau, Carolin	TD-23	Weismantel, Robert	WE-07, TD-09
Tierney, Kevin	FA-04, WB-11	Weitzel, Timm	FA-21
Tilk, Christian	TA-03	Weller, Tobias	WB-17
Timmermans, Veerle	FA-23	Welling, Andreas	WE-16
Timpe, Christian	FA-02	Weltge, Stefan	WB-10
Tischendorf, Caren	FA-02	Wendt, Oliver	FC-04
Tönnis, Andreas	WE-10, FA-17	Werner, Frank	TA-18
Topaloglu Yildiz, Seyda	TB-19	Werners, Brigitte	TD-17, WE-17, WB-19
Transchel, Sandra	FA-19	Wessäly, Roland	FA-02
Trautmann, Norbert	WE-18	West, Adam	WC-12
Trivella, Alessio	TD-18	Westbomke, Martin	TB-25
Trockel, Jan	WE-26	Westermann, Lutz	WC-02
Truden, Christian	WC-10	Wetzel, Manuel	TB-02, TA-25, WE-25
Trunschke, Philipp	FA-02	Wichmann, Matthias Gerhard	TA-16, TB-18
Tuan Khai, Nguyen	TD-06	Wiecek, Margaret	TD-22, WC-22
Tumas, Vito	TD-07	Wiegele, Angelika	WE-09
Uetz, Marc	WE-10	Wieland, Bernhard	FC-11
Ulbrich, Stefan	TB-07	Wierz, Andreas	WB-01, FC-05
Ulmer, Marlin Wolf	WB-24	Wiesche, Lara	WE-17
Umbreen, Fariha	FC-24	Willems, David	WC-06, TB-09
Urban, Marcia	TD-15	Winkler, Michael	TD-07
Utz, Sebastian	TB-03	Winter, Nicola	WE-14
Van Bulck, David	FC-04	Winter, Thomas	TB-14, WE-14
van den Akker, Marjan	WC-08	Witt, Jonas	WB-09
van den Broek, Roel	WC-08	Witte, Sascha	TB-21
van der Klauw, Thijs	FA-26	Witzig, Jakob	FA-07, WB-08
Van Lieshout, Rolf	FA-08	Woeginger, Gerhard J.	FC-10
van Woensel, Tom	FC-03, WE-03	Woeginger, Gerhard	FA-09, FC-18
Vangerven, Bart	TA-14, FC-18	Wolbeck, Lena	WE-17
Váňa, Michal	TD-05	Wolff, Clemens	TD-13
Vaz Pato, Margarida	TA-20	Wolff, Stefanie	WB-22
Velazco, Marta	TA-24	Wunderling, Roland	TD-07
Verma, Rakesh	WB-15, WE-15, FA-22	Würll, Stephan	TB-14
Vernbro, Annika	WE-20	Xie, Qiaomin	WE-10
Verschae, Jose	FC-05	Yalcin, Altan	FA-03
Viana, Ana	TB-17	Yam, Kevin	WC-16
Vigerske, Stefan	TA-02	Yano, Candace	FA-19
Vijayalaksh, Vipin Ravindran	TD-23	Yıldızbaşı, Abdullah	TA-20, WB-20, TB-22
Vogel, Jannik	TD-19	Yoshihara, Keisuke	FA-26
Vogt, Bodo	WB-26	Yüceoglu, Birol	WC-14
Voigt, Guido	FC-08	Zajac, Sandra	TD-11
Volk-Makarewicz, Warren	TA-15	Zander, Anne	WB-17
Volkmer, Tobias	TB-22, WB-26	Zazai, Fawad	TA-21
Volling, Thomas	TD-25	Zehner, Oliver	WC-06
Vössing, Michael	TD-13	Zenklusen, Rico	WE-07
Vredeveld, Tjark	FC-23	Zepeda, Fernando	TB-14
Wagner, Dorothea	FB-24	Zepeter, Jan	WE-25
Wagner, Patrick	TA-08	Zesch, Felix	TA-11, TD-20
Wakolbinger, Tina	TD-08	Zey, Bernd	TD-09

Zey, Lennart	FA-18	Zimmermann, Wolf	WB-21
Zhang, Weihua	WE-26	Zsifkovits, Martin	TD-15, WE-15
Zhao, Yingshuai	TB-26	Zufferey, Nicolas	TB-11
Zieger, Stephan	WE-08	Zurowski, Marcin	WC-18
Zielinski, Pawel	TA-01	Zwick, Markus	FA-15
Zimmermann, Hans Georg	WB-14, TC-23	Zych-Pawlewicz, Anna	WC-04
Zimmermann, Jürgen	FA-17, WE-18		

SESSION INDEX

Wednesday, 9:00-10:30

WA-27: Opening Ceremony and Plenary Lecture (HFB Audimax)	1
---	---

Wednesday, 11:00-12:30

WB-01: Methods for Robustness (WGS 101)	1
WB-02: Modeling Systems I (WGS 102)	1
WB-03: Location Planning (WGS 103)	1
WB-04: Graphs and Complexity (WGS 104)	2
WB-05: Location of Charging Stations for Electric Vehicles (WGS 104a)	2
WB-06: Graphs and Modeling Techniques (WGS 105)	2
WB-07: New Approaches for Combinatorial Optimization Problems in Manufacturing (i) (WGS 106)	2
WB-08: Railway Timetabling (WGS 107)	2
WB-09: Recent Developments in Column Generation (i) (WGS 108)	2
WB-10: Integer Linear Programming (i) (WGS 108a)	3
WB-11: Liner Shipping Optimization I (WGS 005)	3
WB-12: Business Track I (WGS BIB)	3
WB-13: Forecasting Neural Network Specification (RVH I)	3
WB-14: Class and Score Prediction (RVH II)	3
WB-15: Modelling and Simulation in the Service Industry (RVH III)	3
WB-16: Finance I (RBM 1102)	4
WB-17: Data-driven Healthcare Services (RBM 2204)	4
WB-18: Scheduling and Sequencing (RBM 2215)	4
WB-19: Production and Service Networks (RBM 3302)	4
WB-20: Closed Loop Supply Chains (RBM 4403)	4
WB-21: Technologies of Artificial Creativity (RBM 4404)	4
WB-22: Energy and Mobility (HFB A)	5
WB-23: CANCELLED: Game Theory and Economics (HFB B)	5
WB-24: GOR Dissertation Prize (HFB C)	5
WB-25: Market Design, Bidding and Market Zones (HFB D)	5
WB-26: Bargaining (i) (HFB Senat)	5

Wednesday, 13:30-15:00

WC-01: Stochastic Integer Programs (WGS 101)	6
WC-02: Modeling Systems II (WGS 102)	6
WC-03: Cancelled: Terminal Operations (WGS 103)	6
WC-04: Online Optimization (WGS 104)	6
WC-05: Car Pooling & Sharing (WGS 104a)	6
WC-06: Selected Topics (WGS 105)	6
WC-07: Various Aspects of Discrete Models (WGS 106)	7
WC-08: Public Transportation Planning I (WGS 107)	7
WC-09: Travelling and Shipping (WGS 108)	7
WC-10: New Solution Approaches for Applications from Real-World Projects (i) (WGS 108a)	7
WC-11: Liner Shipping Optimization II (WGS 005)	7
WC-12: Business Track II (WGS BIB)	7
WC-13: Forecasting Energy and Commodities (RVH I)	8
WC-14: Analytics in Retail and Digital Commerce I (RVH II)	8
WC-15: Advances in Modelling and Simulation Methodologies (RVH III)	8
WC-16: Finance II (RBM 1102)	8
WC-17: Staff Scheduling (RBM 2204)	8
WC-18: Scheduling on Parallel Machines (RBM 2215)	8
WC-19: Production and Service Networks II (RBM 3302)	9
WC-20: Supply Chain Inventories (RBM 4403)	9
WC-21: Optimization of Technical Systems (RBM 4404)	9

WC-22: MCDM 1: Complexity and Special Techniques (HFB A)	9
WC-23: Game Theory and Optimization (HFB B)	9
WC-24: GOR Master Thesis Prize (HFB C)	9
WC-25: Gas Networks and Market (HFB D)	10
WC-26: Automated Negotiations in Logistics (i) (HFB Senat)	10

Wednesday, 15:30-16:15

WD-01: Cancelled: Semi-Plenary Panos M. Pardalos (WGS 101)	10
WD-22: Presentation by the GOR Science Award Winner (HFB A)	10
WD-23: Semi-Plenary Dirk Christian Mattfeld (HFB B)	10
WD-24: Semi-Plenary Marco Lübbecke (HFB C)	10
WD-25: Semi-Plenary Martin Bichler (HFB D)	10

Wednesday, 16:30-18:00

WE-01: Robust Combinatorial Optimization (WGS 101)	11
WE-02: Optimization Software (WGS 102)	11
WE-03: Vehicle routing - Exact Methods (WGS 103)	11
WE-04: Confluence of Discrete and Continuous Network Optimization (WGS 104)	12
WE-05: Planning and Scheduling in Air Transportation (WGS 104a)	12
WE-06: Cycle Packings (WGS 105)	12
WE-07: Foundations of Linear and Integer Programming (i) (WGS 106)	12
WE-08: Public Transportation Planning 2 (WGS 107)	12
WE-09: Discrete Optimization by Semidefinite Methods (i) (WGS 108)	12
WE-10: Scheduling and Resource Management under Uncertainty (WGS 108a)	13
WE-11: Vehicle Scheduling (WGS 005)	13
WE-12: Hackathon: Gurobi-TomTom Mobility Maximization Mission Prize Award Session (WGS BIB)	13
WE-13: Forecasting Algorithms & Methodology (RVH I)	13
WE-14: Analytics in Retail and Digital Commerce II (RVH II)	13
WE-15: Safety and Security (RVH III)	13
WE-16: Finance III (RBM 1102)	14
WE-17: Strategic Planning in Health Care (RBM 2204)	14
WE-18: Models and Methods for Resource-Constrained Project Scheduling (RBM 2215)	14
WE-19: Market Entry & Pricing (RBM 3302)	14
WE-20: Supply Chain Planning (RBM 4403)	14
WE-21: Flight Systems (RBM 4404)	15
WE-22: MCDM 2: Multi-Criteria Optimization and Uncertainty (HFB A)	15
WE-23: Opinion Formation (i) (HFB B)	15
WE-24: Multiobjective Linear Programming and Global Optimization (HFB C)	15
WE-25: Open-source and Computation Time in Energy Models (HFB D)	15
WE-26: Managerial Economics (HFB Senat)	15

Thursday, 9:00-10:30

TA-01: Risk Aversion in Stochastic Programming (WGS 101)	17
TA-02: Nonlinear Programming Solvers and Specialized Interfaces (WGS 102)	17
TA-03: Vehicle Routing - Column Generation (WGS 103)	17
TA-04: Graphs in Air Transportation (WGS 104)	17
TA-05: Matching, Coloring, and Ordering (i) (WGS 104a)	17
TA-06: Routing (WGS 105)	17
TA-07: Computational Mixed-Integer Programming 1 (WGS 106)	18
TA-08: Data-driven Transportation Analysis (WGS 107)	18
TA-09: Location Problems (WGS 108)	18
TA-10: Polyhedral Methods and Symmetry Exploitation (WGS 108a)	18
TA-11: Collaborative Transportation Planning (WGS 005)	18
TA-13: Feature Engineering, Segmentation and Optimization (RVH I)	18
TA-14: Customer-Oriented Pricing Mechanisms (RVH II)	19
TA-15: Agent Based Modelling and Simulation (RVH III)	19

TA-16: Lot Sizing and Inventory Planning (RBM 1102)	19
TA-17: Surgery Planning (RBM 2204)	19
TA-18: Scheduling in Shops (RBM 2215)	19
TA-19: CANCELLED: Case Studies in Operations Management (RBM 3302)	19
TA-20: Supply Chain Design (RBM 4403)	20
TA-21: Miscellaneous (RBM 4404)	20
TA-22: MCDM 3: Real-World Applications (HFB A)	20
TA-23: Optimization and Market Design (i) (HFB B)	20
TA-24: Nonlinear Optimization 1 (HFB C)	20
TA-25: Energy and Stochastic Programming (HFB D)	20
TA-26: Decision Making under Uncertainty (i) (HFB Senat)	21

Thursday, 11:00-12:30

TB-01: Nonlinear problems under uncertainty (WGS 101)	21
TB-02: Implementation of Acceleration Strategies from Mathematics and Computational Sciences for Optimizing Energy System Models (WGS 102)	21
TB-03: Sustainable Logistics (WGS 103)	21
TB-04: Algorithms for NP-hard Problems (WGS 104)	22
TB-05: Time-Discretized Formulations for Scheduling Problems (i) (WGS 104a)	22
TB-06: Social Networks (WGS 105)	22
TB-07: Computational Mixed-Integer Programming 2 (WGS 106)	22
TB-08: The Future of Mobility (WGS 107)	22
TB-09: MINLP-Methods (WGS 108)	22
TB-10: Branch-and-Price (WGS 108a)	23
TB-11: Vehicle Routing - Heuristics I (WGS 005)	23
TB-12: IBM Business Session – On Deploying successful Decision Optimization applications (WGS BIB)	23
TB-13: Smart Services and Internet of Things (RVH I)	23
TB-14: Airline Revenue Management (RVH II)	23
TB-15: Modelling and Simulation for Operations and Logistics (RVH III)	23
TB-16: CANCELLED: Miscellaneous (RBM 1102)	24
TB-17: Treatment Planning and Health Care Systems (RBM 2204)	24
TB-18: Project Management (RBM 2215)	24
TB-19: Scheduling and Workload Control (RBM 3302)	24
TB-20: Hierarchical Demand Fulfillment (RBM 4403)	24
TB-21: Modelling for Business and Society (RBM 4404)	24
TB-22: MCDM 4: Multi-Criteria Decision Making and Fuzzy Systems (HFB A)	25
TB-23: Tropical Geometry and Game Theory (i) (HFB B)	25
TB-24: Nonlinear Optimization 2 (HFB C)	25
TB-25: Maintainance in Energy (HFB D)	25
TB-26: Behavioral Inventory Management (i) (HFB Senat)	25

Thursday, 13:30-14:15

TC-22: Semi-Plenary Meinolf Sellmann (HFB A)	26
TC-23: Semi-Plenary Hans-Georg Zimmermann (HFB B)	26
TC-24: Semi-Plenary Alexander Martin (HFB C)	26
TC-25: Semi-Plenary Arne Strauss (HFB D)	26

Thursday, 14:45-16:15

TD-01: Applications of Uncertainty (WGS 101)	26
TD-02: Deployment of Optimization Models (WGS 102)	26
TD-03: Railway Transportation (WGS 103)	26
TD-04: Network Flows (WGS 104)	26
TD-05: Scheduling Problems (WGS 104a)	27
TD-06: Demand and Load Balancing in Networks (WGS 105)	27
TD-07: Computational Mixed-Integer Programming 3 (WGS 106)	27
TD-08: Urban Transport (WGS 107)	27

TD-09: Robust Combinatorial Optimization (i) (WGS 108)	27
TD-10: Online-Algorithms (WGS 108a)	27
TD-11: Vehicle Routing - Heuristics II (WGS 005)	28
TD-13: Smart Services and Internet of Things II (RVH I)	28
TD-14: Human Decision Making in Revenue Management (RVH II)	28
TD-15: Modelling and Simulation Applied to Transportation Systems (RVH III)	28
TD-16: Assembly Line Planning (RBM 1102)	28
TD-17: Planning Health Care Services (RBM 2204)	29
TD-18: Resource Planning and Production Planning (RBM 2215)	29
TD-19: Production Planning & Control (RBM 3302)	29
TD-20: Multiple Suppliers (RBM 4403)	29
TD-21: Advanced Flow Systems (RBM 4404)	29
TD-22: MCDM 5: Nonlinear Multiobjective Optimization (HFB A)	29
TD-23: Congestion Games (i) (HFB B)	30
TD-24: Nonlinear Optimization 3 (HFB C)	30
TD-25: Energy-oriented scheduling (HFB D)	30
TD-26: Behavioral Operations Management (i) (HFB Senat)	30

Friday, 9:00-10:30

FA-01: Inventory Routing (WGS 101)	31
FA-02: Optimization Applications (WGS 102)	31
FA-03: Warehouse Management (WGS 103)	31
FA-04: Random Keys and Integrated Approaches (WGS 104)	31
FA-05: Discrete Optimization for User-Interface Design (i) (WGS 104a)	31
FA-06: Assignments and Matchings (WGS 105)	31
FA-07: Computational Mixed-Integer Programming 4 (WGS 106)	32
FA-08: Electric Vehicles: Challenges (WGS 107)	32
FA-09: Variants of the TSP (i) (WGS 108)	32
FA-10: Large scale location and routing problems (i) (WGS 108a)	32
FA-11: Stochastic Vehicle Routing (WGS 005)	32
FA-13: Smart City and Environment (RVH I)	32
FA-14: Revenue Management in Transport and Logistics (RVH II)	33
FA-15: Modern Methods for Microsimulations (RVH III)	33
FA-17: Scheduling and Staffing 1 (RBM 2204)	33
FA-18: Cranes and Robots (RBM 2215)	33
FA-19: Production and Maintenance Planning (RBM 3302)	33
FA-20: Supply Chain Contracts and Finance (RBM 4403)	33
FA-21: Engineering Applications of OR Techniques (RBM 4404)	34
FA-22: MCDM 6: Software and Implementation (HFB A)	34
FA-23: Network Optimization under Competition (i) (HFB B)	34
FA-24: Optimal Control and Applications (HFB C)	34
FA-25: Demand Side Management (HFB D)	34
FA-26: Renewable Energy Sources and Decentralized Energy Systems (HFB Senat)	35

Friday, 10:50-11:35

FB-22: Semi-Plenary Anna Nagurny (HFB A)	35
FB-23: Semi-Plenary Sven Crone (HFB B)	35
FB-24: Semi-Plenary Dorothea Wagner (HFB C)	35
FB-25: Semi-Plenary Christoph Klingenberg (HFB D)	35

Friday, 11:45-13:15

FC-01: Long-haul Transportation (WGS 101)	36
FC-02: Delay Management and Route Choice under Delays (WGS 102)	36
FC-03: Green Transportation (WGS 103)	36
FC-04: Routing and Scheduling (WGS 104)	36
FC-05: Algorithms for Graph Problems (i) (WGS 104a)	36

FC-06: Cooperative Truck Logistics (WGS 105)	36
FC-07: Computational Mixed-Integer Programming 5 (WGS 106)	37
FC-08: Advanced Choice-Based Optimization (WGS 107)	37
FC-09: New Variants of the Traveling Salesman Problem Motivated by Emerging Applications (i) (WGS 108)	37
FC-10: Approximation Algorithms (WGS 108a)	37
FC-11: Analysis and Optimization of Road Traffic (WGS 005)	37
FC-13: Forecasting with Artificial Intelligence and Machine Learning (RVH I)	37
FC-14: Dynamic Pricing (RVH II)	38
FC-17: Scheduling and Staffing 2 (RBM 2204)	38
FC-18: Timetables and Aircraft (RBM 2215)	38
FC-19: Sales Planning (RBM 3302)	38
FC-20: Food Supply Chains (RBM 4403)	38
FC-22: MCDM 7: Economics and Finance (HFB A)	38
FC-23: Algorithmic Pricing (i) (HFB B)	39
FC-24: Continuous Optimization and Applications (HFB C)	39
FC-25: Energy and Optimization (HFB D)	39
FC-26: Water Networks (HFB Senat)	39

Friday, 13:45-15:00

FD-27: Plenary Lecture and Closing Ceremony (HFB Audimax)	40
---	----