VEROLOG2012 Programme at a glance

		-	2	3	4	5
Time	Slot Id	Aula 6.1	Aula 6.2	Aula 5.6	Aula 5.7	Aula 5.4
8 .						
10.00	MOA			Opening (6.1)		
11.00	MOB			Plenary Moehring (6.1)		
12.00				Lunch (Terrace)		
13.45	MOC	Loading and Split	Exact	Bike and Public Transport	DSS and Software	Applications 1
16.00				Break		S.
16.15	MOD	Extra Constraints 1	Synchronization 1	VRPs with Profit	Pickup and Delivery	Rich VRPs 1
18.00				Welcome Cocktail (Terrace)		
- 0/2						
8.30	TUA	Heuristics	Periodic VRPs	Applications 2	Variants	Trains et al.
10.45				Coffee Break		
11.15	TUB	Extra Constraints 2	Synchronization 2	Ships and Harbours	Visit Policies	Inventory
13.00				Lunch (Terrace)		
14.30	TUC		d	Plenary Laporte, Fischetti (6.1)	1)	
15.30	TUD			Tutorial Gruenert (6.1)		
20.00			Soc	Social Dinner (Cantina Bentivoglio)	glio)	
9.00	WEA	Extra Constraints 3	Synchronization 3	Rich VRPs 2	Dynamic and Stochastic	Arc Routing
10.45				Coffee Break	Ser.	
11.15	WEB			Plenary Gendreau (6.1)		
12.15				Lunch (Terrace)		
13.45	WEC	Green VRPs	VRPTW	Time Dependent VRPs	TSP	
15.30	WED			Closing (6.1)		

Technical Programme Overview

Plenary Lectures

Network Routing - Integrating Dynamic Network Flows and Scheduling, Rolf Moehring, Technical University, Berlin, Germany, Monday, June 18th, Aula 6.1

Thirty Years of Vehicle Routing Research: part I, Gilbert Laporte, CIRRELT and HEC Montréal, Canada, Tuesday, June 19th, Aula 6.1

Thirty Years of Vehicle Routing Research: part II, Matteo Fischetti, DEI, University of Padova, Italy, Tuesday, June 19th, Aula 6.1

An Overview of Stochastic Vehicle Routing, Michel Gendreau, MAGI and CIRRELT, École Polytechnique, Montréal, Canada, Wednesday, June 20th, Aula 6.1

Tutorial

GIS and digital maps for routing in commercial decision support systems, **Tore Gruenert** GTS Systems, Germany. Tuesday, June 19th, Aula 6.1

Software demonstrations

To be scheduled

Session Rooms

Room 1: Aula 6.1

Room 2: Aula 6.2

Room 3: Aula 5.6

Room 4: Aula 5.7

Room 5: Aula 5.4

Monday, June 18th, 2012

Session MOA1: Opening Session

time: 10:00-11:00 room: Aula 6.1 chair: Daniele Vigo

Session MOB1: Plenary Lecture

time: 11:00-12:00 room: Aula 6.1 chair: Paolo Toth

Network Routing - Integrating Dynamic Network Flows and Scheduling $Rolf\ M\ddot{o}hring$

Session MOC1: Loading Problems and Split Delivery

Contributed Session time: 13:45-16:00 room: Aula 6.1 chair: S. Salhi

- 1. A Hybrid Heuristic Algorithm for Truck Loading, Routing and Carrier Assignment *Dario Landa-Silva*
- 2. Vehicle routing with restricted loading capacities
 - A. Leendert Kok Joaquim Gromicho Jelke J. van Hoorn
- 3. Capacitated vehicle routing problem with two dimensional loading constraints and freight handling at service points (2LCVRP-H)

Ricardo Giesen Achille Limone Juan Carlos Muñoz

- 4. A vehicle routing problem with split loads and date windows *Julio Mar-Ortiz* José Luís González-Velarde Belarmino Adenso-Diaz
- 5. Solving the Split Delivery Vehicle Routing Problem Using Guided Route Generation Schemes for the Set Covering-Based Models

Said Salhi Nurul Hudabinti Mohamed Gábor Nagy

Session MOC2: Exact Approaches

Contributed Session time: 13:45-16:00 room: Aula 6.2 chair: G. Perboli

1. A polyhedral approach for generalizing the Miller-Tucker-Zemlin subtour elimination constraints for routing problems

Tolga Bektas Luís Gouveia

- 2. An Exact Algorithm for the Capacitated Arc Routing Problem with Deadheading Demand *Enrico Bartolini* Jean-François Cordeau Gilbert Laporte
- 3. An Optimization Algorithm for the Mixed Capacitated General Routing Problem *Demetrio Laganá* Adamo Bosco Roberto Musmanno Francesca Vocaturo
- 4. In-Depth Analysis of Pricing Problem Relaxations for the CARP **Stefan Irnich** Claudia Bode
- 5. Rich Packing Problems arising in Transportation and Logistics *Guido Perboli* Mauro Maria Baldi Teodor Gabriel Crainic Roberto Tadei

Session MOC3: Bike Sharing and Public Transportation

Contributed Session time: 13:45-16:00 room: Aula 5.6 chair: M. Boegl

- 1. Dynamic Repositioning in Bike-Sharing Systems *Tal Raviv* Dana Pessach Michal Tzur
- 2. Mathematical Formulations and Branch-and-Cut to Solve the Bike Rebalancing Problem *Stefano Novellani* Mauro Dell'Amico Eleni Hadjicostantinou Manuel Iori
- 3. An integrated approach for the design of Demand Responsive Transportation services *Rui Jorge Reis Gomes* Jorge Pinho de Sousa Teresa Galvão
- 4. An ALNS and route scheduling algorithms for the Dial–A–Ride Problem with Transfers *Fabien Lehuédé* Renaud Masson Olivier Péton
- 5. The school bus routing and scheduling problem with mixed loads and transfers *Michael Böegl* Karl F. Doerner Sophie N. Parragh

Session MOC4: Decision Support Systems and Software Applications

Contributed Session time: 13:45-16:00 room: Aula 5.7 chair: T. Pigden

1. Commercial Vehicle Routing Olli Bräysy Geir Hasle

- 2. E-services for freight transport optimisation in SMEs Flavio Bonfatti Stefano Dondi Paola Daniela Monari Alberto Preti
- 3. Routing algorithm implemented in a mobile that runs in local *Laia Descamps-Vila* Jordi Conesa A. Pérez-Navarro Joan Casas
- 4. A Library of Vehicle Routing Problems *Tim Pigden* Graham Kendall Ender Özcan Richard Eglese
- 5. Solution of Real-World Waste Collection Problems *Daniele Vigo*

Session MOC5: Applications of VRP 1

Contributed Session time: 13:45-16:00 room: Aula 5.4 chair: E. Malaguti

1. Choosing Profitable Customers in Routing Problems Menkes van den Briel Philip Kilby

2. A Vehicle Routing Modelling Approach For The Persistent Coverage Problem Using Multiple Aerial Platforms

Dimos Loukas Alessio Ishizaka Jana Ries Djamila Ouelhadj Ashraf Labib Dylan Jones

- 3. Vehicle Routing with redistributing equipment Jelke J. van Hoorn Joaquim Gromicho A. Leendert Kok
- 4. A Hierarchical Optimization and Clustering for Large Scale Disaster Relief ${\it Onur~Demir}$ Linet Ozdamar
- 5. A Procedure for the Control of a Public Transport Service *Enrico Malaguti* Andrea Lodi Nicolás E. Stier-Moses Tommaso Bonino

Session MOD1: VRPs with Extra Constraints 1

Invited Session time: 16:15-18:00 room: Aula 6.1 chair: J.J. Salazar

1. A Branch-and-Cut-and-Price algorithm for the Minimum Latency Capacitated Vehicle Routing Problem

Jens Lysgaard Sanne Wøhlk

- 2. A Column Generation Algorithm for Multi-Depot Vehicle Routing Problem with Inter-Depot Routes *Ibrahim Muter* Jean-François Cordeau Gilbert Laporte
- 3. Formulation and constructive heuristics for the close-open VRPTW **José A. Moreno** Julio Brito Airam Expósito Francisco J. Martínez
- 4. Solving the one-commodity Pickup-and-Delivery Single Vehicle Routing Problem with Split Demands

Juan José Salazar-González Beatriz Santos Hernández

Session MOD2: VRPs with Multiple Synchronization Constraints 1

Invited Session time: 16:15-18:00 room: Aula 6.2 chair: M. Drexl

1. The Driver Routing Problem Johan Oppen

2. Balancing a Dynamic Public Bike-Sharing System

Louis-Martin Rousseau Claudio Contardo Catherine Morency

3. A Comparison of a Two-Step Method with an Integrated Approach for Simultaneous Container and Truck Routing

Sebastian Sterzik Herbert Kopfer Won-Young Yun

4. Models and heuristics for policy-oriented support on urban delivery consolidation and synchronization

Jesus Gonzalez-Feliu Tai-Yu Ma Josep-Maria Salanova Grau

Session MOD3: VRPs with Profit

Invited Session time: 16:15-18:00 room: Aula 5.6 chair: M.G. Speranza

- 1. A Hybrid Heuristic for an Inventory-Routing Problem Claudia Archetti Luca Bertazzi Alain Hertz Maria Grazia Speranza
- 2. An ILP-Refined Tabu Search for the Directed Profitable Rural Postman Problem *Gianfranco Guastaroba* Claudia Archetti Maria Grazia Speranza
- 3. Metaheuristics for the Time-Dependent Orienteering Problem *Cédric Verbeeck* Pieter Vansteenwegen
- 4. The Capacitated Team Orienteering Problem with Incomplete Service *Maria Grazia Speranza* Claudia Archetti Nicola Bianchessi

Session MOD4: Pickup and Delivery Problems

Contributed Session time: 16:15-18:00 room: Aula 5.7 chair: G. Nagy

1. Modelling carrier decisions in an activity-based freight transportation framework: a pickup and delivery selection problem

Maes Tabitha An Caris Katrien Ramaekers Gerrit K. Janssens

- 2. The Pickup-and-Delivery Problem with Transshipment *Abdur Rais*
- 3. A New VRPPD Model and a Hybrid Heuristic Solution Approach for E-Tailing *Burcin Bozkaya* Seda Ugurlu Ronan Jouan de Kervenoael
- 4. The Vehicle Routing Problem with Divisible Deliveries and Pickups *Gábor Nagy* Niaz A. Wassan Maria Grazia Speranza Claudia Archetti

Session MOD5: Rich VRPs 1

Contributed Session time: 16:15-18:00 room: Aula 5.4 chair: W. Dullaert

1. Computational results with a Branch-and-cut code for the Single Truck and Trailer Routing Problem with Satellite Depots

Enrique Benavent Manuel Belenguer Antonio Martínez Christian Prins Caroline Prodhon Juan G. Villegas

- 2. Logistics of Clinical Testing: A Prioritized Bicriteria Heuristic for Collection for Processing Problem *Sibel Salman* E. Yücel E.L. Örmeci E.S. Gel
- 3. Adaptive Large Neighborhood Search Heuristic for Two-Echelon Vehicle Routing Problems Arising in City Logistics

Vera C. Hemmelmayr Jean-François Cordeau Teodor Gabriel Crainic

4. Integrated distribution network design: exploiting the benefits of joint location-routing optimization

Wout Dullaert Olli Bräysyi

Session MOE: Welcome Cocktail

time: 18:00-19:30 **room:** Terrace

Tuesday, June 19th, 2012

Session TUA1: Heuristic Approaches

Contributed Session time: 8:30-10:45 room: Aula 6.1 chair: H. Lourenco

1. Pheromone-based Heuristic Column Generation for the Vehicle Routing Problem with Black Box Feasibility

Florence Massen Yves Deville Pascal Van Hentenryck

- 2. Cross Entropy Based Algorithms for Vehicle Routing Problems *Marta Cabo Nodar* Edgar Possani
- 3. Hybrid Construction Heuristics for Vehicle Routing Problem *Hok Lie* Philip Kilby
- 4. Fleet Size and Mix Vehicle Routing Problem with Backhauls: A Set Partitioning based Heuristic *Niaz A. Wassan* Said Salhi Mutaz Hajarat
- 5. A Randomized Hybrid Algorithm based on Savings and Vehicle Assignment Policies for the Heterogeneous Vehicle Routing Problem

Helena R. Lourenço Jose Caceres-Cruz Alex Grasas Ángel A. Juan Mercé Roca

Session TUA2: Periodic VRPs

Contributed Session time: 8:30-10:45 room: Aula 6.2 chair: S. Binart

- 1. Algorithmic approaches to solving multi-period sales force master routing problems Angela Liza Rademeyer
- 2. MS-ILS for a periodic Vehicle Routing Problem with security constraints *Julien Michallet* Christian Prins Lionel Amodeo Farouk Yalaoui Gregoire Vitry
- 3. A constraint programming based approach for planning milk runs ${\it Anne~Meyer}$
- 4. Real-time optimization of reactive technician tours Sixtine Binart Pierre Dejax Michel Gendreau Frédéric Semet
- 5. Scheduling policies for periodic collection Cristina Nuñez del Toro Elena Fernández Stefan Nickel Jörg Kalcsics

Session TUA3: Applications of the VRP 2

Contributed Session time: 8:30-10:45 room: Aula 5.6 chair: M.G. Scutellá

1. Effective supporting decisions tools for Logistics and Global Supply Chain *Riccardo Accorsi* Riccardo Manzini Emilio Ferrari Arrigo Pareschi

- 2. Quadratic Models for Hub-Location Problems revisited Frank Baumann Jens Baudach Christoph Buchheim Uwe Clausen Fabian Meier
- 3. Integration of Allocation for Hubs and Multiple Travelling Salesman Problem with Simultaneous Pick Up and Delivery

Zuhal Kartal Servet Hasgul Andreas T. Ernst

- 4. Looking forward to the integration between production planning and distribution to multiple clients *Roberto Fernandes Tavares Neto* Marc Reimann
- 5. Joint assignment and scheduling models to home care *Maria Grazia Scutellà* Paola Cappanera

Session TUA4: Variants of the VRP

Contributed Session time: 8:30-10:45 room: Aula 5.7 chair: A.D. Lopez-Sanchez

1. A metaheuristic algorithm based on a Granular Tabu Search within a Variable Neigborhood Search for the capacitated location-routing problem

John Willmer Escobar Paolo Toth Rodrigo Linfati Maria Gulnara Baldoquin

- 2. A Rich Vehicle Routing Problem with Multiple Trips and Driver Shifts *Hande Küçükaydin* Yasemin Arda Yves Crama Fabrice Talla Nobibon
- 3. A Metaheuristic Method for the Multi Trip Vehicle Routing Problem *Diego Cattaruzza* Nabil Absi Dominique Feillet
- 4. Offshore Windfarm Infield Cable Layout An Application of Facility Location and Capacitated Open Vehicle Routing

Joanna Bauer Stian Skauge

5. A GRASP algorithm for a real-world Multi-objective Open Vehicle Routing Problem Ana Dolores López-Sánchez

Rafael Caballero Alfredo G. Hernández-Díaz Julián Molina Macarena Tejada Daniele Vigo

Session TUA5: Trains and Boats and Planes

Invited Session time: 8:30-10:45 room: Aula 5.4 chair: C. Paraskevopoulos

1. Aircraft Departure Scheduling with Blocking in the Holding Area *Chris N. Potts* Mohammad Mesgarpour Julia A. Bennell

- 2. A Variable Neighborhood Search Heuristic With Speed Optimisation For Tramp Ship Scheduling *Fotini Malliappi* Julia A. Bennell Chris N. Potts
- 3. Modified Shifting Bottleneck Algorithms for Train Scheduling and Rescheduling in the UK *Banafsheh Khosravi* Julia A. Bennell Chris N. Potts
- 4. Increasing nodal capacity by redesigning the train timetable: A case study on the UK's rail network *Dimitris Paraskevopoulos* Tolga Bektas Chris N. Potts John Armstrong John Preston
- 5. Risk Constrained Cash In Transit Vehicle Routing Problem Luca Talarico Kenneth Sörensen Johan Springael

Session TUB1: VRPs with Extra Constraints 2

Invited Session time: 11:15-13:00 room: Aula 6.1 chair: J.J. Salazar

- 1. A vehicle routing model with stop nodes Leonardo Berbotto Sergio García Francisco J. Nogales
- 2. Circuit based formulations for the Unit Demand Vehicle Routing Problem *Luís Gouveia* Maria Teresa Godinho Pierre Pesneau
- 3. New Exact and Heuristic Algorithms for the Multiple-Vehicle Production Routing Problem *Jean-François Cordeau* Yossiri Adulyasak Raf Jans
- 4. A Multi-Round Approach for solving the Heterogeneous Vehicle Routing Problem *Javier Faulin* Ángel A. Juan Alba Agustin Miguel A. Llorente

Session TUB2: VRPs with Multiple Synchronization Constraints 2

Invited Session time: 11:15-13:00 room: Aula 6.2 chair: M. Drexl

- 1. An Overview of Vehicle Routing Problems with Multiple Synchronization Constraints ${\it Michael~Drexl}$
- 2. Hybridization strategies for routing problems with pairwise synchronization constraints $Sophie\ N.\ Parragh\$ Karl F. Doerner
- 3. Experience with a simple heuristic framework for solving rich vehicle routing problems *Ulrich Derigs* Ulrich Vogel
- 4. A tabu search for the time-dependent multi-zone multi-trip vehicle routing problem with time windows

Phuong Khanh Nguyen Teodor Gabriel Crainic Michel Toulouse

Session TUB3: Vessel Routing and Harbour Operations

Invited Session time: 11:15-13:00 room: Aula 5.6 chair: P. Zuddas

- 1. Optimizing Dry-Port-based Freight Distribution through Service Network Design Models *Antonino Sgalambro* Teodor Gabriel Crainic Paolo Dell'Olmo Nicoletta Ricciardi
- 2. A Decision Support System for Intermodal Barge Transportation Operations *Ioana C. Bilegan* Teodor Gabriel Crainic
- 3. A heuristic algorithm for the routing of trucks with multiple container loads *Michela Lai* Teodor Gabriel Crainic Massimo Di Francesco Paola Zuddas
- 4. Optimizing routes for a research vessel

 Marta Mesquita Alberto Murta Ana Paias Laura Wise

Session TUB4: VRPs with Visit Policies

Invited Session time: 11:15-13:00 room: Aula 5.7 chair: M. Battarra

- 1. TSP with PickUp and Delivery with Handling Costs *Maria Battarra* Gunes Erdogan Daniele Vigo
- 2. An Adaptive Large Neighborhood Search Algorithm for the Pollution–Routing Problem *Emrah Demir* Tolga Bektas Gilbert Laporte
- 3. Path Relinking optimization method for Vehicle Routing and Scheduling Problems with Product Returns

Panagiotis P. Repoussis Afroditi K. Anagnostopoulou Christos D. Tarantilis

4. The Orienteering Problem with Variable Profits *Gunes Erdogan*

Session TUB5: Inventory Routing Problems

Contributed Session time: 11:15-13:00 room: Aula 5.4 chair: D. Feillet

- 1. Solving the consistent multi-vehicle inventory-routing problem *Leandro C. Coelho* Jean-François Cordeau Gilbert Laporte
- 2. Inventory routing for a single perishable item *Mahmood Rezaei* Tom Van Woensel
- 3. Selective and Periodic Inventory Routing Problem Ozge Tuncel Sibel Salman Onur Kaya Deniz Aksen
- 4. A stochastic inventory routing problem for infectious medical waste collection *Dominique Feillet* Pamela C. Nolz Nabil Absi

Session TUC1: Plenary Lecture

time: 14:30-15:30 room: Aula 6.1 chair: Daniele Vigo

Thirty years or vehicle routing research: part I

 $Gilbert\ Laporte$

Thirty years or vehicle routing research: part II

 $Matteo\ Fischetti$

Session TUD1: Tutorial

time: 15:30-19:00 room: Aula 6.1

GIS and digital maps for routing in commercial decision support systems $\it Tore~Gruenert$

Session MOE: Social Dinner

time: 20:00-22:00 room: Ristorante Cantina Bentivoglio. Via Mascarella, 4/B Bologna

Wednesday, June 20th, 2012

Session WEA1: VRPs with Extra Constraints 3

Invited Session time: 9:00-10:45 room: Aula 6.1 chair: J.J. Salazar

- 1. Exact algorithms for the Traveling Purchaser Problem with Multiple Stacks Jorge Riera-Ledesma Juan José Salazar-González María D. Batista-Galván
- 2. Models for a capacitated Steiner m-routing problem with profits ${\it Ana~Bautzer}$ Luís Gouveia Ana Paias José Manuel Pires
- 3. Large Neighborhood Search for Multi Depot Multi Period Vehicle Routing Problem with Time Windows

Belma Turan Richard Hartl Verena Schmid Karl F. Doerner

4. Double TSP with Multiple Stacks - Strategic Oscillation and Heuristic Search **Arne Lokketangen** Anolan Milanés Sebastián Urrutia

Session WEA2: VRPs with Multiple Synchronization Constraints 3

Invited Session time: 9:00-10:45 room: Aula 6.2 chair: M. Drexl

1. Comparing Recourse Strategies in Addressing Demand Uncertainty in Two-Tiered City Logistics Planning

Teodor Gabriel Crainic Fausto Errico Walter Rei Nicoletta Ricciardi

- 2. A mixed-integer linear model for integrated network design and routing $Julia\ Rieck$
- 3. Exact approaches for an inventory-routing problem with multiple vehicles **Nicola Bianchessi** Claudia Archetti Stefan Irnich Maria Grazia Speranza
- 4. A Mixed Integer Program for a variant of the Truck and Trailer Routing Problem with Time Windows

Julia Funke Tuomo Takkula

Session WEA3: Rich VRPs 2

Contributed Session time: 9:00-10:45 room: Aula 5.6 chair: G. Hasle

1. Hybridization of Column Generation and Ant Colony Optimization to solve a real-world vehicle routing problem

Lorenzo Ruinelli Matteo Salani Roberto Montemanni Luca Maria Gambardella

- 2. Solving Rich Vehicle Routing Problems in Professional Applications, Theory meets Real Life $Werner\ Heid$
- 3. Scheduling Drivers' Breaks and Rests under Additional Time Constraints in Theory and Practice **Sebastian Knopp** Alexander Kleff
- 4. The Gap Between Theory and Practice *Geir Hasle* Olli Bräysy

Session WEA4: Dynamic and Stochastic VRPs

Contributed Session time: 9:00-10:45 room: Aula 5.7 chair: N. Wollenberg

1. Partially Dynamic Vehicle Routing applied to Mobile Field Services using Web GIS and real time vehicle communication

Auro Castiglia Raduan Nicolau Dionisio Fares Gualda Claudio Barbieri da Cunha

2. A vehicle routing problem with dynamic multiple depots for the case of a temporary employment agency in the construction industry

Jana Ries

- 3. New measures for describing the structure of dynamic vehicle routing problems **Stefan Vonolfen** Michael Affenzeller
- 4. Resource Efficient Stochastic Vehicle Routing in Forwarding Agencies **Nadine Wollenberg** Rüdiger Schultz Uwe Clausen Sascha Wohlgemuth

Session WEA5: Arc Routing Problems

Contributed Session time: 9:00-10:45 room: Aula 5.4 chair: A. Corberan

- 1. The Cumulative Chinese Postman Problem Nikolaj van Omme Ángel Corberán José María Sanchís Michel Gendreau Patrick Soriano
- 2. Districting for Arc Routing Services **José Luís González-Velarde** Elena Fernández Gabriela García-Ayala Roger Z. Ríos-Mercado
- 3. Finding feasible solutions for arc routing a case study *Maria Candida Mouráo* Leonor Santiago Pinto
- 4. On the Stacker Crane Problem **Ángel Corberán** Thais Ávila Isaac Plana José María Sanchís

Session WEB1: Plenary Lecture

time: 11:15-12:15 room: Aula 6.1 chair: A. Corberan

An Overview of Stochastic Vehicle Routing $Michel\ Gendreau$

Session WEC1: Green VRPs

Contributed Session time: 13:45-15:30 room: Aula 6.1 chair: G. Righini

1. GreenNav—Energy-Optimal Routing for Electric Vehicle *Martin Leucker* René Schönfelder Martin Sachenbacher

2. Minimizing CO_2 Emissions versus Distance in a Recyclable Waste Collection System with Multiple Products and Depots

Tania Rodrigues Pereira Ramos Maria Isabel Gomes Ana Paula Barbosa-Póvoa

- 3. Incremental Updating of the Transit Algorithm *Leonid Antsfeld* Toby Walsh
- 4. An exact algorithm for the green vehicle routing problem Giovanni Righini Ángel Felipe Ortega Gregorio Tirado Domínguez M. Teresa Ortuño Sánchez

Session WEC2: VRPs with Time Windows

Contributed Session time: 13:45-15:30 room: Aula 6.2 chair: J. Brandao

- 1. Metaheuristics for the VRPTW with Multiple Service Workers Gerald Senarclens de Grancy Marc Reimann
- 2. Handling feasibility in genetic algorithms for VRP with time windows ${\it Gintaras~Vaira}~$ Olga Kurasova
- 3. Comparison of Initialization Methods for Vehicle Routing Problems with Time Windows $Christian\ Doppstadt$
- 4. Metaheuristics for the vehicle routing problem with backhauls and soft time windows Jos'e~Brand'ao

Session WEC3: Time Dependent VRPs

Contributed Session time: 13:45-15:30 room: Aula 5.6 chair: T. Vidal

- 1. Deterministic annealing algorithm for a time-dependent routing problem in drayage operations *Kris Braekers* An Caris Gerrit K. Janssens
- 2. A New Lower Bound for the Time-Dependent Fastest Path Problem *Emanuela Guerriero* Gianpaolo Ghiani
- 3. Ranking paths in stochastic time-dependent networks

 *Lars Relund Nielsen** Daniele Pretolani Kim Allan Andersen
- 4. Timing Problems and Vehicle Routing

 *Thibaut Vidal** Teodor Gabriel Crainic Michel Gendreau Christian Prins*

Session WEC4: Traveling Salesman Problems

Contributed Session time: 13:45-15:30 room: Aula 5.4 chair: V. Deineko

- 1. Comparison of Heuristics for the Colorful Traveling Salesman Problem **Andrea Raiconi** John Silberholz Raffaele Cerulli Monica Gentili Bruce Golden Si Chen
- 2. A bilevel optimization approach to the ring star problem *Herminia I. Calvete* Carmen Gal José A. Iranzo
- 3. Local search for the 2-period balanced Travelling Salesman Problem *Vladimir Deineko*

Session WED1: Closing Session

time: 15:30-16:00 room: Aula 6.1 chair: Daniele Vigo