

VeRoLog 2026

Bath, 6-9 July 2026

EURO Working Group on

Vehicle Routing and Logistics Optimization

Conference programme



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Welcome to VeRoLog 2026

It is with great pleasure that the School of Management at the University of Bath welcomes you to the 10th Annual Conference of the EURO Working Group on Vehicle Routing and Logistics Optimization (VeRoLog 2026). We trust that these four days will inspire innovative research ideas, cultivate lasting collaborations, and unveil rewarding career opportunities across our global operational research community.

This official programme outlines a comprehensive agenda of intellectual exchange, featuring four highly anticipated plenary sessions, over 120 rigorous scientific presentations, and two dedicated corporate sponsor technical sessions. We invite you to join us on Tuesday morning for our formal opening session, which will culminate in the presentation and celebration of the prestigious VeRoLog Doctoral Dissertation Award.

Beyond the scientific deliberations, we have curated a social programme to complement your experience. Our welcoming networking drinks will commence on Monday evening in the striking foyer of the School of Management immediately following the inaugural plenary talk. On Tuesday evening, you are warmly invited to discover the magnificent, historic streets of Bath – a designated UNESCO World Heritage city – via our complimentary guided walking tour. Finally, on Wednesday evening, we will embark on a spectacular excursion and formal gala dinner aboard the iconic SS Great Britain, beautifully preserved in the historic port of Bristol.

An event of this scale is only possible through the immense dedication of our colleagues. We extend our profound gratitude to Dr. Roberto Roberti, Chair of the Scientific Commission and Coordinator of VeRoLog, alongside former Coordinator Prof. Daniele Vigo for their invaluable guidance. Special appreciation is also owed to Lauren Mabley for her masterful administrative orchestration, and to our premier commercial sponsors, Hexaly and Ortec, whose generous backing remains vital to both this conference and the companion PhD Summer School.

Thank you for choosing to share your expertise and time with us at Bath. In an era where research travel requires substantial commitments, we are profoundly honored by your presence. May this week provide you with fresh inspiration to chart new and exciting routes in your work.

Prof. Maria Battarra

Chair of the Organising Committee



Program at a glance

Time Slot	Monday, July 6	Tuesday, July 7	Wednesday, July 8	Thursday, July 9
08:30 - 09:00	—	Registration (Hall)	—	—
09:00 - 09:30	—	Opening Session [RM: 10E0.17]	—	—
09:00 - 10:30	—	—	Parallel Sessions: • Heuristics [2] [10E0.17] • Elec. Vehicles [10E0.13] • Compartments [10E0.18] • Tactical Decisions [10E0.08]	Parallel Sessions: • Branch-&-Price [10E0.17] • Last-Mile Deliv. [10E0.13] • Machine Learn. [10E0.18] • Long-Haul Trans. [10E0.08]
09:30 - 10:30	—	Plenary: C. Osorio [RM: 10E0.17]	—	—
10:30 - 11:00	—	Coffee Break (Hall)	Coffee Break (Hall)	Coffee Break (Hall)
11:00 - 12:30	—	Parallel Sessions: • Exact Methods [10E0.17] • Sync. Deliveries [10E0.13] • Inventory Rout. [10E0.18] • Emergency Resp. [10E0.08] • PRIN-Supersonic [10E0.09]	Parallel Sessions: • Column Gen. [10E0.17] • Novel Tech. [10E0.13] • Consistent Rout. [10E0.18] • Waste Collection [10E0.08]	Parallel Sessions: • ALNS [10E0.17] • Lockers Last-Mile [10E0.13] • ML-Enhanced Rout [10E0.18] • Network Opt. [10E0.08]
12:30 - 13:30	—	Lunch (Hall)	Lunch (Hall)	Lunch (Hall)
13:30 - 14:30	—	Sponsor Sessions: • Hexaly [10E0.13] • ORTEC [10E0.18]	Plenary: N. Agatz [RM: 10E0.17]	Plenary: O. Jabali [RM: 10E0.17]
14:30 - 15:00	—	—	—	Closing Session [RM: 10E0.17]
14:30 - 16:00	—	Parallel Sessions: • General Solvers [10E0.17] • Urban Logistics [10E0.13] • Dynamic Problems [10E0.18] • Real-World Rout. [10E0.08] • Wind Energy [10E0.09]	Group Picture (Hall, 15:00) Excursion (Starts 15:30)	—
16:00 - 16:30	Registration (Hall)	Coffee Break (Hall)	↓	—
16:30 - 17:30	Plenary: A. Subramanian [RM: 10E0.17]	—	↓	—
16:30 - 18:00	—	Parallel Sessions: • Heuristics [1] [10E0.17] • People Trans. [10E0.13] • Collab. Routing [10E0.18] • Warehouse Mgmt [10E0.08]	↓	—
17:30 - 18:30	Welcome Cocktail	—	↓	—
18:30+	—	Walking Tour (19:30 Bath Abbey)	Gala Dinner (19:30 SS Great Britain)	—

List of conference events

■ MONDAY 6 JULY 2026

16:00 - 16:30 Registration - Workshop Registration

16:30 - 17:30 Plenary (10E0.17)– Anand Subramanian (chair, Daniele Vigo)

- On the Performance of 12 Programming Languages for Heuristic Optimization: A Computational Study
Presenter: Anand Subramanian, Universidade Federal da Paraiba

17:30 - 18:30 Welcome Cocktail (Hall)

■ TUESDAY, JULY 7, 2026

08:30 - 09:00 Registration - Workshop Registration

09:00 - 09:30 Opening Session + VeRoLog Doctoral Dissertation Award (10E0.17) - Maria Battarra, Roberto Roberti, Kris Braekers

09:30 - 10:30 Plenary (10E0.17) – Carolina Osorio (chair, Meng Meng)

- Tackling Industry-Scale Simulation-Based Optimization Problems with a Focus on Urban Mobility Applications
Presenter: Carolina Osorio, HEC Montréal / Google Research

10:30 - 11:00 Coffee break (Hall)

11:00 - 12:30 Exact Methods (10E0.17) - Prunelle Vogler

- A Branch-and-Benders-Cut Algorithm for the Cost-Based Selective Dial-a-Ride Problem
Presenter: Jian Zhang, Department of Engineering, King's College London
- The Competitive Two-Echelon Location Routing Problem
Presenter: ALBERTO MARCOLONGO, Aarhus University
- Optimizing Service Quality in Parcel Locker Networks via Multitrip Vehicle Routing
Presenter: Jim Schoppa, Chair of Analytics & Optimization, University of Augsburg
- A Labeling Algorithm for the Single-Agent Scheduling and Routing Problem
Presenter: Prunelle Vogler, Ecole Polytechnique Federale de Lausanne (EPFL)

11:00 - 12:30 Synchronized Deliveries (10E0.13) - Simona Mancini

- Synchronized Drone-Robot Routing to Accelerate Wilderness Search and Rescue
Presenter: Alena Otto, Technical University of Munich
- Synchronised Truck-Drone Tandem for Humanitarian Aid Delivery: A Stochastic Location–Routing Problem
Presenter: Hannan Tureci-Isik, University of Bath
- Synchronized Delivery and Installation Routing Problem with Vehicle Sharing
Presenter: Rym M'Hallah, King's College London
- Vehicle Routing with Shared Delivery Robots and Flexible Capacity in Last Mile Delivery
Presenter: Simona Mancini, Dipartimento di Ingegneria, Università degli Studi di Palermo, University of Klagenfurt, Department of Economics, Analytics and Operations Research

11:00 - 12:30 Inventory Routing (10E0.18) - Claudia Archetti

- A Hybrid Genetic Search for the Inventory Routing Problem
Presenter: Rafael Martinelli, Departamento de Informática, Pontifícia Universidade Católica do Rio de Janeiro (PUC-Rio)
- A Two-Phase Matheuristic Algorithm for the Location-Inventory Routing Problem
Presenter: Maria Truvolo, Università della Calabria [Arcavacata di Rende, Italia] = University of Calabria [Italy] = Université de Calabre [Italie]
- Inventory Routing of Perishable Products Using Multi-Compartment Vehicles
Presenter: Selina Sartor, Resilient Operations - University of Augsburg
- Large Neighborhood and Hybrid Genetic Search for Inventory Routing Problems
Presenter: Claudia Archetti, Department of Economics and Management, University of Brescia

11:00 - 12:30 Emergency Response & Search-and-Rescue (10E0.08) - Grigorios Kasapidis

- Wildfire Suppression: From Actual Landscapes to Network Optimisation Models
Presenter: Filipe Alvelos, Universidade do Minho
- Scheduling and Routing with Degradation-Triggered Job Arrivals: An Application to Forest Firefighting with an Unmanned Aerial Vehicle Fleet
Presenter: Rajan Batta, University at Buffalo
- Ambulance Location and Queuing Problem
Presenter: Ozge Safak Aydiner, University of Bath
- Optimising Emergency Response in Maritime Search and Rescue Operations
Presenter: Grigorios Kasapidis, University of Liverpool Management School

11:00 - 12:30 PRIN-Supersonic (10E0.09) - Maurizio Bruglieri

- Near Optimal Solutions for the Electric Vehicle Routing Problem with Time Windows, Multiple Recharging Technologies, and a Realistic Energy Consumption Rate
Presenter: ORNELLA PISACANE, Dipartimento di Ingegneria dell'Informazione, Università Politecnica delle Marche
- The Value of Monitoring Occupation and Booking Electric Recharging Stations
Presenter: Aurora Gashi, Politecnico di Torino
- Metaheuristics for the Electric Vehicle Routing Problem with Time Windows, Multiple Recharging Technologies, and Capacitated Recharging Stations
Presenter: Alice Moretti, Polytechnic University of Marche
- A Matheuristic for the Electric Vehicle Routing Problem with Capacitated Public Recharging Stations and Multiple Recharge Technologies
Presenter: Maurizio Bruglieri, Politecnico di Milano [Milan]

12:30 - 13:30 Lunch (Hall)

13:30 - 14:30 Hexaly Session (10E0.13) - Maxime Rougier, chair: Bruce Golden

- Hexaly, A New Kind of Global Optimization Solver
Presenter: Maxime Rougier, Hexaly

13:30 - 14:30 ORTEC Session (10E0.18) - Theodore Athanasopoulos, chair: Diego Cattaruzza

- Operations Research in Practice: Combining Optimization and Data-Driven Insights at ORTEC
Presenter: Theodore Athanasopoulos, ORTEC

14:30 - 16:00 General Solvers (10E0.17) - Jorge Riera-Ledesma

- Meta-Solver: The Next Generation of VRPSolver
Presenter: Teobaldo Bulhões, Universidade Federal da Paraíba

- Decremental State-Space Relaxation with Cross-Relaxation Label Pruning for the VRP Column Generation Pricing Subproblem

Presenter: Joseph Löfving, Volvo Group Trucks Technology

- Context-Conditioned Feasible Sets in Vehicle Routing

Presenter: Nafe Moradkhani, KEDGE Business School

- A Dual-Based Method for Detecting Time-Window–Infeasible Paths

Presenter: Jorge Riera-Ledesma, Universidad de La Laguna

14:30 - 16:00 Urban Logistics (10E0.13) - Fabien Lehuédé

- Robust Clustering of Pickup–Delivery Flows and Demand Forecasting for J–1 Operational Planning in Urban Logistics

Presenter: Janati Salma, Institut Inria Lille

- Integrated Clustering and Routing with Endogenous Mode Assignment for Large-Scale Utility Meter Reading

Presenter: Onur Demiray, EPFL

- Production Routing Problem with Mobile Storage Container: Application to the Distribution of Green Hydrogen

Presenter: Olivier Péton, Département Automatique, Productique et Informatique

- Load-Dependent Travel Time Estimation for Cargo Bike Routing in Urban Courier Operations

Presenter: Fabien Lehuédé, IMT Atlantique

14:30 - 16:00 Dynamic Problems (10E0.18) - Jean-François Cordeau

- Dynamic Routing and Charging Policies to Ensure Reliable Electric On-Demand Transport with Uncertain Access to Public Chargers

Presenter: Catherine Lorenz, Energy and Mobility Laboratory

- Sustainable Dynamic Pricing for Urban Shared Mobility-on-Demand Services

Presenter: David Fleckenstein, University of Augsburg

- An Approximate Dynamic Programming Approach for the Inventory Routing Problem under Demand and Perishability Uncertainty

Presenter: İlay Güvenç Pelit, Middle East Technical University

- The Dynamic Park-and-Loop Routing Problem

Presenter: Jean-François CORDEAU, HEC Montréal

14:30 - 16:00 Routing in the Real World (10E0.08) - Samuele Simone

- When Optimal Isn't Enough: Trust as the Missing Objective in Logistics Route Planning

Presenter: Cihan Tugrul Cicek, Microlise Limited

- “The Parcel's Secret Journey”: Demystifying the End-to-End Logistics Cycle for the Next Generation

Presenter: Shuya Zhong, University of Bath

- Safety Versus Optimality

Presenter: Larry Levy, RouteSmart Technologies, A FedEx Company

- On Predicting Manual Editing of Optimized VRP Solutions in Real-World Scenarios

Presenter: Samuele Simone, University of Milan

14:30 - 16:00 Wind Energy (10E0.09) - Ahmad Attar

- Can Less Efficient Turbines Be Used to Improve Wind Farms?

Presenter: Martin Dragseth Gregusson, University of Bergen

- Integrated Optimisation of Upstream Offshore Wind Supply Chains Using Mixed-Integer Linear Programming

Presenter: Said Baisa, University of Plymouth

- Routing and Scheduling Offshore Maintenance Operations with Crew Splitting and Transfers

Presenter: Miguel Lunet, Inesc tec

- A Bi-objective Multi-Depot VRP with Time Windows for Offshore Wind Maintenance Operations

Presenter: Ahmad Attar, College of Engineering, Mathematics and Physical Sciences

16:00 - 16:30 Coffee break (Hall)

16:30 - 18:00 Heuristics [1] (10E0.17) - Demetrio Laganà

- A Load-Dependent Truck-and-Robot Pollution Routing Problem with Road Angle Consideration
Presenter: Tobias Huf, University of Augsburg
- Matheuristic for a Planning and Routing Problem on Nodes and Edges.
Presenter: Clément JAMET GLEMIN, Laboratoire Angevin de Recherche en Ingénierie des Systèmes
- The CVRP Best Known Solution Challenge
Presenter: Rafael Martinelli, Pontificia Universidade Católica do Rio de Janeiro
- Parallel Metaheuristics for the Capacitated Vehicle Routing Problem
Presenter: Demetrio Laganà, Università della Calabria

16:30 - 18:00 People Transportation (10E0.13) - Jens Lysgaard

- Modeling and Optimization of Carpooling Problem: Tradeoff between Individual and Ecological Objectives
Presenter: Anna Joliot, Femto-st
- Service level requirements in real-life-sized bike sharing systems
Presenter: Jean-François Côté, Université Laval
- Reflections on Collaborating with Local Government on School Transportation
Presenter: Rhyd Lewis, Cardiff University
- The Service-Oriented School Bus Routing Problem: A Column Generation Heuristic
Presenter: Jens Lysgaard, Aarhus University

16:30 - 18:00 Collaborative Routing (10E0.18) - Marilène Cherkesly

- Balancing Efficiency and Equity in Collaborative Deliveries for Short Food Supply Chains
Presenter: Adrien Callico, Laboratoire d'Informatique Fondamentale et Appliquée de Tours
- A Bi-objective Online Multi-depot Sustainable Crowdshipping Problem
Presenter: Daniel Sanchez, Département Automatique
- Crowdsourced Delivery with Time Windows, Transshipment Nodes and Personalised Compensation
Presenter: Seyed-Mohammad Hosseini, Bayes Business School
- A comparison of Cost-Sharing Models in Horizontal Cooperative Vehicle Routing
Presenter: Marilène Cherkesly, Ecole des Sciences de la Gestion - UQAM

16:30 - 18:00 Applications in Warehouse Management (10E0.08) - Brice Cenci

- The Impact of Zoning Policies on Efficiency in Collaborative Picking Systems with Autonomous Mobile Robots
Presenter: Sina Khodaei, University of Bath
- An Efficient Heuristic for Block Movement in Puzzle-Based Storage Systems
Presenter: Baris Tandogan, Universität Wien
- Product Allocation and Picker Routing under Minimization of Energy Consumption
Presenter: Alessio Sclafani, Università degli Studi di Palermo
- Sequencing Operations with Due Dates in an Automated Warehouse to Reduce Energy Consumption
Presenter: Brice Cenci, Décision et Information pour les Systèmes de Production

19:30 - 21:30 Walking tour – central Bath

■ WEDNESDAY 8 JULY 2026

09:00 - 10:30 Heuristics [2] (10E0.17) - Jean Bertrand Gauthier

- Optimizing DSV's Land Transport Linehaul Network
Presenter: Katrin Heßler, DSV
- Heuristic methods for the Time Window Assignment Vehicle Routing Problem
Presenter: Billie-Jo Powers, Lancaster University
- An Operational Model and Metaheuristic for Low-Investment Freight-on-Tram Delivery
Presenter: Inès Van de Weyer, KULeuven
- Periodic Delivery Planning for Grocery Retail Stores with Time Constraints
Presenter: Jean Bertrand Gauthier, Geisenheim University

09:00 - 10:30 Electric Vehicles (10E0.13) - Sina Rastani

- Scheduling of Electric Truck Unloading and Charging Operations
Presenter: Antonino Andrea Carè, Politecnico di Milano
- The Electric Pickup and Delivery Problem with Energy Management
Presenter: Minakshi Punam Mandal, IIM Bangalore
- Policy-Driven Fleet Electrification in a Time-Dependent Mixed-Fleet Green VRP
Presenter: Kurt Pace Debono, University of Malta
- Modelling Terrain-Driven Energy Consumption in Electric Vehicle Routing with Time Windows
Presenter: Sina Rastani, Sheffield University Management School

09:00 - 10:30 Routing with Compartments and Packing (10E0.18) - Massimo Di Francesco

- A Branch-Price-and-Cut Algorithm for Multicompartment Pickup and Delivery Problems
Presenter: Marjolein Aerts-Veenstra, University of Groningen
- The Pickup and Delivery Problem with Packing Constraints: A Dominance-Based Feasibility Approach
Presenter: Patrick Stokkink, Delft University of Technology
- Mixed-Integer and Constraint Programming Solutions to the Two-Dimensional First-Order Non-Guillotine Packing Problem
Presenter: Adam McGregor, Deakin University
- A Branch-and-Price Algorithm for a Multi-Trip Multi-Compartment Vehicle Routing Problem
Presenter: Di Francesco Massimo, University of Cagliari

09:00 - 10:30 Tactical and Strategic Decision-Making (10E0.08) - Kris Braekers

- More Spaces or More Time? Optimal Location and Time-Based Capacity Design for On-Street Coach Parking Provision
Presenter: Amirreza Pashapour, University of Bath
- Optimisation in the Design of Pedestrian Zones
Presenter: Ekin Özgürbüz, University of Liverpool
- Optimizing Recharging Depot Location in a Robotic Delivery Service Extended by Public Transportation
Presenter: Yanir Zadickario, Tel Aviv University
- Joint Design of Fixed-Route and Demand-Responsive Transit Systems: the Effect of Integrated Decision-Making
Presenter: Kris Braekers, Hasselt University

10:30 - 11:00 Coffee break (Hall)

11:00 - 12:30 Exact and Heuristic Column Generation (10E0.17) - Christophe Duhamel

- A Branch-and-Price Approach for the Multi-Electric Vehicle Routing Problem with Dynamic Charging
Presenter: Vahid Akbari, Nottingham University Business School

- The Refrigerated Vehicle Routing Problem
Presenter: Niels De Jong, University of Groningen
- The Split-Delivery Vehicle Routing Problem with Service Choice: A Column Insertion Approach
Presenter: Jing Lyu, Lancaster University
- Three-Phase Matheuristic for the Truck Appointment Scheduling Problem in Container Terminals
Presenter: Christophe Duhamel, Université Le Havre Normandie

11:00 - 12:30 Novel Technologies (10E0.13) - Francesca Vocaturo

- Efficient Solutions for the Multiple Traveling Salesman Problem with Drone Stations
Presenter: Minh Hoàng Hà, National Economics University
- Solving Two New Variants of the Covering Salesman Problem with Nodes and Segments
Presenter: Hosang Song, University of Bath
- Synchronized Multimodal Urban Air Mobility
Presenter: Alice Raffaele, University of Padova
- Network Design for Drone Delivery in the Healthcare Sector
Presenter: Francesca Vocaturo, Università della Calabria

11:00 - 12:30 Consistent Routing (10E0.18) - Hernán Lespay

- Consistent Home Healthcare Routing with Patient Fluctuation
Presenter: Shohre Zehtabian, Otto von Guericke Universität Magdeburg
- The Consistency-Constrained Stochastic Vehicle Routing Problem: A Route-Based Decomposition Approach
Presenter: Zihao Guo, Institut Polytechnique de Paris
- Vehicle Routing Under the Paradigm of Energy Self-Consumption
Presenter: Alain Quilliot, Laboratoire d'Informatique
- Ensuring Service Consistency in Dynamic Last-Mile Logistics
Presenter: Hernán Lespay, Universidad de los Andes, Chile

11:00 - 12:30 Waste Collection (10E0.08) - Christina Hess

- Stochastic Routing Optimization for Organic Waste Collection
Presenter: Barbara Tomarchio, EPFL
- Delivery Pattern Planning in Grocery Retailing with Environmental Aspects
Presenter: Kailin Yang, Technical University of Munich
- Optimisation of Medical Waste Collection
Presenter: Rawa Alghamdi, University of Nottingham
- Sensor-Driven Periodic Waste Collection with Intermediate Facilities: A MIP and ALNS Approach
Presenter: Christina Hess, University of Vienna

12:30 - 13:30 Lunch (Hall)

13:30 - 14:30 Plenary (10E0.17) - Niels Agatz, chair Maria Battarra

- Demand Management in Routing and Transportation
Presenter: Niels Agatz, Rotterdam School of Management

15:00 - 15:30 Group picture (Hall)

15:30 - 23:00 Excursion and gala dinner at SS Great Britain

■ THURSDAY 9 JULY 2026

09:00 - 10:30 Branch-and-Price Algorithms (10E0.17) - Zhou Xu

- Branch-and-Price for Contract-Aware Multi-Period Service Network Design
Presenter: Nathan Davouse, Inria
- An Exact Algorithm for Vehicle Routing Problems with Temporal Dependency Constraints
Presenter: Loek Montfort, Vrije Universiteit Amsterdam
- Branch-and-Cut-and-Price Algorithm for the Vehicle Routing Problem with Multiple Time Windows
Presenter: Selin Hülagü, Vrije Universiteit Amsterdam
- An Enhanced Exact Algorithm for the Capacitated Multitrip Vehicle Routing Problem with Time Windows via Trip-Based Formulation
Presenter: Zhou Xu, Hong Kong Polytechnic University

09:00 - 10:30 Last-Mile Delivery (10E0.13) - Dirk Mattfeld

- Delivery Profiles in Attended Home Delivery: Integrating Demand Management and Vehicle Routing Problems with Delivery Options
Presenter: Kilian Hein, University of the Bundeswehr Munich
- Fast Approaches for Interactive Time Slotting
Presenter: Gustavo Hurovich, Erasmus University
- The Park-and-Loop Routing Problem with Time-Dependent Parking Time
Presenter: Panca Jodiawan, Yuan-Ze University
- Integration of Routing Preferences into the Tour Planning of Bicycle Courier Services
Presenter: Dirk Mattfeld, TU Braunschweig

09:00 - 10:30 Machine Learning Approaches (10E0.18) - Junyu Jiang

- A Deep Reinforcement Learning Model with Local Search for the Electric Vehicle Routing Problem
Presenter: Milad Faramarzzadeh, Dokuz Eylül University
- A Rule-Based Reinforcement Learning Framework for the Dynamic Electric Dial-a-Ride Problem on a Fixed Circuit
Presenter: Rotem Zohar, Tel Aviv University
- The Context-Aware Traveling Salesman Problem
Presenter: Davide Angioni, Oròbix srl, Bergamo
- Hierarchical Multi-Agent Reinforcement Learning for Dynamic Electric Vehicle Routing Problem with Stochastic Requests and Time Windows
Presenter: Junyu Jiang, South China University of Technology

09:00 - 10:30 Long-Haul Transportation (10E0.08) - Francesco Ventura

- Dynamic Capacity and Shipment Control for Middle-Mile Operations
Presenter: Charlotte Ackva, Otto-von-Guericke-Universität Magdeburg
- Optimization of Autonomous Trucking for Long-Haul Freight: Operational and Labor Implications
Presenter: Angel Perez-Vila, University of Cincinnati
- Solving the Service Network Design with Fleet and Emissions Management via Adaptive Large Neighborhood Search
Presenter: Christian Truden, University of Klagenfurt
- A New European Digital Freight Forwarding Paradigm: Multi-day VRP Under Cabotage, Driver-Time, and Tariff-Dependent Routing Constraints
Presenter: Francesco Ventura, Dipartimento di Ingegneria informatica automatica e gestionale

10:30 - 11:00 Coffee break (Hall)

11:00 - 12:30 Adaptive Large Neighborhood Search (10E0.17) - Rym M'Hallah

- A Decomposition-Based Matheuristic for the Passenger-Oriented Integrated Passenger–Freight Transport Problem
Presenter: Siqiao Li, Delft University of Technology
- Integrated Hub Location and Electric Pusher Routing for Multimodal Freight Transport on Inland Waterways
Presenter: Mir Mohammad Musavi, Eindhoven University of Technology
- Electric Vehicle Routing in the White Goods Sector: Balancing Service Levels, Outsourcing Costs, and Packaging Recovery
Presenter: Elvin Coban, Ozyegin University
- A New Taxonomy of Demand Responsive Transport Services
Presenter: Rym M'Hallah, King's College London

11:00 - 12:30 Last-Mile Delivery with Lockers (10E0.13) - Demetrio Laganà

- The Mobile Parcel Locker Replenishment Problem: A Time-Expanded Service Network Design Approach
Presenter: Ayse Nur Bakla, Catholic University of Eichstätt-Ingolstadt
- Dynamic Last-Mile Routing with Uncertain Parcel Locker Availability
Presenter: Sara Stoa, Università della Calabria
- Influence of Self-Pickup Incentives on Last-Mile Deliveries: a Route-Optimization-Based Simulation Approach Considering Consumer Behavior
Presenter: Raci Berk İslim, Sabanci University
- Using Parcel Lockers and Crowdshipping with In-Store Shoppers for Dynamic Pickup and Delivery
Presenter: Demetrio Laganà, University of Calabria

11:00 - 12:30 ML-Enhanced Routing (10E0.18) - Lukas Eveborn

- Routing Optimization with Unpalletized Cargo: a Real-World Application Using Unsupervised Loading Feasibility Learning
Presenter: Cristina Ondeï, Optit srl
- A Supervised Learning Framework for Accelerating Solvers and Metaheuristics in Routing Problems
Presenter: Stefan Voigt, Catholic University of Eichstätt-Ingolstadt
- Using Randomized Heuristics, Regression and Machine Learning to Estimate the Close Enough TSP Optimal Tour Length
Presenter: Hugo Mainguy, University of Maryland
- Heuristic Pricing by ML-Guided Subgraph Construction in Column Generation for Vehicle Routing Problems
Presenter: Lukas Eveborn, Linköping University

11:00 - 12:30 Optimization in Transportation Networks (10E0.08) - Malte Meistrell

- Coordination and Pricing Strategy in a Mobility as a Service (MaaS) System
Presenter: Min Ye, University of Bath
- Patrolling the Amazon River Navigation Network
Presenter: Andre Mendes, University of São Paulo
- Personalized Choice Set Generation for Multimodal Multi-Criteria Itinerary Planning
Presenter: Lara Schneider, University of Hildesheim
- Vehicle Routing in Industrial Break-Bulk Logistics– A Scoping Review of Model Realism and Research Gaps
Presenter: Malte Meistrell, TU Dortmund University

12:30 - 13:30 Lunch (Hall)

13:30 - 14:30 Plenary (10E0.17) – Ola Jabali, chair: Roberto Roberti

- Routing Electric Vehicles: Is There Anything Left for Us to Do?
Presenter: Ola Jabali, Politecnico di Milano

14:30 - 15:00 Closing Session (10E0.17) - Maria Battarra, Roberto Roberti

Plenary Speakers

Monday 6 July, 16:30-17:30

Room: 10E0.17



On the Performance of 12 Programming Languages for Heuristic Optimization: A Computational Study

Anand Subramanian, Universidade Federal da Paraíba

Chair: Prof Daniele Vigo

(Joint event with the VeRoLog PhD summer school)

Abstract: In this talk, we analyze the performance of a state-of-the-art metaheuristic algorithm for the minimum latency problem (MLP) (a.k.a. the deliveryman problem or the traveling repairman problem) across 12 programming languages, namely: C, C++, C#, Fortran, Go, Java, JavaScript, Julia, Lua, Python, Rust, and Swift. In contrast to most works on the topic, we are interested in examining the performance of a given implementation from a language standpoint, rather than from an algorithmic one. For each specific language, we provide a tailored implementation aimed at minimizing the total execution time, as well as a generic one that follows the same outline across all languages. To this end, we considered several aspects, such as cache and memory allocation, as well as potential pitfalls that can influence implementation performance. We report the results of extensive computational experiments comparing the performance of the 12 languages considered and provide relevant insights based on our findings.

Bio: Anand Subramanian is an Associate Professor at Universidade Federal da Paraíba (UFPB), Brazil. He received his B.Sc. degree in Mechanical Production Engineering from UFPB in 2006 and his M.Sc. degree in Production Engineering in 2008 from the same institution. He obtained his doctorate in Computing in 2012 from Universidade Federal Fluminense (UFF), Brazil. His doctoral thesis received the Honorable Mention Award from the Brazilian Ministry of Education. His research interests are mainly related to the development of heuristic, exact, and hybrid algorithms for combinatorial optimization problems. He is the head of the Logistics and Optimization Group (LOG) at UFPB and the author of 75 articles published in prestigious international journals. In 2016, he received the Highly Cited Research Award from Elsevier for the paper “A hybrid algorithm for a class of vehicle routing problems,” published in *Computers &*

Operations Research (C&OR). In addition, he supervised the works that won the award for the best undergraduate paper at the Brazilian OR Conference in 2015 and 2021, and that placed second in 2024 and 2025. He also supervised one of the finalist works for the INFORMS Undergraduate OR Prize in 2024. Moreover, he has been a member of the Editorial Advisory Board of *C&OR* and serves as Senior Editor for Optimization at the *Journal of the Brazilian Computer Society*. He has also been a member of the Magazine Editorial Advisory Board of *INFORMS* since 2025. He is also the organizer and host of the “Subject to” podcast and a columnist for *OR/MS Today* magazine by INFORMS.



Tuesday 7 July, 9:30-10:30

Room: 10E0.17

Tackling Industry-Scale Simulation-Based Optimization Problems with a Focus on Urban Mobility Applications

Carolina Osorio, HEC Montréal / Google Research

Chair: Meng Meng

Abstract: Problems where the objective function or the constraints are not analytically known but instead evaluated via a stochastic, and typically compute-costly, black-box are known as simulation-based optimization (SO) problems. This talk presents recent advances and open research questions in the fields of both continuous SO and combinatorial SO. We first present physics-informed machine learning (ML) methods that allow to search high-dimensional continuous spaces in a sample efficient way. In particular, we discuss how the design of physics-informed variance reduction methods for gradient estimation of generative models can accelerate convergence and robustify model training. We then present recent work that extends these ideas to tackle combinatorial SO problems. Various applications to urban mobility problems are showcased, including the design of urban mobility digital twins and the design of urban mobility services, such as car-sharing and ride-hailing. Finally, we identify research opportunities at the intersection of the fields of physics-informed ML and SO.

Bio: Osorio is a Full Professor at HEC Montreal, where Osorio holds the SCALE AI Research Chair in Artificial Intelligence for Urban Mobility and Logistics. Osorio is also a Staff Research Scientist at Google Research, where Osorio is research lead of Mobility AI. Prior to joining HEC Montreal, Osorio was a faculty at MIT for 9 years. Osorio has consulted for Alphabet's Sidewalk Labs, and has collaborated with top private and public sector, transportation and supply chain stakeholders, including Zipcar, Ford Motor Company, New York City Department of Transportation, and the San Diego planning agency SANDAG. Her research focuses on the design of ML and simulation-based optimization algorithms to tackle high-dimensional transportation problems. Osorio was recognized as an outstanding early-career engineer in the US by the National Academy of Engineering's EU-US Frontiers of Engineering Symposium, is the recipient of an *MIT Technology Review* EmTech Colombia TR35 Award and was on the GOOD 100 list of innovators in the category of "Minds That Are Hacking Our Surroundings for the Better". Since 2022, Osorio has been ranked yearly in the top 2% of the most cited scientists in the field of Operations Research, Transportation and Logistics.

Wednesday 8 July, 13:30-14:30

Room: 10E0.17



Demand Management in Routing and Transportation

Niels Agatz, Rotterdam School of Management

Chair: Maria Battarra

Abstract: Most vehicle routing problems treat customer demand as a fixed input. The vehicle routing problem with time windows, for example, seeks the shortest routes visiting all customers while respecting their time windows. Decades of research have produced sophisticated exact and heuristic solution methods for such settings. Yet there may be greater untapped potential in *managing* demand itself than in further optimizing routes for a given demand. Shifting focus from route optimization to demand management opens up a rich class of new and challenging problems, many of which must be solved in real time. In this talk, I survey this emerging space and discuss several problems I am actively working on.

Bio: Niels Agatz is a professor at the Rotterdam School of Management at Erasmus University and the scientific director of TKI Dinalog, a national institute that co-funds public-private research collaborations. He is also currently an area editor at *Transportation Science*. His research focuses on enhancing the sustainability of last-mile supply chains through the use of analytics and technology-driven innovation.

Thursday 9 July, 13:30-14:30

Room: 10E0.17



Routing Electric Vehicles: Is There Anything Left for Us to Do?

Ola Jabali, Politecnico di Milano

Chair: Roberto Roberti

Abstract: Routing electric vehicles (EVs) has garnered significant attention from our scientific community. In the context of urban logistics, this attention has primarily focused on accommodating EV autonomy by optimizing en-route charging decisions. However, improvements in EV ranges are making exclusive overnight charging at depots the preferred policy in practice. Indeed, this policy circumvents concerns regarding merchandise safety during charging, as well as uncertainties around en-route charger availability. In this talk we explore challenges involved in deploying EVs, while assuming they are exclusively charged at depots. We examine facets that are impactful in multi-period planning horizons. In particular, we study a fleet composition problem considering energy consumption variation due to ambient annual temperature variations. We complement this study by examining the impact of fast charges on the effective range of EVs. Furthermore, we explore the combination of non-linear charging functions with energy pricing functions stemming from time-of-use tariffs and examine their interplay on EV districting decisions.

Bio: Ola Jabali is an associate professor at the operations research and discrete optimization group at Politecnico di Milano. Her research interests deal with modelling and solving realistic problems arising in transportation, production and logistics. She is an affiliated professor at HEC Montréal, Canada, and a collaborating member of the Interuniversity Research Centre on Enterprise Networks, Logistics and Transportation (CIRRELT). She obtained her MSc. in industrial engineering from the Technion in 2006, and her Ph.D. in the same field in 2010 from the Eindhoven University of Technology. In 2011 she was a post-doctoral fellow at École Polytechnique de Montreal, Canada. From 2012 until 2016 she was an assistant professor at the Department of Logistics and Operations Management at HEC Montréal.

In 2016 she obtained the “Rita Levi Montalcini” fellowship for young researchers by the Italian Ministry of Education, Universities and Research. In 2023 she received the Stella Dafermos Mid-Career Award, by the Transportation Science and Logistics society of INFORMS. She is associate editor for *INFOR: Information Systems and Operational Transportation Research Part C: Emerging Technologies, and Transportation Science*.

Sponsor sessions:

Tuesday 7 July, 13:30-14:30

Room: 10E0.13



Hexaly, a New Kind of Global Optimization Solver

Maxime Rougier, Optimisation Scientist at Hexaly

Chair: Bruce Golden

Abstract: Hexaly Optimizer is a new kind of global optimization solver. Its modeling interface is nonlinear and set-oriented. In a sense, Hexaly APIs unify and extend modeling concepts from mixed-linear programming, nonlinear programming, constraint programming, and black-box optimization. Under the hood, Hexaly combines various exact and heuristic optimization methods, such as branch-and-bound, automatic Dantzig-Wolfe reformulation, column and row generation, propagation methods, local search, direct search, and surrogate modeling techniques. Regarding performance benchmarks, Hexaly distinguishes itself from leading solvers such as Gurobi, IBM Cplex, and Google OR Tools by delivering fast, scalable solutions for Routing, Scheduling, Packing, Clustering, and Location problems. This talk will introduce our set-based modeling formalism and show its scalability for large instances. We will then explore how the solver can use this formalism to automatically use state-of-the-art resolution techniques from the exact and heuristic fields.



Tuesday 7 July, 13:30-14:30

Room: 10E0.18

Operations Research in Practice: Combining Optimization and Data-Driven Insights at ORTEC

Theodore Athanasopoulos, ORTEC

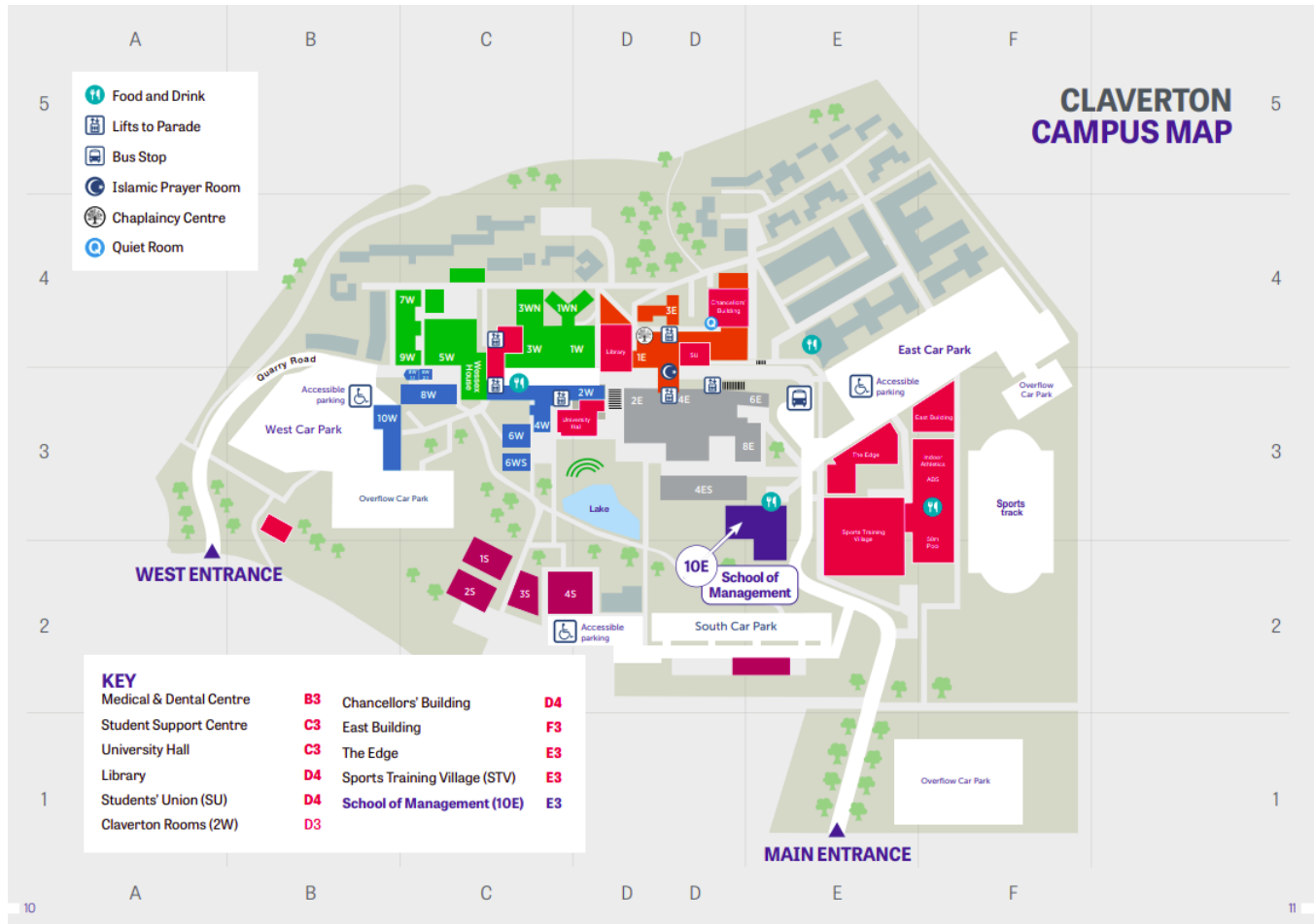
Chair: Diego Cattaruzza

Abstract: Operations Research (OR) is central to decision-making in logistics, however applying it in practice requires bridging the gap between theory and operational complexity. Real-world problems extend beyond standard formulations, and incorporate constraints such as driver regulations, congestion, interdependencies, and dynamic execution. This presentation explores how ORTEC applies OR to deliver business value to their customers by combining optimization with operational processes. Real-world examples demonstrate how optimization improves cost efficiency, resource utilization, and service performance. The role of data-driven insights and AI is also highlighted, showing how predictive inputs enhance optimization outcomes.

Bio: Dr. Theodore Athanasopoulos is an Expert Solutions Architect and Optimization Consultant at ORTEC, specializing in supply chain optimization, transportation planning, and vehicle routing solutions. With extensive international experience, he has designed and delivered large-scale optimization solutions for leading organizations across retail, logistics, and transportation. His work focuses on transforming complex routing challenges into efficient, data-driven operations through mathematical modeling and advanced analytics. He holds a PhD in Vehicle Routing Optimization and has contributed academic work in operations research and supply chain optimization.

Map of the Campus

All the talks, lunches and coffee breaks will take place at the School of Management (building 10E in the map below). The bus stop square is right in front of the building. If you require any further information, you can [consult our Welcome Pack](#).



Social events

We are looking forward to welcoming you to our social events!

Note that on Wednesday, at 15:00, **we will take a group picture in front of the School of Management**, so please make sure you can make it even if you do not join us for the excursion and social dinner after the photo.

Monday 6 July: reception drinks and welcome to the conference

Drinks and canapes will be served after the plenary of Dr Anand Subramanian, in the foyer of the School of Management. It will be an opportunity for us to welcome you to the School, and for you to meet and greet your colleagues and collaborators.



Tuesday 7 July: Walking tour of the historical city of Bath, departure at 19:30 from the Abbey Churchyard [location](#)

If you have registered, you will have the opportunity to have a walking guided tour of the historical city of Bath. Tour guides will depart from the square in front of Bath Abbey at 19:30, and the tour will last one hour. Please wear comfortable shoes and let's hope you will not need an umbrella.



1Photo by [Liv Cashman](#) on [Unsplash](#)

Wednesday 8 July: Excursion and gala dinner at the SS Great Britain, departure at 15:30 from the conference venue

If you have signed up for the excursion and gala dinner, we will depart from the School of Management at 15:30.

Before departure, we will take a group picture at 15:00, so please make sure you can make it even if you do not join us for the excursion and social dinner!

We will take coaches to the Bristol harbour, where the SS Great Britain is dry docked. You will have the opportunity to explore this historic vessel, then we will have drinks on the deck of the ship, followed by the gala dinner in the formal dining room.



[“SS Great Britain, Bristol Harbour”](#) by [Nick](#), CC BY-NC-SA 2.0

Internet access

If you work at a university, you can connect to eduroam (faster option)

To connect to eduroam whilst on campus:

- If your device has internet connection (such as a 4G mobile phone) you can use the [configuration tool](#)
- If your device does not have an internet connection (whilst on campus), you can connect to the 'Setup Assistant' wireless network in the Wi-Fi settings of your device

If you want to set up your device to use eduroam ahead of time, you can use:

- the [configuration tool](#) and press 'Setup' below 'eduroam'

You will need to be connected to the internet already to use the configuration tool. After using the configuration tool, your device should connect to eduroam automatically when you arrive on campus (including other University buildings) or at an affiliated organisation.

Otherwise, you can connect to the Wi-Fi as a visitor

You can use the 'WiFi Guest' network, following these steps:

1. Open the Wi-Fi settings on your device
2. Select 'WiFi Guest' from the list
3. Once you are connected, open your web browser and refresh the page. Your browser may open automatically
4. Select your authentication method to continue

All the information can be <https://www.bath.ac.uk/guides/connecting-to-wi-fi/>.

Omega: Special issue

The VeRoLog Conference invites participants to submit a full-length article to the OMEGA VeRoLog special issue. The special issue will be edited by Dr. Roberto Roberti and Dr. Diego Cattaruzza. The deadline for manuscript submission is 30 September 2026. Further information is available at [the Omega webpage](#).