

31st Belgian Conference on Operations Research
 KU Leuven, campus Brussels | 2-3 February 2017

Scientific schedule

Thursday February 2nd		
9:00-10:30	Welcome & opening Keynote talk by James J. Cochran	3107 (3 rd floor)
10:30-11:00	Coffee break	3102 (3 rd floor)
11:00-12:40	Parallel sessions (A)	3107, 3207, 3112 and 3212 (3 rd floor)
12:40-14:00	Lunch	3102 (3 rd floor)
13:00-14:00	ORBEL board meeting	3102 (3 rd floor)
14:00-15:40	Parallel sessions (B)	3107, 3207, 3112 and 3212 (3 rd floor)
15:40-16:10	Coffee break	3102 (3 rd floor)
16:10-17:25	Parallel sessions (C)	3107, 3207, 3112 and 3212 (3 rd floor)
17:30-18:30	ORBEL General Assembly	3107 (3 rd floor)
19:00-...	Conference dinner	Radisson Blu Royal Hotel

Friday February 3rd		
9:00-10:40	Parallel sessions (D)	3107, 3207, 3112 and 3212 (3 rd floor)
10:40-11:10	Coffee break	3102 (3 rd floor)
11:10-12:00	Parallel sessions (E)	3107, 3207, 3112 and 3212 (3 rd floor)
12:00-13:00	Lunch	3102 (3 rd floor)
13:00-14:15	Parallel sessions (F)	3107, 3207, 3112 and 3212 (3 rd floor)
14:15-14:45	Coffee break	3102 (3 rd floor)
14:45-16:30	Keynote talk by Marco Lübbecke, ORBEL Award and WOLSEY Award Closing	0105 (ground floor, left of the main entrance)

THURSDAY – PLENARY SESSION – 9:00 – 10:30

Room 3107 – chair: Jeroen Beliën

Welcome & opening (J. Beliën)

Active Learning in the Modern Operations Research Classroom: Reengaging and Reenergizing your Students and their Instructor!

Prof. James Cochran (University of Alabama)

THURSDAY - PARALLEL SESSIONS (A) – 11:00 – 12:40

Session A.1 [COMEX] – room 3107 – chair: Greet Vanden Berghe

A new approach to scheduling home care personnel in Flanders (F. Mosquera, P. Smet, G. Vanden Berghe)

Heuristics for crane scheduling and location assignment problems in automated warehouses (S. Heshmati, T. Toffolo, W. Vancroonenburg, G. Vanden Berghe)

A GRASP heuristic for the Discrete Ordered Median Problem: how to exploit it into an exact method (S. Deleplanque, M. Labbé, D. Ponce, J. Puerto)

Integer programming based heuristics for a leather industry nesting problem (T.A.M. Toffolo, T. Wauters, A. Martinez-Sykora)

Session A.2 [COMEX] – room 3112 – chair: Tomas Stützle

What types are there? Assigning individuals to preference types. (S. Cosaert)

The Transportation Problem with Conflicts (A.M.C. Ficker, F.C.R. Spieksma, G.J. Woeginger)

Tuning irace using surrogate tuning benchmarks (N. Dang, L. Pérez Cáceres, T. Stützle, P. De Causmaecker)

Automatic design of Hybrid Stochastic Local search algorithms (F. Pagnozzi)

Session A.3 – room 3207 – chair: Nico Vandaele

A mathematical model and a meta-heuristic for the Cast Batching Problem (N.-H. Quttineh)

Integrating the worst-case and best-case “Benefit-of-the-Doubt” class of Composite Indicators under the assumption of homotheticity (P. Verbunt)

Identification of collaborative shipping opportunities using BBaRT (S. Creemers, J. Beliën, G. Woumans, R. Boute)

Performance measurement of a rotavirus vaccine supply chain design by the integration of production capacity into the guaranteed service approach (S. Lemmens, C.J. Decouttere, N.J. Vandaele, M. Bernuzzi)

Session A.4 – room 3212 – chair: Pieter Vansteenwegen

Heuristic for real-time train rescheduling and local rerouting (S. Van Thielen, P. Vansteenwegen)

A cost-sensitive regression evaluation framework (W. Verbeke, C. Bravo)

MCDA in environmental assessment contexts (V. Brison, M. Pirlot)

Planning doctor shifts in hospitals: an approach focusing on perceived fairness (G. Delannay, R. De Landtsheer, C. Ponsard)

THURSDAY - PARALLEL SESSIONS (B) – 14:00 – 15:40

Session B.1 [COMEX] – room 3107 – chair: Kenneth Sörensen

Routing - efficient and simple (F. Arnold, K. Sörensen)

A ruin & recreate heuristic for capacitated vehicle routing problems (J. Christiaens, G. Vanden Berghe)

A statistical methodology for analysing heuristic algorithms (J. Corstjens, A. Caris, B. Depaire, K. Sörensen)

A Benders decomposition approach for locating stations in a one-way electric car sharing system (H. Çalık, B. Fortz)

Session B.2 – room 3112 – chair: Tarik Aouam

A robust optimization approach for scheduling surgeries in operating rooms (I. Marques, M.E. Captivo)

Optimal design of multiproduct batch plants using heuristic techniques (F. Verbiest, T. Cornelissens, J. Springael)

The proactive and reactive resource-constrained project scheduling problem: The crucial role of buffer-based reactions (M. Davari, E. Demeulemeester)

Optimizing raw materials and finished goods safety stocks in a production network under guaranteed service approach (K. Kumar, T. Aouam)

Session B.3 – room 3207 – chair: Filip Van Utterbeeck

Preconditioning linear systems from deformable 3D medical image registration using tensor train format (J. Buhendwa NY., A. Sartenaer)

Automatized cargo bundling for SMEs (P. De Bruecker, W. Verheyen)

Cost flow modeling for military manpower management (O. Mazari-Abdessameu, F. Van Utterbeeck, M.A. Guerry)

Simulation based manpower planning: an introduction using SimJulia (J. Van Kerckhoven, B. Lauwens, O. Mazari-Abdessameu, F. Van Utterbeeck)

Session B.4 [COMEX] – room 3212 – chair: Yves Crama

Testing Random Utility Models: an optimization problem (B. Smeulders)

Overcoming the threshold problem in ascending combinatorial auctions (B. Vangerven, D. Goossens, F. Spieksma)

A study of exact methods for container loading problems (E. Fernandes da Silva, T.A.M. Toffolo, G. Vanden Berghe, T. Wauters)

An exact and heuristic approach to the berth allocation problem in tank terminals (T. Van den Bossche, G. Vanden Berghe, J.F. Correcher, R. Álavarez-Valdés)

THURSDAY - PARALLEL SESSIONS (C) – 16:10 – 17:25

Session C.1 [COMEX] – room 3107 – chair: Hadrien Mélot

Scaling analysis of state-of-the-art TSP solvers (H.H. Hoos, T. Stützle)

Termination criteria for metaheuristics: Is computation time worth the time? (P. Leyman, P. De Causmaecker)

A column generation approach for the graph b-Coloring Problem (F. Sciamannini)

Session C.2 – room 3112 – chair: Inês Marques

Modeling a materials feeding system in a hospital operating room: a case study (V. Limère, L. Bonczar)

Spatial price competition in a waste management context (J. Van Engeland)

Vehicle Routing in practice (R. Dewil, S. Crevals, S. Van Malderen)

Session C.3 – room 3207 – chair: Roel Leus

Sequential testing of n-out-of-n systems: A comparison of exact approaches (S. Rostami, S. Creemers, R. Leus)

Risk-averse assortment and pricing decisions in production/inventory systems (H. Jalali, I. Van Nieuwenhuyse)

Gradient-based optimization of the expected profit in a serial production line with single sampling plans (S. De Vuyst, D. Claeys, B. Raa, E.H. Aghezzaf)

Session C.4 – room 3212 – chair: Pierre Kunsch

A supply chain network design model to assess horizontal cooperation (T. Hacardiaux, J.-S. Tancrez)

The impact of class size on academic underachievement: an advanced Stochastic Frontier approach (D. Mazrekaj, K. De Witte, T. Triebbs)

CIPS: a new method to handle robustness in the Job Scheduling problem (B.M. Méndez-Hernández, Y. Martínez-Jiménez, E.D Rodríguez-Bazan, P. Libin, A. Nowé)

FRIDAY - PARALLEL SESSIONS (D) – 9:00 – 10:40

Session D.1 [ORBEL award final] – room 3107 – chair: Frits Spieksma

Berth Allocation in a Stochastic Environment (B. Carette)

Project Scheduling in Stealth Mode (B. Hermans)

Statistical analysis of medical data using a multilevel approach (S. Itani)

Central allocation of pupils to schools (Liesa D'haeseleer)

Session D.2 – room 3112 – chair: Tony Wauters

Measuring and explaining school district performance. The influence of school district management and organizational practices. (K. De Witte, F. Schiltz)

Adaptive Large Neighborhood search for school bus routing problem with bus stop selection (M.S. Fallah Niasar, M. Sajadifar, A.H. Tayebi)

The impact of timetabling on the efficient evacuation of a building (H. Vermuyten, J. Beliën, T. Wauters)

A local search approach to the many-to-many carpooling problem (P. Smet)

Session D.3 – room 3207 – chair: Veronique Limère

Modelling and simulation of the ballistic protection limit V50 by exact sampling of an integrated Brownian motion process with drift (B. Lauwens, H. Hermosilla, J. Gallant)

The assembly line feeding problem: classification and literature review (N.A. Schmid, V. Limère)

Impact of joint purchasing on the competition among group members in the downstream market with incompleteness information (W. Peng, P. Chevalier, G. Merckx, A. Chaturvedi)

The expected loss revenue function of a MAP/PH/1/C queue (S. Dendievel, S. Hauptenne, G. Latouche, P.G. Taylor)

Session D.4 [COMEX] – room 3212 – chair: An Caris

The integration of individual partner objectives in the logistic optimisation model for a horizontal cooperation (C. Defryn, K. Sörensen)

Analysis and simulation of emergency departments: state of the art and prospects (L. Vanbrabant, K. Ramaekers, K. Braekers)

Multi-objective decisions for train load planning (H. Heggen, K. Braekers, A. Caris)

Joint order batching, routing, and picker scheduling in manual order picking systems (T. van Gils, K. Braekers, K. Ramaekers, A. Caris)

FRIDAY - PARALLEL SESSIONS (E) – 11:10 – 12:00

Session E.1 [COMEX] – room 3107 – chair: Patrick De Causmaecker

Dynamic pickup and delivery for internal hospital logistics (W. Vancroonenburg, E. Esprit, P. Smet, G. Vanden Berge)

A heuristic approach to the truck scheduling problem in a tank terminal (E.-J. Jacobs, J. Verstichel, T.A.M. Toffolo, T. Wauters, G. Vanden Berghe)

Session E.2 – room 3112 – chair: Ward Passchyn

Improving an Incomplete Road Network given a Budget Constraint (C. Luteyn, P. Vansteenwegen)

Optimizing buffer times and supplements in passenger robust timetabling (S. Burggraeve, P. Vansteenwegen)

Session E.3 – room 3207 – chair: Liesje De Boeck

The Inventory-Routing Problem with Transshipment (W. Lefever, E.H. Aghezzaf, K. Hadj-Hamou, B. Penz)

Adding a Sequence Variable to the Oscar.CBLS Engine (R. De Landtsheer, Y. Guyot, G. Ospina, C. Ponsard)

Session E.4 [COMEX] – room 3212 – chair: Lotte Verdonck

Scheduling procedures minimizing the total user ride time in dial-a-ride problems (Y. Molenbruch, K. Braekers, A. Caris)

Bidding on day-ahead markets : a dynamic programming approach (J. De Boeck, M. Labbé, É. Marcotte, P. Marcotte, G. Savard)

FRIDAY - PARALLEL SESSIONS (F) – 13:00 – 14:15

Session F.1 – room 3107 – chair: Michaël Schyns

Two-stage supply chain design with safety stock placement decisions (M. Schuster, S. Minner, J.-S. Tancrez)

Teaching linear programming through a Game of Thrones adventure (J. Beliën, L. De Boeck, J. Vermeir)

Scheduling the Australian Football League (D. Goossens, J. Kyngäs, K. Nurmi, N. Kyngäs)

Session F.2 [COMEX] – room 3112 – chair: Yasemin Arda

Considering human factors in planning problems for manual order picking systems: a state of the art (S. Vanheusden, K. Ramaekers, A. Caris)

Analyzing cost allocation techniques in intermodal barge networks for freight bundling (L. Verdonck, K. Ramaekers, A. Caris, D. Meers, C. Macharis)

An integrated approach for order picking and vehicle routing in a B2C e-commerce context (S. Moons, K. Ramaekers, A. Caris, Y. Arda)

Session F.3 – room 3207 – chair: Bernard Fortz

A step counting hill climbing heuristic for the practical Inventory Routing Problem (K. Van Wynendaele, S. Crevals, M. Defraye)

On the economics of circular economies (J. F. Garcia, J. Eyckmans, S. Rousseau)

~~**[CANCELLED] On the efficiency of local electricity markets: a bilevel optimization approach**~~ (H. Le Cadre)

Session F.4 – room 3212 – chair: Wouter Blondeel

Stochastic Constraint Programming with And-Or Branch-and-Bound (B. Babaki, T. Guns, L. De Raedt)

A branch-and-price algorithm for parallel machine scheduling using ZDDs and generic branching (D. Kowalczyk, R. Leus)

Insights of Flexible Line Planning (E. Avila Ordóñez, P. Vansteenwegen, C.M.J. Tampère)

FRIDAY – PLENARY SESSION – 14:45 – 16:30

Room 0105 – chair: Dries Goossens

Branch-and-Price

Prof. Marco Lübbecke (RWTH Aachen University)

ORBEL Award ceremony (F. Spieksma)

Sponsored by OM Partners

Wolsey Award ceremony (S. Monthui)

Sponsored by N-SIDE