

ORBEL31

KU LEUVEN

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

Practical information/scientific schedule



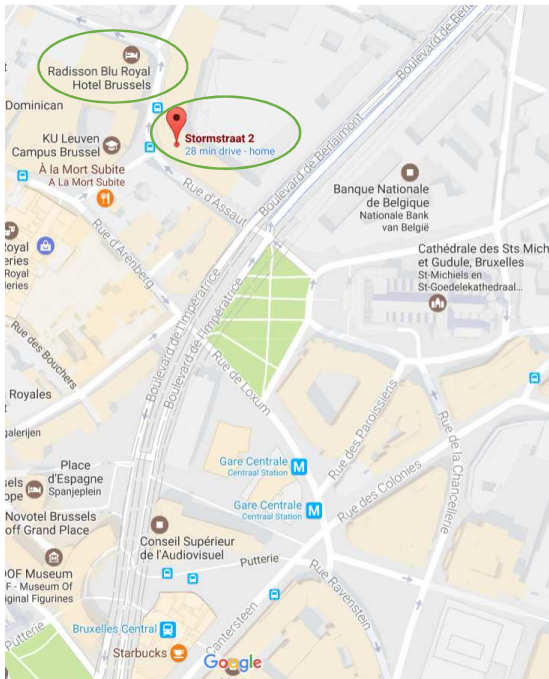
Conference venue information

The conference takes place at the **3rd floor and ground floor of the Hermes Building** of the Faculty of Economics and Business of KU Leuven, campus Brussels (*Address: Stormstraat 2, 1000 Brussels*). **The activities take place in the following rooms:**

- **Welcome & opening and keynote talk by James J. Cochran:** 3107 (3rd floor)
- **Parallel sessions:** 3107, 3207, 3112 and 3212 (3rd floor)
- **ORBEL Award final:** 3107 (3rd floor)
- **Registration, coffee breaks, lunches, sponsor room:** 3102 (3rd floor)
- **ORBEL board meeting:** 3101 (3rd floor)
- **ORBEL General Assembly:** 3107 (3rd floor)
- **Keynote talk by Marco Lübbecke, ORBEL Award ceremony, WOLSEY Award ceremony and Closing:** 0105 (ground floor, left of main entrance).

Conference dinner (Thursday February 2nd, from 7 pm on)

The conference dinner takes place at the Radisson Blu Royal Hotel nearby (*Address: Wolvengracht 47, 1000 Brussels*).



Conference proceedings

The abstract book (with ISBN 9789090302164) distributed upon conference registration in the conference bags contains the extended abstracts.

Emergency

In case of emergency you can call the general university emergency numbers:

- 1250 or 1393 internal phone (using a phone within the building of the conference venue)
- 003222101250 or 003222101393 external phone (using your own mobile).

Internet access

If you have no ODISEE nor an Eduroam account, internet access is possible using your own laptop by creating a guest account:

-surf to <http://guestportal.odisee.be>

-choose create guest account (=“Gastaccount aanmaken”)

-fill in your first name (=“Voornaam”), surname (=“Achternaam”), email address (=“E-mailadres”) and phone number (=“GSM-nummer”); it is important that your phone number is filled in correctly, otherwise you will not receive the information about your login

-after all the fields have been filled in, click on register (=“Registreren”)

-after registration you will receive a text message on your phone with your login and password

-you can now log in on the guest portal ODISEEGuest with the received information.

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	3101 (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	ORBEL Award final and 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 ceremony WOLSEY Award ceremony Closing	0105 (ground floor, left of the main entrance)

SCIENTIFIC SCHEDULE: PLENARY/PARALLEL SESSIONS

PLENARY/PARALLEL SESSIONS February 2nd – room 3107				
9:00-10:30 chair: Jeroen Beliën	<p align="center">Welcome & opening (J. Beliën)</p> <p align="center">Active learning in the modern Operations Research classroom: reengaging and reenergizing your students and their instructor!</p> <p align="center">Prof. James J. Cochran (University of Alabama)</p>			
11:00-12:40 Session A.1 [COMEX] chair: Greet Vanden Berghe	<p align="center">A new approach to scheduling home care personnel in Flanders</p> <p align="center">(F. Mosquera, P. Smet, G. Vanden Berghe)</p>	<p align="center">Heuristics for crane scheduling and location assignment problems in automated warehouses</p> <p align="center">(S. Heshmati, T. Toffolo, W. Vancroonenburg, G. Vanden Berghe)</p>	<p align="center">A GRASP heuristic for the Discrete Ordered Median Problem: how to exploit it into an exact method</p> <p align="center">(S. Deleplanque, M. Labbé, D. Ponce, J. Puerto)</p>	<p align="center">Integer programming based heuristics for a leather industry nesting problem</p> <p align="center">(T.A.M. Toffolo, T. Wauters, A. Martinez-Sykora)</p>
14:00-15:40 Session B.1 [COMEX] chair: Kenneth Sörensen	<p align="center">Routing - efficient and simple</p> <p align="center">(F. Arnold, K. Sörensen)</p>	<p align="center">A ruin & recreate heuristic for capacitated vehicle routing problems</p> <p align="center">(J. Christiaens, G. Vanden Berghe)</p>	<p align="center">A statistical methodology for analysing heuristic algorithms</p> <p align="center">(J. Corstjens, A. Caris, B. Depaire, K. Sörensen)</p>	<p align="center">A Benders decomposition approach for locating stations in a one-way electric car sharing system</p> <p align="center">(H. Çalık, B. Fortz)</p>
16:10-17:25 Session C.1 [COMEX] chair: Hadrien Mélot	<p align="center">Scaling analysis of state-of-the-art TSP solvers</p> <p align="center">(H.H. Hoos, T. Stützle)</p>	<p align="center">Termination criteria for metaheuristics: Is computation time worth the time?</p> <p align="center">(P. Leyman, P. De Causmaecker)</p>	<p align="center">A column generation approach for the graph b-Coloring Problem</p> <p align="center">(F. Sciamannini)</p>	
17:30-18:30	ORBEL General Assembly			

SCIENTIFIC SCHEDULE: PLENARY/PARALLEL SESSIONS

PARALLEL SESSIONS February 2nd – room 3112				
<p>11:00-12:40 Session A.2 [COMEX] chair: Tomas Stütze</p>	<p>What types are there? Assigning individuals to preference types. (S. Cosaert)</p>	<p>The Transportation Problem with Conflicts (A.M.C. Ficker, F.C.R. Spieksma, G.J. Woeginger)</p>	<p>Tuning irace using surrogate tuning benchmarks (N. Dang, L. Pérez Cáceres, T. Stütze, P. De Causmaecker)</p>	<p>Automatic design of Hybrid Stochastic Local search algorithms (F. Pagnozzi)</p>
<p>14:00-15:40 Session B.2 chair: Tarik Aouam</p>	<p>A robust optimization approach for scheduling surgeries in operating rooms (I. Marques, M.E. Captivo)</p>	<p>Optimal design of multiproduct batch plants using heuristic techniques (F. Verbiest, T. Cornelissens, J. Springael)</p>	<p>The proactive and reactive resource-constrained project scheduling problem: The crucial role of buffer- based reactions (M. Davari, E. Demeulemeester)</p>	<p>Optimizing raw materials and finished goods safety stocks in a production network under guaranteed service approach (K. Kumar, T. Aouam)</p>
<p>16:10-17:25 Session C.2 chair: Inês Marques</p>	<p>Modeling a materials feeding system in a hospital operating room: a case study (V. Limère, L. Bonczar)</p>	<p>Spatial price competition in a waste management context (J. Van Engeland)</p>	<p>Vehicle Routing in practice (R. Dewil, S. Crevals, S. Van Malderen)</p>	

SCIENTIFIC SCHEDULE: PLENARY/PARALLEL SESSIONS

PARALLEL SESSIONS February 2nd – room 3207				
<p>11:00-12:40 Session A.3</p> <p>chair: Nico Vandaele</p>	<p>A mathematical model and a meta-heuristic for the Cast Batching Problem</p> <p>(N.-H. Quttineh)</p>	<p>Integrating the worst-case and best-case “Benefit-of-the-Doubt” class of Composite Indicators under the assumption of homotheticity</p> <p>(P. Verbunt)</p>	<p>Identification of collaborative shipping opportunities using BBaRT</p> <p>(S. Creemers, J. Beliën, G. Woumans, R. Boute)</p>	<p>Performance measurement of a rotavirus vaccine supply chain design by the integration of production capacity into the guaranteed service approach</p> <p>(S. Lemmens, C.J. Decouttere, N.J. Vandaele, M. Bernuzzi)</p>
<p>14:00-15:40 Session B.3</p> <p>chair: Filip Van Utterbeeck</p>	<p>Preconditioning linear systems from deformable 3D medical image registration using tensor train format</p> <p>(J. Buhendwa NY., A. Sartenaer)</p>	<p>Automatized cargo bundling for SMEs</p> <p>(P. De Bruecker, W. Verheyen)</p>	<p>Cost flow modeling for military manpower management</p> <p>(O. Mazari-Abdessameu, F. Van Utterbeeck, M.A. Guerry)</p>	<p>Simulation based manpower planning: an introduction using SimJulia</p> <p>(J. Van Kerckhoven, B. Lauwens, O. Mazari-Abdessameu, F. Van Utterbeeck)</p>
<p>16:10-17:25 Session C.3</p> <p>chair: Roel Leus</p>	<p>Sequential testing of n-out-of-n systems: A comparison of exact approaches</p> <p>(S. Rostami, S. Creemers, R. Leus)</p>	<p>Risk-averse assortment and pricing decisions in production/inventory systems</p> <p>(H. Jalali, I. Van Nieuwenhuysse)</p>	<p>Gradient-based optimization of the expected profit in a serial production line with single sampling plans</p> <p>(S. De Vuyst, D. Claeys, B. Raa, E.H. Aghezzaf)</p>	

SCIENTIFIC SCHEDULE: PLENARY/PARALLEL SESSIONS

PARALLEL SESSIONS February 2nd – room 3212				
<p>11:00-12:40 Session A.4</p> <p>chair: Pieter Vansteenwegen</p>	<p>Heuristic for real-time train rescheduling and local rerouting</p> <p>(S. Van Thielen, P. Vansteenwegen)</p>	<p>A cost-sensitive regression evaluation framework</p> <p>(W. Verbeke, C. Bravo)</p>	<p>MCDA in environmental assessment contexts</p> <p>(V. Brison, M. Pirlot)</p>	<p>Planning doctor shifts in hospitals: an approach focusing on perceived fairness</p> <p>(G. Delannay, R. De Landtsheer, C. Ponsard)</p>
<p>14:00-15:40 Session B.4 [COMEX]</p> <p>chair: Yves Crama</p>	<p>Testing Random Utility Models: an optimization problem</p> <p>(B. Smeulders)</p>	<p>Overcoming the threshold problem in ascending combinatorial auctions</p> <p>(B. Vangerven, D. Goossens, F. Spieksma)</p>	<p>A study of exact methods for container loading problems</p> <p>(E. Fernandes da Silva, T.A.M. Toffolo, G. Vanden Berghe, T. Wauters)</p>	<p>An exact and heuristic approach to the berth allocation problem in tank terminals</p> <p>(T. Van den Bossche, G. Vanden Berghe, J.F. Correcher, R. Álvarez-Valdés)</p>
<p>16:10-17:25 Session C.4</p> <p>chair: Pierre Kunsch</p>	<p>A supply chain network design model to assess horizontal cooperation</p> <p>(T. Hacardiaux, J.-S. Tancrez)</p>	<p>The impact of class size on academic underachievement: an advanced Stochastic Frontier approach</p> <p>(D. Mazrekaj, K. De Witte, T. Triebs)</p>	<p>CIPS: a new method to handle robustness in the Job Scheduling problem</p> <p>(B.M. Méndez-Hernández, Y. Martínez-Jiménez, E.D Rodríguez-Bazan, P. Libin, A. Nowé)</p>	

SCIENTIFIC SCHEDULE: PLENARY/PARALLEL SESSIONS

PARALLEL SESSIONS February 3rd – room 3107				
<p>9:00-10:40 Session D.1 [ORBEL Award final] chair: Frits Spieksma</p>	<p>Berth allocation in a stochastic environment (B. Carette)</p>	<p>Project scheduling in stealth mode (B. Hermans)</p>	<p>Statistical analysis of medical data using a multilevel approach (S. Itani)</p>	<p>Central allocation of pupils to schools (L. D'haeseleer)</p>
<p>11:10-12:00 Session E.1 [COMEX] chair: Patrick De Causmaecker</p>	<p>Dynamic pickup and delivery for internal hospital logistics (W. Vancroonenburg, E. Esprit, P. Smet, G. Vanden Berge)</p>	<p>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)</p>		
<p>13:00-14:15 Session F.1 chair: Michaël Schyns</p>	<p>Two-stage supply chain design with safety stock placement decisions (M. Schuster, S. Minner, J.-S. Tancrez)</p>	<p>Teaching linear programming through a Game of Thrones adventure (J. Beliën, L. De Boeck, J. Vermeir)</p>	<p>Scheduling the Australian Football League (D. Goossens, J. Kyngäs, K. Nurmi, N. Kyngäs)</p>	

SCIENTIFIC SCHEDULE: PLENARY/PARALLEL SESSIONS

PARALLEL SESSIONS February 3rd – room 3112				
<p>9:00-10:40 Session D.2</p> <p>chair: Tony Wauters</p>	<p>Measuring and explaining school district performance. The influence of school district management and organizational practices. (K. De Witte, F. Schiltz)</p>	<p>Adaptive Large Neighborhood search for school bus routing problem with bus stop selection (M.S. Fallah Niasar, M. Sajadifar, A.H. Tayebi)</p>	<p>The impact of timetabling on the efficient evacuation of a building (H. Vermuyten, J. Beliën, T. Wauters)</p>	<p>A local search approach to the many-to-many carpooling problem (P. Smet)</p>
<p>11:10-12:00 Session E.2</p> <p>chair: Ward Passchyn</p>	<p>Improving an Incomplete Road Network given a Budget Constraint (C. Luteyn, P. Vansteenwegen)</p>	<p>Optimizing buffer times and supplements in passenger robust timetabling (S. Burggraeve, P. Vansteenwegen)</p>		
<p>13:00-14:15 Session F.2 [COMEX]</p> <p>chair: Yasemin Arda</p>	<p>Considering human factors in planning problems for manual order picking systems: a state of the art (S. Vanheusden, K. Ramaekers, A. Caris)</p>	<p>Analyzing cost allocation techniques in intermodal barge networks for freight bundling (L. Verdonck, K. Ramaekers, A. Caris, D. Meers, C. Macharis)</p>	<p>An integrated approach for order picking and vehicle routing in a B2C e-commerce context (S. Moons, K. Ramaekers, A. Caris, Y. Arda)</p>	

SCIENTIFIC SCHEDULE: PLENARY/PARALLEL SESSIONS

PARALLEL SESSIONS February 3rd – room 3207				
<p>9:00-10:40 Session D.3</p> <p>chair: Veronique Limère</p>	<p>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)</p>	<p>The assembly line feeding problem: classification and literature review (N.A. Schmid, V. Limère)</p>	<p>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)</p>	<p>The expected loss revenue function of a MAP/PH/1/C queue (S. Dendievel, S. Hauptenne, G. Latouche, P.G. Taylor)</p>
<p>11:10-12:00 Session E.3</p> <p>chair: Liesje De Boeck</p>	<p>The Inventory-Routing Problem with Transshipment (W. Lefever, E.H. Aghezzaf, K. Hadj-Hamou, B. Penz)</p>	<p>Adding a Sequence Variable to the Oscar.CBLS Engine (R. De Landtsheer, Y. Guyot, G. Ospina, C. Ponsard)</p>		
<p>13:00-14:15 Session F.3</p> <p>chair: Bernard Fortz</p>	<p>A step counting hill climbing heuristic for the practical Inventory Routing Problem (K. Van Wynendaele, S. Crevals, M. Defraye)</p>	<p>On the economics of circular economies (J. F. Garcia, J. Eyckmans, S. Rousseau)</p>	<p>CANCELLED On the efficiency of local electricity markets: a bilevel optimization approach (H. Le Cadre)</p>	

SCIENTIFIC SCHEDULE: PLENARY/PARALLEL SESSIONS

PARALLEL SESSIONS February 3rd – room 3212				
<p>9:00-10:40 Session D.4 [COMEX]</p> <p>chair: An Caris</p>	<p>The integration of individual partner objectives in the logistic optimisation model for a horizontal cooperation (C. Defryn, K. Sörensen)</p>	<p>Analysis and simulation of emergency departments: state of the art and prospects (L. Vanbrabant, K. Ramaekers, K. Braekers)</p>	<p>Multi-objective decisions for train load planning (H. Heggen, K. Braekers, A. Caris)</p>	<p>Joint order batching, routing, and picker scheduling in manual order picking systems (T. van Gils, K. Braekers, K. Ramaekers, A. Caris)</p>
<p>11:10-12:00 Session E.4 [COMEX]</p> <p>chair: Lotte Verdonck</p>	<p>Scheduling procedures minimizing the total user ride time in dial-a-ride problems (Y. Molenbruch, K. Braekers, A. Caris)</p>	<p>Bidding on day-ahead markets : a dynamic programming approach (J. De Boeck, M. Labbé, É. Marcotte, P. Marcotte, G. Savard)</p>		
<p>13:00-14:15 Session F.4</p> <p>chair: Wouter Blondeel</p>	<p>Stochastic Constraint Programming with And-Or Branch-and-Bound (B. Babaki, T. Guns, L. De Raedt)</p>	<p>A branch-and-price algorithm for parallel machine scheduling using ZDDs and generic branching (D. Kowalczyk, R. Leus)</p>	<p>Insights of Flexible Line Planning (E. Avila Ordóñez, P. Vansteenwegen, C.M.J. Tampère)</p>	

SCIENTIFIC SCHEDULE: PLENARY/PARALLEL SESSIONS

	PLENARY SESSION February 3rd – room 0105
14:45-16:30	<p>Branch-and-Price Prof. Marco Lübbecke (RWTH Aachen University)</p> <p>ORBEL Award ceremony (F. Spieksma) Sponsored by OM Partners</p> <p>Wolsey Award ceremony (S. Monthui) Sponsored by N-SIDE</p> <p>Closing (J. Beliën)</p>
chair: Dries Goossens	