Thursday (May 29)

7:45 - 8:30  
Registration

8:30 - 9:00  
Opening Session (Amphitheater)

9:00-10:00  
Plenary Session T1 (Amphitheater)  
Chairperson: Jadranka Skorin-Kapov

Assignment Problems: The first fifty years  
Silvano Martello

10:00 – 10:20  
Coffee Break

10:20 - 11:40

Session T1A: Scheduling (Amphitheater)  
Chairperson: Dominique de Werra

T1A.1  Car sequencing problem in the robotic assembly line  
Grzegorz Pawlak, Jacek Blazewicz, Slawomir Bak

T1A.2  Scheduling workflow applications on a grid  
Marek Mika, Grzegorz Waligóra, Jan Węglarz

T1A.3  Implicit Cooperation in Multi-Organization Clusters  
Daniel Cordeiro, Denis Trystram, Alfredo Goldman

T1A.4  Timetabling and discrete tomography  
Dominique de Werra

Session T1B: Networks (B4)  
Chairperson: Robert Manger

T1B.1  Some structural properties of a least central subtree of a tree  
Martti Hamina and Matti Peltola

T1B.2  Polyhedron of Human Trees  
Thanh Hai Nguyen, Jean - François Maurras, Viet Hung Nguyen

T1B.3  Coordinated supply chain scheduling  
Tadeusz Sawik

T1B.4  Design and Analysis of a Modified Work Function Algorithm  
Alfonzo Baumgartner, Tomislav Rudec, Robert Manger
Session T1C: Graphs  (B18)
Chairperson: Alain Hertz

T1C.1 New Bounds and Constraint Propagation Techniques for the Clique Partitioning Problem
Florian Jaehn, Erwin Pesch

T1C.2 On unicyclic graphs with a lower bounded girth
Walid Ben-Ameur, Makhlouf Hadji, Adam Ouorou

T1C.3 On cyclic properties of locally connected graphs with bounded vertex degree
Valery Gordon, Yury Orlovich, Chris Potts, Vitaly Strusevich

T1C.4 A surprising link between two invariants of graphs
Alain Hertz, Pierre Hansen, Rim Kilani, David Schindl, Odile Marcotte

11:40 – 12:00  Break

Session T2A: Linear and Integer Programming  (Amphitheater)
Chairperson: Bartosz Sawik

T2A.1 Semi-Lagrangian Relaxation applied to the Quadratic Assignment Problem
Cesar Beltran-Royo, Miguel Constantino, Huizhen Zhang

T2A.2 Comparison of some mathematical models for a Staff Rostering Problem
E. Naudin, P. Chan, M. Hiroux, T. Zemmouri, and G. Weil

T2A.3 Bi-Objective Integer Programming Approach to Optimal Assignment of Supporting Services in a Health-Care Institution
Bartosz Sawik

T2A.4 A Weighted-Sum Mixed Integer Program for Multi-Criteria Portfolio Optimization
Bartosz Sawik

Session T2B: Scheduling  (B4)
Chairperson: Nina Skorin-Kapov

T2B.1 On a class of Periodic Scheduling Problems
Michelon P., Quadri D., Negreiros Gomes M. J.

T2B.2 Scheduling of multiprocessor tasks on dedicated machines by hypergraph coloring
Krzysztof Giaro, Marek Kubale, Paweł Obszarski

T2B.3 Cutting planes for an industrial unrelated parallel machines problem with release dates and tails
Cédric Pessan, Meng Li, Emmanuel Néron

T2B.4 Scheduling, Routing and Assigning Wavelengths to Lightpaths in Optical Networks
Nina Skorin-Kapov, Pablo Pavón Mariño
Session T2C: Layout and Location  (B18)
Chairperson: Van-Dat Cung

T2C.1  Machine layout for closed-loop conveyors
Feristah Ozcelik, A. Attila Islier

T2C.2  On solving the multi-period location-assignment problem under uncertainty
Maria Albareda-Sambola, Antonio Alonso-Ayuso, F. Escudero, Elena Fernandez, Celeste Pizarro

T2C.3  An integer model for solving a modification of the extended rapid transit network design problem
L.F. Escudero, S. Muñoz

T2C.4  Optimizing Assembly U-line Balance: an Industrial Case Study
Laurent Chan, Felix T. Chan, Van-Dat Cung, Gerd Finke

13:20 – 15:00 Lunch break

15:00 – 16:00

Plenary Session T2  (Amphitheater)
Chairperson: Valter Boljunčić

A history tour on the exact solution of the Quadratic Assignment Problem
Catherine Roucairol

16:00 – 16:20 Coffee Break

16:20 – 17:40

Session T3A: Metaheuristics  (Amphitheater)
Chairperson: N. Mladenović

T3A.1  Bilevel programming model for creating new measure of monetary policy
Darko Pongrac, Kristina Šorić, Višnja Vojvodić Rosenzweig

T3A.2  A tabu search heuristic for ship routing and scheduling with flexible cargo sizes
Jarl Eirik Korsvik, Kjetil Fagerholt, Geir Brønmo

T3A.3  Iterated Local Search algorithm for the constrained two-dimensional non-guillotine cutting problem
Selma Khebbache, Christian Prins, Alice Yalaoui

T3A.4  Heuristic for matrix bandwidth minimization
N. Mladenović, D. Urošević, D. Perez-Brito, C. Garcia-Gonzalez

Session T3B: Routing  (B4)
Chairperson: Thierry Mautor

T3B.1  Solving rich VRPs by column generation
Johan Oppen, Arne Løkketangen, Jacques Desroijers

T3B.2  Integer programming formulations for vehicle routing problem with backhauls
Barış Keçeci, İmdat Kara
Solving a family of pickup and delivery vehicle routing problems arising in reverse logistics and the supply of oil and gas platforms  
Irina Gribkovskaya, Gilbert Laporte

Vehicle Routing for a Reverse Logistics Problem  
Thierry Mautor and Catherine Roucairol

Session T3C: Scheduling (B18)  
Chairperson: Vitaly A. Strusevich

Efficient Method for Periodic Task Scheduling with Storage Requirement Minimisation  
Karine Deschinkel, Sid-Ahmed-Ali Touati

An Arc Generation Approach for Vehicle Scheduling Problem  
Stefan Bunte, Natalia Kliewer

Assigning Advertised Completion Times for Jobs with Uncertain Arrival Times  
Singh G, Ernst A, and Robinson G

Single Machine Scheduling and Due Date Assignment under Positional Deterioration  
Valery S. Gordon, Vitaly A. Strusevich

18:30 – 20:00  Welcome Reception

Friday (May 30)

8:00 – 9:00  
Plenary Session F1 (Amphitheater)  
Chairperson: Kristina Ńorić

Developing and Testing General-purpose Combinatorial Optimization Platforms Based on Metaheuristic Methodology  
Manuel Laguna

9:00 – 9:20  Coffee Break

9:20 – 10:40  
Session F1A: Nonlinear Integer Programming (Amphitheater)  
Chairperson: Monique Guignard

A parallel implementation of the Quadratic Three-Dimensional Assignment Problem using the Bob++ Framework.  
François Galea, Peter Hahn, Bertand Le Cun

Reformulation of the Bilevel Knapsack Problem  
Raïd Mansi, Luce Brotcorne and Saïd Hanafi

Mean and variance constraints, valid inequalities and Lagrangian relaxation for stochastic network design problems  
Pablo A. Miranda
**F1A.4** Primal and convex hull relaxations for nonlinear integer programming problems  
*Monique Guignard and Aykut Ahlatcioglu*

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**Session F1B: Game theory, Fairness (B4)**
Chairperson: *Milan Vlach*

**F1B.1** A Mathematical Solution to the Cournot Model of Duopoly  
*Mehmet Can*

**F1B.2** An integration of game theory into the operations research  
*Hüseyin Hayri Nuroglu and Elif Nuroglu*

**F1B.3** On Fairness in Fair Queuing  
*Wieslaw Kubiak*

**F1B.4** Gap Minimization in Competitive Fair Division  
*Shao-Chin Sung, Milan Vlach*

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**Session F1C: Scheduling (B18)**
Chairperson: *Gerd Finke*

**F1C.1** Inverse Model of the Flow Shop Scheduling Problem  
*Peter Brucker, Natalia V. Shakhlevich*

**F1C.2** Two-machine flowshop scheduling problem with penalization of overlapping  
*Ameur Soukhal and Christophe Lente*

**F1C.3** Scheduling a Maintenance Activity on a Two-Machine Flowshop  
*Gur Mosheiov and Assaf Sarig*

**F1C.4** On cyclic identical coupled-task problems  
*Vassilissa Lehoux-Lebacque, Nadia Brauner and Gerd Finke*

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**10:40 – 11:00 Break**

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**Session F2A: Integer Programming (Amphitheater)**
Chairperson: *Paolo Toth*

**F2A.1** Estimating the Cost of Deploying Teams to Sites in a Reconfiguration Process  
*Belén Melián, Manuel Laguna, Thomas Vossen*

**F2A.2** Stowage planning in maritime bulk shipping  
*Lars Magnus Hvattum, Kjetil Fagerholt, Vinicius Armentano*

**F2A.3** On a dual network exterior point simplex algorithm for the minimum cost network flow problem and its empirical behavior  
*Geranis Georgios, Paparrizos Konstantinos and Sifaleras Angelo*

**F2A.4** Bounds and algorithms for the Bin Packing Problem with Conflicts  
*Albert E. Fernandes Muritiba, Manuel Iori, Enrico Malaguti, Paolo Toth*
Session F2B: Metaheuristics: Tabu Search  
Chairperson: John M. Wilson

F2B.1  A New Neighborhood and Tabu Search for Job Shop Scheduling with Blocking Constraints  
Andreas Klinkert and Heinz Groeflin

F2B.2  A Tabu Search Approach to an Urban Transport Problem in Northern Spain  
Joaquín Pacheco, Silvia Casado, Ada Alvarez, José Luis González-Velasco

F2B.3  A tabu search algorithm for the heterogeneous fixed fleet vehicle routing problem  
José Brandão

F2B.4  A hybrid Tabu Search / Branch & Bound approach to solving the Generalized Assignment Problem  
Andrew J. Woodcock, John M. Wilson

Session F2C: Classification and Pattern Recognition  
Chairperson: Jacek Błażewicz

F2C.1  Optimization Methods for Spam Filtering  
Didier Colin, Catherine Roucairol, Ider Tseveendorj

F2C.2  Fuzzy C-means model and algorithm for data clustering  
Sadina Gagula-Palalic, Mehmet Can

F2C.3  Heuristics for the design of maximum hydropathic complementarity molecules  
Alberto Ceselli, Sandro Fornili, Giovanni Righini

F2C.4  OR approaches for domain prediction in proteins: methods, assessment  
Piotr Łukasiak, Jacek Błażewicz, Maciej Antczak, Grzegorz Palik, Maciej Milostan

12:20 – 12:40  Break

12:40 – 13:40

Plenary session F2  (Amphitheater)  
Chairperson: Paolo Toth

On Cost Allocation Schemes in Networks: Game Theory and Combinatorial Models  
Darko Skorin-Kapov

13:40 -  Conference tour and dinner

Saturday (May 31)

8:00 – 9:00
Plenary Session S1  (Amphitheater)  
Chairperson: Luka Neralić

Polynomial Time Approximation Schemes for Bicriteria Optimization Problems: A New Direction for Integer Programming  
Asaf Levin
9:00 – 9:20 Coffee Break

9:20 – 10:40

**Session S1A: Routing**  *(Amphitheater)*
Chairperson: **Pablo A. Miranda**

**S1A.1** Intermediate non-feasible solutions with extra capacity to solve the Double TSP with Multiple Stacks  
*A.Felipe, M.T. Ortuño and G. Tirado*

**S1A.2** Efficiently solving school bus routing problems by integrating metaheuristics and exact methods  
*Kenneth Sörensen, Patrick Schittekat, Marc Sevaux, Johan Springael*

**S1A.3** Formulations for school bus routing problems  
*Emrah Demir, İmdat Kara*

**S1A.4** A 1-shift local search heuristic with low complexity for probabilistic traveling salesman problem  
*Alejandro Lamas, Pablo A. Miranda*

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**Session S1B: Metaheuristics**  *(B4)*
Chairperson: **Malgorzata Sterna**

**S1B.1** A modelling of animal selection scheme optimized by the genetic algorithm  
*A.D. Costard, Z.G. Vitezica, C. R. Moreno, J.-M. Elsen*

**S1B.2** Genetic algorithms with local search for the unrelated parallel machine scheduling problem with setup times  
*Eva Vallada, Rubén Ruiz, Dario Diotallevi*

**S1B.3** Maximizing Revenue on Parallel Machines by Simulated Annealing Method  
*Malgorzata Sterna, Jacek Juraszek, Erwin Pesch*

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**Session S1C: Location**  *(B18)*
Chairperson: **V. Beresnev**

**S1C.1** The inverse Fermat-Weber problem  
*Mohammadreza Galavii, Rainer E. Burkard, Elisabeth Gassner*

**S1C.2** Inverse Network Center Location Problems with Edge Length Modifications  
*Behrooz Alizadeh, Rainer E. Burkard*

**S1C.3** Inverse Median Location Problems with Point Coordinates Modification on a d-Dimensional Real Space  
*Fahimeh Baroughi, Rainer E. Burkard, Behrooz Alizadeh*

**S1C.4** Upper Bounds for Discrete Competitive Facility Location Problems  
*V. Beresnev*

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10:40 – 11:00 Break
11:00 – 12:20

**Session S2A: Scheduling**  *(Amphitheater)*
Chairperson: Rafał Różycki

**S2A.1**  Scheduling reentrant jobs on parallel machines with a remote server  
*K. Chakhlevitch and C.A. Glass*

**S2A.2**  Iterated Greedy Algorithms for the Unrelated Parallel Machine Problem  
*Luis Fanjul, Rubén Ruiz, Michele Ciavotta*

**S2A.3**  Due date assignment and just-in-time scheduling on uniform parallel machines  
*Nguyen Huynh Tuong and Ameur Soukhal*

**S2A.4**  Solving a special case of the discrete-continuous scheduling problem by metaheuristics and linear programming approach  
*Rafał Różycki*

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**Session S2B: Mathematical Programming**  *(B4)*
Chairperson: Eduardo Piza

**S2B.1**  Taming Wind Energy with Battery Storage  
*Andreas Ernst and Gaurav Singh*

**S2B.2**  Reoptimization techniques in a column generation scheme  
*Nora Touati, Lucas Létocart, Anass Nagih*

**S2B.3**  Using “hyper-tubes” for maintaining diversity in Multi-Objective Particle Swarm Optimizer  
*Mario Alberto Villalobos-Arias*

**S2B.4**  Circular chains of Chinese dice  
*Eduardo Piza, Leo Schubert*

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**Session S2C: Planning and Scheduling**  *(B18)*
Chairperson: Claas Hemig

**S2C.1**  Lower bounds and flat graphs of precedence relations for the resource-constrained project scheduling problem  
*Evgeny R. Gafarov, Alexander A. Lazarev*

**S2C.2**  Algorithms for the special case of the total tardiness problem on a single machine  
*Alexander A. Lazarev*

**S2C.3**  Some graph issues for a sequenced air traffic flow  
*D. Prot, C. Rapine, S. Constans, R. Fondacci*

**S2C.4**  Production Planning in the Interior of the Automotive Industry’s Production Chain  
*Claas Hemig*

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12:20 – 12:30  Break

12:30 – 13:30  **Plenary Session S2**  *(Amphitheater)*
Chairperson: Silvano Martello

Submodular Functions, Matroids, and Certain Polyhedra  
*Jack Edmonds*

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13:30 – 13:45  **Closing Session**  *(Amphitheater)*