

ISCO 2012 Program

Wednesday, April 18

19:00 Welcome Reception - Registration
Antoniadi Wing, 1st floor

Rooms

Derigny Amphitheater (plenary sessions)

Room $\Delta 11$

Derigny Amphitheater

Thursday, April 19

8:15 Registration

8:45 Welcome

9:00 **Hyperpaths in Directed Hypergraphs: Properties and Algorithms**
Giorgio Ausiello

10:00 Break

GRAPH COLORING AND ORIENTATION (REGULAR)	INTEGER PROGRAMMING (REGULAR)
10:15 The Packing Coloring Problem for $(q, q - 4)$ Graphs <i>G. Argiroffo, G. Nasini, P. Torres</i>	The Minimum Stabbing Triangulation Problem: IP Models and Computational Evaluation <i>B. Piva, C. C. De Souza</i>
10:40 Selective Graph Coloring in Some Special Classes of Graphs <i>M. Demange, J. Monnot, P. Pop, B. Ries</i>	Orbital Shrinking <i>M. Fischetti, L. Liberti</i>
11:05 Graph Orientations Optimizing the Number of Light or Heavy Vertices <i>Y. Asahiro, J. Jansson, E. Miyano, H. Ono</i>	Using Symmetry to Optimize Over the Sherali-Adams Relaxation <i>J. Ostrowski</i>

11:30 Break

GRAPH PARTITIONING (REGULAR)	NON-LINEAR INTEGER PROGRAMMING (REGULAR)
11:45 On the Solution of a Graph Partitioning Problem Under Capacity Constraints <i>P. Bonami, V. H. Nguyen, M. Klein, M. Minoux</i>	A Second-Order Cone Programming Approximation to Joint Chance-Constrained Linear Programs <i>J. Cheng, C. Gicquel, A. Lisser</i>
12:10 Sum-Max Graph Partitioning Problem <i>R. Watrigant, M. Bougeret, R. Giroudeau, J-C. König</i>	Semidefinite Relaxations for Mixed 0-1 Second-Order Cone Program <i>A. Gorge, A. Lisser, R. Zorghi</i>

12:35 Lunch

ROUTING PROBLEMS (REGULAR)	GRAPHS AND POLYHEDRA (SHORT)
14:00 Layered Formulation for the Robust Vehicle Routing Problem with Time Windows <i>A. Agra, M. Christiansen, R. Figueiredo, L. M. Hvattum, M. Poss, C. Requejo</i>	Polynomial cases of Hypergraph Local Edge-Connectivity Augmentation <i>R. Grappe</i>
14:25 Models and Algorithms for Robust Network Design with Several Traffic Scenarios <i>E. Á-Miranda, V. Cacchiani, T. Dorneth, M. Jünger, F. Liers, A. Lodi, T. Parriani, D. R. Schmidt</i>	A Combinatorial Linearization of the Quadratic Acyclic Vertex-Induced Subgraph Problem <i>D. Cornaz, H. Kerivin, A. R. Mahjoub</i>
14:50 Aircraft Sequencing Problems via a Rolling Horizon Algorithm <i>F. Furini, C. A. Persiani, P. Toth</i>	The Classical Facility Location Polytope for Graphs with no g-odd Y-cycle <i>M. Baiou, F. Barahona</i>

15:15 Break

COLUMN GENERATION AND BRANCH-AND-PRICE (SHORT)	HEURISTICS AND METAHEURISTICS (SHORT)
15:30 An Exact Column-Generation Approach for the Lot-Type Design Problem <i>M. Kießling, S. Kurz, J. Rambau</i>	The Eternity II Puzzle: a Mathheuristic Approach <i>F. Salassa, T. Wauters, W. Vancroonenburg</i>
15:55 Generalizations of Dobson Approximation Algorithm and Cooperation with Column Generation for Large-Size Covering Integer Programs <i>L. Alfandari, A. Nagih, A. Plateau, J. Sadki</i>	Planning for Evacuation <i>H. Alaeddine, E. Neron, K. Serrhini, M. Maizia</i>
16:20 A Branch-and-Price Algorithm for the Optical Multi-Band Network Design Problem <i>A. Benhamiche, A. R. Mahjoub, N. Perrot, E. Uchoa</i>	Combining Simulated Annealing and Linear Programming Approaches for Reconstructing hv-Convex Colored Images <i>A. Billionnet, F. Jarray, G. Tlig, E. Zagrouba</i>

16:45 Break

NONLINEAR AND ROBUST OPTIMIZATION (SHORT)	POLYHEDRA AND BRANCH-AND-CUT (SHORT)
17:00 Semidefinite Relaxation for a Lot-Sizing Problem with Sequence-Dependent Changeover Costs <i>C. Gicquel, A. Lisser, M. Minoux</i>	Solving the Multi-Commodity Many-to-Many Pickup-and-Delivery Traveling Salesman Problem <i>H. H. Perez, J. J. Salazar</i>
17:25 A 2-stage Robust Optimization Model for Planning Nuclear Maintenances with Uncertainty on their Durations <i>N. Dupin</i>	Polynomial Separation of the Enhanced Reverse Multistar Inequalities <i>L. Gouveia, J. J. Salazar</i>
17:50 The Recoverable Robust Two-Level Network Design Problem <i>E. Álvarez-Miranda, I. Ljubic, S. Raghavan, P. Toth</i>	A polyhedral Approach for Generalizing the Miller-Tucker-Zemlin Subtour Elimination Constraints for Routing Problems <i>T. Bektas, L. Gouveia</i>

Friday, April 20

9:00	Models and Algorithms for the Train Unit Assignment Problem <i>Paolo Toth</i>	
10:00	Break	
	<small>SCHEDULING AND AUCTIONS (REGULAR)</small>	<small>POLYHEDRA AND BRANCH-AND-CUT (REGULAR)</small>
10:15	Completion Time Scheduling and the WSRPT Algorithm <i>B. Xiong, C. Chung</i>	The Non-Disjoint m-Ring-Star Problem: Polyhedral Results and SDH/SONET Network Design <i>P. Fouilhoux, A. Questel</i>
10:40	Two Agent Scheduling on a Serial Batching Machine <i>M. Kovalyov, A. Oulamara, A. Soukhal</i>	The Uncapacitated Asymmetric Traveling Salesman Problem with Multiple Stacks <i>S. Borne, R. Grappe, M. Lacroix</i>
11:05	Second-Price Ad Auctions with Binary Bids and Markets with Good Competition <i>R. Schouery, C. Fernandes</i>	Polyhedral Analysis and Branch-and-Cut for the Structural Analysis Problem <i>M. Lacroix, A. R. Mahjoub, S. Martin</i>
11:30	Break	
	<small>SCEDULING AND FAIR DIVISION (SHORT)</small>	<small>NETWORK DESIGN (SHORT)</small>
11:45	Identical Coupled Task Scheduling Problem: the Finite Case <i>M. Gabay, G. Finke, N. Brauner</i>	A Route-Based Decomposition for the Multi-Commodity k-splittable Maximum Flow Problem <i>M. Gamst</i>
12:10	Restricted Max-Min Fair Allocation with Inclusion-Free Intervals <i>M. Mastrolilli, G. Stamoulis</i>	Capacitated Network Design with Facility Location <i>S. Gollowitzter, B. Gendron, I. Ljubic</i>
12:35	Lunch	
	<small>GRAPH AND SAT PROBLEMS (SHORT)</small>	<small>NETWORK DESIGN (REGULAR)</small>
14:00	Generalized Limited Packings of P4-Tidy Graphs <i>M. P. Dobson, E. Hinrichsen, V. Leoni</i>	On the Hop Constrained Steiner Tree Problem with Multiple Root Nodes <i>L. Gouveia, M. Leitner, I. Ljubic</i>
14:25	On the Complexity of Constructing Minimum Reload Cost Path-Trees <i>D. Gözüpek, M. Shalom, A. Voloshin, S. Zaks</i>	Theoretical Investigation of Aggregation in Pseudo-Polynomial Network-Flow Models <i>M-E. Voqe, F. Clautiaux</i>
14:50	On the Complexity of Partial Colored Multiterminal Cut Problems <i>C. Bentz, P. Le Bodic</i>	On Solving the Rooted Delay- and Delay-Variation-Constrained Steiner Tree Problem <i>M. Ruthmair, G. Raidl</i>
15:15	Differential Approximation of SNP Optimization Problems <i>J-F. Culus, S. Toulouse, F. Roupin</i>	A Parallel Lagrangian Relaxation Algorithm for the Min-Degree Constrained Minimum Spanning Tree Problem <i>L. Martinez, A. Cunha</i>
Visit to the Acropolis Museum Trolley No 5: From stop OTE (Patisision 81) to stop MAKRYIANNI Guided visit in three groups		
18:30	Group 1	
18:40	Group 2	
18:50	Group 3	
20:00	Conference Dinner Restaurant of the Acropolis Museum	

Saturday, April 21

9:00	Branch-and-Price Guided Search <i>George L. Nemhauser</i>	
10:00	Break	
	GRAPH MINORS AND HYPERGRAPHS (REGULAR)	EXTENDED FORMULATIONS AND POLYHEDRA (REGULAR)
10:15	The Gram Dimension of a Graph <i>M. Laurent, A. Varvitsiotis</i>	Extended Formulations, Non-Negative Factorizations, and Randomized Communication Protocols <i>Y. Faenza, S. Fiorini, R. Grappe, H. R. Tiwary</i>
10:40	Exploiting a Hypergraph Model for Finding Golomb Rulers <i>M. Sorge, H. Moser, R. Niedermeier, M. Weller</i>	An Algebraic Approach to Symmetric Extended Formulations <i>G. Braun, S. Pokutta</i>
11:05	Counting Homomorphisms via Hypergraph-Based Structural Restrictions <i>T. Färnqvist</i>	Dual Consistent Systems of Linear Inequalities and Cardinality Constrained Polytopes <i>S. Fujishige, J. Massberg</i>
11:30	Break	
	SUBMODULAR FUNCTIONS AND MATROIDS (REGULAR)	NETWORK DESIGN (SHORT)
11:45	Towards Minimizing k-Submodular Functions <i>A. Huber, V. Kolmogorov</i>	An Efficient Tree-Based Model for Multicommodity Flow Problems <i>W. Ben-Ameur, P-O. Bauguion, E. Gourdin</i>
12:10	Recognition Algorithms for Binary Signed-Graphic Matroids <i>K. Papalamprou, L. Pitsoulis</i>	A Distributed Transportation Simplex Applied to a Content Distribution Network Problem <i>R. Coutinho, L. Drummond, Y. Frota, L. Simonetti, E. Uchoa</i>
12:35	Lunch	
	TSP AND MATCHINGS (REGULAR)	CUTTING PLANES (REGULAR)
14:00	Hardness Results for the Probabilistic Traveling Salesman Problem with Deadlines <i>D. Weyland, R. Montemanni, L. M. Gambardella</i>	Minimum Ratio Cover of Matrix Columns by Extreme Rays of its Induced Cone <i>A. Freire, V. Acuna, P. Crescenzi, C. Ferreira, V. Lacroix, P. V. Milreu, E. Moreno, M-F. Sagot</i>
14:25	Differential Approximation of the Multiple Stacks TSP <i>S. Toulouse</i>	Gap Inequalities for the Max-Cut Problem: a Cutting-Plane Algorithm <i>L. Galli, K. Kaparis, A. Letchford</i>
14:50	Constrained Matching Problems in Bipartite Graphs <i>M. Mastrolilli, G. Stamoulis</i>	Fast Separation Algorithms for Three-Index Assignment problems <i>T. Dokka, I. Mourtos, F. Spiessma</i>
15:15	Break	
	LAGRANGEAN RELAXATION AND BRANCH-AND-BOUND (SHORT)	POLYHEDRA AND BRANCH-AND-CUT (SHORT)
15:30	A Branch and Bound Method for the Aggregation of Symmetric Relations <i>I. Charon, O. Hudry</i>	Permutation Problem Using a Unit-Capacity Robot: Feasibility Recovery and Cutting-plane Based Formulation with MTZ Strengthening <i>P. Bendotti, P. Fouilhoux, K. Podkanski</i>
15:55	Algorithms for the Multi-Period Degree Constrained Minimum Spanning Tree Problem <i>A. Cunha</i>	Clique-Branching Formulation for the Vertex Coloring Problem <i>P. Fouilhoux</i>
16:20	Bottleneck and Maxmin Transportation Problems with Degree Constraints <i>E. Gourdin, Y. Wang</i>	On the Constrained Minimum s - t Cut Problem <i>H. Aissi, A. R. Mahjoub</i>
16:45	Break	
17:00	Computational Insights and the Theory of Evolution <i>Christos H. Papadimitriou</i>	
18:00	End of ISCO 2012	