

# CTW 2018 (CNAM, Paris, France, 18-20 June)

This conference is supported by a hell of an organizing committee. Special thanks go to Amélie Lambert (local arrangements), Lucas Létocart (website), Fabio Furini (email), Emiliano Traversi (proceedings). All complaints should go to Leo Liberti (sigh).

## Schedule

	Mon 18 June			Tue 19 June			Wed 20 June		
	Room PP	Room Z	Room Y	Room PP	Room Z	Room Y	Room PP	Room Z	Room Y
09:00-09:30	Registration (hall) and opening (PP)								
09:30-10:00	Complexity Anapolska	Math. Progr. I Iommazzo	Networks I Oustry	Games II Yang	Transportation I Bauguion	Energy I Schwenk	Graphs IV (Cordone) Kumbar-goudra	Math. Progr. III Aoudia	Energy II Vanier
10:00-10:30	Pradhan	Lee	Gunnec	Furini	Righini	Thomopoulos	Tian	Traversi	Menca-relli
10:30-11:00	coffee (hall)			coffee (hall)			coffee (hall)		
11:00-11:30	Seiller (plenary, PP)			Wiegele (plenary, PP)			Graphs V Zheng	Transportation II Pisacane	Games Boehn-lein
11:30-12:00							Behm-aram	Bruglieri	III Pacifici
12:00-14:00	lunch (on your own)			lunch (on your own)			Closing (PP)		
14:00-14:30	Graphs I Nguyen	Algorithms I Hommels-heim	Graph Embed-dings Silva	Clustering Edel-mann	Math. Progr. II Francois	Schedu-ling Pan	<i>Did you know that CNAM hosts a Sciences Museum? This is one of the most crucial places in the novel "Foucault's Pendulum" by Umberto Eco (possibly my favorite writer). Many years ago I had applied to an assistant professorship at CNAM. I did not get the position, but during the interview I could not refrain from declaring that one of my strong motivations to apply was working in a place celebrated in a novel I loved. The hiring committee burst out laughing, and maybe that's why I wasn't offered the position. In any case you should go and visit the museum (same building, different entrance). Do not miss the part of the museum which hosts Foucault's pendulum, which hangs from the dome of the church of St. Martin-des-Champs (literally: St. Martin-in-the-Fields, which describes a sister church in London, equally central, but of a different confession I think).</i>		
14:30-15:00	Gomes da Silva	Vernet	Serocold	Gentile	Casazza	Schaudt			
15:00-15:30	Hossain	Vandomme	Lavor	Cordone	Marinelli	Nicosia			
15:30-16:00	coffee (hall)			coffee (hall)					
16:00-16:30	Graphs II Obreja	Comb. Opt. (Schrader) Vretta	Games I Lozovanu	Graphs III Gishbo-liner	Algorithms Klootwijk	Networks Ghanem			
16:30-17:00	Wolfier	Apke	Kern	Hu	Verma	Baste			
17:00-17:30				Del-Vecchio	Weller	Danisch			
19:00-21:00	Cocktail (salle des textiles)								

The seminar rooms are the *Paul Painlevé* (PP), the *Robert Faure* (Z) and the *Jean-Baptiste Say* (Y) amphitheatres, located in Access 1, lower ground floor. Opening, plenary and closing sessions will take place in the PP amphitheatre. The cocktail event on Tuesday evening will take place in the *salle des textiles* room, located in Access 3, 1st floor. Coffee pauses will take place in the hall before the three amphitheatres. [http://cedric.cnam.fr/~courtiep/planCnam/plan\\_Cnam\\_3e\\_arrondissement.html](http://cedric.cnam.fr/~courtiep/planCnam/plan_Cnam_3e_arrondissement.html)

**Session chairs.** The last speaker of the session will chair the session, with two exceptions for PhD-only sessions: *Combinatorial Optimization* (Mon 18, Room PP, 16-17) chaired by R. Schrader, and *Graphs III* (Wed 20, Room PP, 9:30-10:30) chaired by R. Cordone. Session chairs must remind speakers to load up slides on laptops, and keep the sessions on time. Session chairs are encouraged to be cruel and despotic as regards times allotted, since there are parallel sessions. If a speaker will not get your hints, standing is often not enough: just cut him/her short and invite the next speaker (as the last speaker in the session, you have every incentive to do so, but please don't be the chair who overruns his own time slot). Conversely, if a speaker ends before the time is up, you should encourage some questions/discussion/debate: e.g. invite questions from the audience and leave a pause long enough to be slightly awkward, then possibly someone will ask a question just to fill in the horrible silence, and then other questions may follow. If no-one asks, you can start off the debate by asking a session yourself. In any case, keep all slots to exactly 30 minutes (parallel sessions regime).

## CTW 2018 (CNAM, Paris, France, 18-20 June)

### Invited speakers

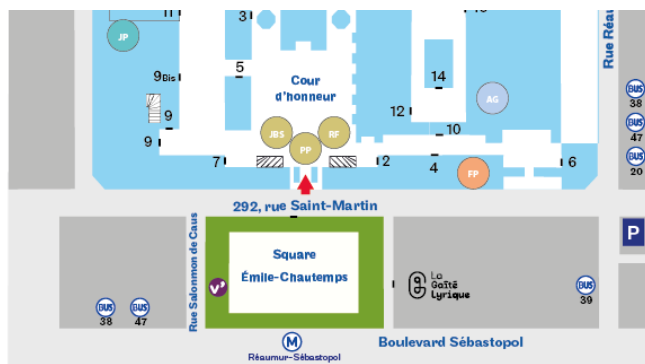
Thomas Seiller, Univ. Paris-Nord, Mon 18, PP, 11-12  
From Proofs to Programs, Graphs and Dynamics. Geometric perspectives on computational complexity.

Angelika Wiegele, Alpen-Adria Univ. Klagenfurt, Tue 19, PP, 11-12  
Modeling and Solving Combinatorial Optimization Problems using Semidefinite Programming



*Enter CNAM by the entrance labelled "1". The amphitheatres are underground, underneath the entrance court (see picture below). The "Salle des textiles" (where the cocktail event takes place) is labeled by "3", on the first floor.*

Jean Fourastlé (T)	JF
Jean Prouvé (V)	JP
Robert Faure (Z)	RF
Jean Baptiste Say (Y)	JBS
Paul Painlevé (PP)	PP
Fabry Perot (A)	FP
Abbé Grégoire (C)	AG



Speaker	Title	Session
Anapolska	Minimum Color-Degree Perfect b-Matchings	Complexity
Aoudia	Star forest polytope on complete graph	Math. Progr. III
Apke	A Characterization of Interval Orders with Semiorder Dimension Two	Comb. Opt.
Baste	Temporal matching in link stream: kernel and approximation	Networks II
Bauguion	Multimodal transportation plan adjustment with passengers behaviour constraints	Transportation I
Behmaram	On matching and distance property of m-barrel Fullerene	Graphs V
Boehnlein	Make or Buy: Revenue Maximization in Stackelberg Scheduling	Games III
Bruglieri	The Electric Vehicle Relocation Problem in Carsharing Systems with Collaborative Operators	Transportation II
Casazza	Dual bounds for a Maximum Lifespan Tree Problem	Math. Progr. II
Cordone	Some polynomial special cases for the Minimum Gap Graph Partitioning Problem	Clustering
Danisch	A Modular Overlapping Community Detection Algorithm: Investigating the "From Local to Global" Approach	Networks II
Del-Vecchio	A new centrality measure: spectral closeness.	Graphs III
Edelmann	Graph partitioning using matrix differential equations	Clustering
François Furini	Mixed Integer Linear Programming Approach for a Distance-Constrained Elementary Path Problem	Math. Progr. II
Gentile	Attacking the Clique Number of a Graph	Games II
Ghanem	An algorithm for computing lower bounds for the Microaggregation problem	Clustering
Gishboliner	How to exploit structural properties of dynamic networks to detect nodes with high temporal closeness	Networks II
Gomes Da Silva	A Generalized Turan Problem and its Applications	Graphs III
Gunnec	Equitable total chromatic number of two classes of complete r-partite p-balanced graphs	Graphs I
Hommelshheim	Influence Maximization in Social Networks under Deterministic Linear Threshold Model	Networks I
Hossain	Robust Matching Augmentation	Algorithms I
Hu	Multicoloring of Pattern Graphs for Sparse Matrix Determination	Graphs I
Iommazzo	On the spectra of general random mixed graphs	Graphs III
Kern	A methodology for addressing the Algorithm Configuration problem on mathematical programming solvers	Math. Progr. I
Klootwijk	The asymptotic price of anarchy for k-uniform congestion games	Games I
Kumbargoudra	Probabilistic Analysis of Optimization Problems on Generalized Random Shortest Path Metrics	Algorithms II
Lavor	Total k-rainbow Domatic Number	Graphs IV
Lee	New advances on the branch-and-prune algorithm for the discretizable molecular distance geometry problem	Graph Embeddings
Lozovanu	Gomory by column generation	Math. Progr. I
Marinelli	Nash Equilibria in Mixed Stationary Strategies for m-Player Cyclic Games on Networks	Games I
Mencarelli	A star-based reformulation for the maximum quasi-clique problem	Math. Progr. II
Nguyen	A Multiplicative Weights Update Algorithm for a Class of Pooling Problems	Energy II
Nicosia	On some tractable constraints on paths in graphs and in proofs	Graphs I
Obreja	Single machine scheduling with bounded job rearrangements	Scheduling
Oustry	Extremal Graphs with respect to the Modified First Zagreb Connection Index	Graphs II
Pacifici	Optimal Deployment of Wireless Networks	Networks I
Pan	Two Stackelberg Knapsack games	Games IV
Pisacane	A hybrid heuristic for multi-activity tour scheduling	Scheduling
Pradhan	Solving the Green Vehicle Routing Problem with Capacitated Alternative Fuel Stations	Transportation II
Righini	Algorithmic aspects of neighborhood total domination in graphs	Complexity
S. Schaudt	Dynamic programming for the Electric Vehicle Orienteering problem with multiple technologies	Transportation I
Schwenk	Parallel machine scheduling with unit time distinct due windows	Scheduling
Serocold	Parallel machine scheduling with unit time distinct due windows	Scheduling
Silva	A Green Energy Grid Coupling Problem (GEGCP)	Energy I
Tian	Rigidity of 1-coordinated frameworks in 2 dimensions	Graph Embeddings
Thomopolos	Graphs with at most one crossing	Graph Embeddings
Traversi	Sufficient degree conditions for traceability of claw-free graphs	Graphs IV
Vandomme	A Constrained Shortest Path formulation for the Two-Reservoir Hydro Unit Commitment Problem	Energy I
Verma	Decomposition Methods for Quadratic Programming	Math. Progr. III
Vemet	Fully leafed induced subtrees (extended abstract)	Algorithms I
Vretta	Column Generation for the Energy-Efficient in Multi-Hop Wireless Networks Problem	Energy II
Weller	Edge Domination in subclasses of bipartite graphs	Algorithms II
Wolfler	Successive Shortest Path Algorithm for Flows in Dynamic Graphs	Algorithms I
Yang	A characterization for binary signed-graphic matroids	Comb. Opt.
Zheng	Listing Conflicting Triples in Optimal Time	Algorithms II
	A branch-and-price framework for decomposing graphs into relaxed cliques	Graphs II
	On the One-Cop-Moves Game on Graphs	Games II
	Implicit heavy subgraph conditions for hamiltonicity of almost distance-hereditary graphs	Graphs V

The proceedings of this workshop are distributed in a PDF file which is available for download at [www.lix.polytechnique.fr/~liberti/ctw18-proceedings.pdf](http://www.lix.polytechnique.fr/~liberti/ctw18-proceedings.pdf).

A special issue of Discrete Applied Mathematics will be dedicated to the topics of CTW18. Watch out for calls for papers to this issue during summer/autumn/winter 2018.

