Stamford, CT, USA
September 30 - October 4 2019

Conference Program

Conference Information

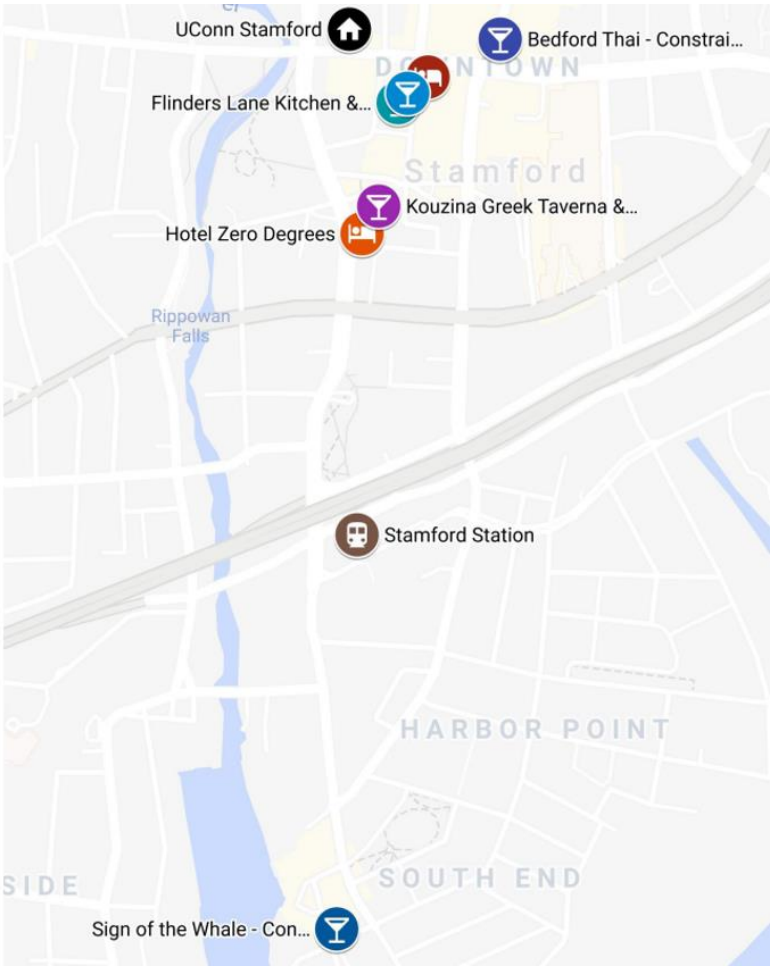
WiFi is available for free on the UConn campus through the network UCONN-GUEST. You can also connect to the Internet through eduroam.

Here is a map of the main sites associated with the conference, which can also be accessed here, https://tinyurl.com/y38be7ag.

CP 2019 Map

Important Locations

- UConn Stamford
- Courtyard by Marriott Stamford Downtown
- Hotel Zero Degrees
- Stamford Station
- Flinders Lane Kitchen & Bar - ACP Dinner
- Bartaco - Doctoral Program Dinner
- Sign of the Whale - Conference Dinner
- Bedford Thai - Constraints Editorial Board Lunch
- Kouzina Greek Taverna & Bar - SPC Dinner



Conference Schedule

From	To	Monday 9 / 30				Tuesday 10 / 1			Wednesday 10 / 2			Thursday 10 / 3			Friday 10 / 4	
		Gen Re Auditorium Room 109	Multi-Purpose Room (MPR) Room 108	Morning: Room 132 Afternoon: Room 259	Morning: Room 134 Afternoon: Room 218	Off Campus	Gen Re Auditorium Room 109	Multi-Purpose Room (MPR) Room 108	Off Campus	Gen Re Auditorium Room 109	Multi-Purpose Room (MPR) Room 108	Room 106	Off Campus	Gen Re Auditorium Room 109	Multi-Purpose Room (MPR) Room 108
8:00	8:15	Registration														
8:15	8:30															
8:30	8:45															
8:45	9:00															
9:00	9:15															
9:15	9:30															
9:30	9:45	Special Purpose Hardware	Holy Grail	ModRef	Doctoral Program		Invited Talk Phoebe Vayanos	Welcome		Invited Talk Ian Davidson	Break					
9:45	10:00															
10:00	10:15							Paper Presentations			Abstract Session	Paper Presentations				
10:15	10:30															
10:30	10:45					Coffee Break	Coffee Break - Posters			Coffee Break				Invited Talk Bistra Dilkina	Break	
10:45	11:00															
11:00	11:15															
11:15	11:30	Special Purpose Hardware	Holy Grail	ModRef	Doctoral Program			Paper Presentations			Paper Presentations					
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14:00	14:15	Special Purpose Hardware	Holy Grail	ModRef	Doctoral Program			Paper Presentations			Paper Presentations					
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14:45	15:00															
15:00	15:15							Break			Break					
15:15	15:30															
15:30	15:45					Coffee Break	Coffee Break - Posters			Coffee Break						
15:45	16:00															
16:00	16:15							Tutorial Tomas Werner			Paper Presentations	Paper Presentations				
16:15	16:30															
16:30	16:45	Special Purpose Hardware	Holy Grail	ModRef	Doctoral Program			Tutorial Neng-Fa Zhou			Paper Presentations	Paper Presentations				
16:45	17:00						ACP Awards			Best Papers						
17:00	17:15															
17:15	17:30							Competition Results			25th Anniversary Panel			ACP General Assembly - CP Publication Discussion	Abstract Session	
17:30	17:45															
17:45	18:00				DP Dinner		Welcome Reception and Posters									
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Monday, September 30, 2019 | Special Purpose Hardware Gen Re Auditorium Room 109	
8:00 - 17:00	Registration
8:50 - 10:30	**Constraint Solving and Special Purpose Hardware Architectures** ▪ Christopher Beck. Welcome ▪ Carleton Coffrin. Novel Computing Platforms: Potential and Challenges for Discrete Optimization ▪ Aidan Roy. Constraint Compilation and Decomposition Algorithms for Sparse Quantum Annealers
10:30 - 11:00	Coffee Break
11:00 - 12:25	**Constraint Solving and Special Purpose Hardware Architectures** ▪ Davide Venturelli. Optimizing Quantum Optimization Algorithms for NISQ Hardware ▪ Pontus Vikstal. Solving the Tail Assignment Problem using a Quantum Approximate Algorithm ▪ Marika Svensson. Applying Bayesian Optimization to the Quantum Approximate Optimization Algorithm for the Tail Assignment Problem
12:30 - 14:00	Lunch
14:00 - 15:30	**Constraint Solving and Special Purpose Hardware Architectures** ▪ Hayato Ushijima. On Modeling Local Search with Special-Purpose Combinatorial Optimization Hardware ▪ Masanao Yamaoka. A Computing Accelerator, CMOS Annealing Machine, to Solve Combinatorial Optimization Problems
15:30 - 16:00	Coffee Break
16:00 - 17:15	**Constraint Solving and Special Purpose Hardware Architectures** • Anthony Silvestre. Solving Constrained Optimisation Problems using Quantum Annealing • Christopher Beck. Solving Wind Farm Optimization Layout on Special Purpose Hardwareg • Maliheh Aramon. Physics-Inspired Optimization for Quadratic Unconstrained Problems Using a Digital Annealer

Monday, September 30, 2019 | Holy Grail Multi-Purpose Room (MPR) Room 108	
8:00 - 17:00	Registration
9:00 - 10:30	**Progress Towards the Holy Grail** ▪ Gene Freuder. Welcome ▪ Pierre Carbonnelle, Gerda Janssens, and Marc Denecker. Abstract Model Generation in Interactive Consultant ▪ Emilie Picard-Cantin, Mathieu Bouchard, Claude-Guy Quimper, and Jason Sweeney. Learning the Parameters of Global Constraints for Medical Scheduling ▪ D. Browne, E. C. Freuder, B. O'Sullivan, S. D. Prestwich. Constraint Acquisition Via Classification. ▪ Arik Senderovich, Kyle E. C. Booth, J. Christopher Beck. Learning Scheduling Models from Event Data
10:30 - 11:00	Coffee Break
11:00 - 12:30	**Progress Towards the Holy Grail** (Invited talks) Xavier Ceugniet. IBM Analytics. A Cognitive Modeling Assistant to Optimize Complex Decisions Michele Lombardi. University of Bologna. Empirical Model Learning Daniel Khashabi. Allen Institute for Artificial Intelligence. "In Pursuit of the Holy Grail" of Natural Language Understanding: Past, Present and Future
12:30 - 14:00	Lunch
14:00 - 15:30	**Progress Towards the Holy Grail (Holy Grail Challenge)** ▪ Guillaume Escamocher and Barry O'Sullivan. Solving Logic Grid Puzzles with an Algorithm that Imitates Human Behavior ▪ Jens Claes, Bart Bogaerts, Rocsildes Canoy, Tias Guns. User-Oriented Solving and Explaining of Natural Language Logic Grid Puzzles ▪ Discussion, Voting, Planning the next Challenge
15:30 - 16:00	Coffee Break
16:00 - 17:30	**Progress Towards the Holy Grail (Interactive)** ▪ Brainstorming: The path to the Holy Grail ▪ Planning: Building a community ▪ Networking: Working together

Monday, September 30, 2019 | ModRef	
8:00 - 17:00	Registration
9:00 - 10:30	**ModRef - Room 132** ▪ Mikael Zayenz Lagerkvist. State Representation and Polyomino Placement for the Game Patchwork ▪ Christian Schulte. Invited Talk: Combinatorial Register Allocation and Instruction Scheduling
10:30 - 11:00	Coffee Break
11:00 - 12:30	**ModRef - Room 132** ▪ Alexander Ek, Maria Garcia De La Banda, Andreas Schutt, Peter J. Stuckey and Guido Tack. Modelling and Solving Online Optimisation Problems ▪ Tias Guns. Increasing modeling language convenience with a universal n-dimensional array, CPpy as python-embedded example ▪ Avi Itzhakov and Michael Codish. Incremental Symmetry Breaking Constraints for Graph Search Problems
12:00 - 14:00	Lunch
14:00 - 15:30	**ModRef - Room 259** ▪ Neng-Fa Zhou. In Pursuit of an Efficient SAT Encoding for the Hamiltonian Cycle Problem ▪ Nina Narodytska. Invited Talk: In Search for a SAT-friendly Binarized Neural Network Architecture
15:30 - 16:00	Coffee Break
16:00 - 17:00	**ModRef - Room 259** ▪ Joan Espasa Arxer, Mateu Villaret, Ian Miguel and Jordi Coll. Towards Lifted Encodings for Numeric Planning in Essence Prime ▪ Gökberk Koçak, Özgür Akgün, Tias Guns and Ian Miguel. Towards Improving Solution Dominance with Incomparability Conditions

Monday, September 30, 2019 | Doctoral Program	
8:00 - 17:00	Registration
9:00 - 9:30	Welcome and Introduction (Room 134)
9:30 - 10:30	**Student Presentations (Theme: Applications) - Room 134** ▪ Lucas Kletzander. Investigating Constraint Programming for Real-Life Rotating Workforce Scheduling Problems ▪ Nicolas Blais. Disjunctive Scheduling with Setup Times: Optimizing a Food Factory ▪ Alexandre Pineault. Tracking Pedestrians using Constraint Programming ▪ Alexandre Mercier-Aubin. Multi-Ressource Scheduling with Setup Times: An Application Case to the Textile Industry
10:30 - 11:00	Coffee Break
11:00 - 12:30	**Student Presentations (Theme: Modeling; Solving) - Room 134** ▪ Jip J. Dekker. An Abstract Machine Model for MiniZinc ▪ Gustav Björdal. Declarative Local-Search Methods ▪ Markus Hecher. Answer Set Solving Exploiting Treewidth and its Limits ▪ Dimosthenis Tsouros. Efficient Methods for Constraint Acquisition (5-minute break) ▪ Philippe Olivier. Measures of Balance in Combinatorial Optimization ▪ Atena Tabakhi. Incomplete Distributed Constraint Optimization Problems ▪ Marc-André Ménard. Sensitivity Analysis in Constraint Programming Through Learning ▪ Alexander Ek. Modelling and Solving Online Optimisation Problems
12:30 - 14:00	Lunch
14:00 - 14:45	Reviewing Panel - Room 218
14:45 - 15:30	**Student Presentations (Theme: Transportation) - Room 218** ▪ Stanislav Murín. Scheduling & Routing by Constraint Programming & Heuristics ▪ Rocsildes Canoy. Preference Learning for Sustainable Freight Transport Planning ▪ Ziye Tang. A Study on the Traveling Salesman Problem with a Drone ▪ Kim Rioux-Paradis. Using Constraint Programming to Optimize the Recharge Operations of a Fleet of Electric Cabs
15:30 - 16:00	Coffee Break

16:00 - 17:35	**Student Presentations (Theme: Constraints; Applications) - Room 218** ▪ Raphaël Boudreault. Explaining Weighted Circuit Constraint Filtering ▪ Hélène Verhaeghe. The extensional Constraint ▪ Yanick Ouellet. Processing Times Filtering for the Cumulative Constraint ▪ Xavier Gillard. Solver Check: Declarative Testing of Constraints ▪ Md Solimul Chowdhury. Exploration via Random Walks in CDCL SAT Amid Conflict Depression (5-minute break) ▪ Cristian Galleguillos. Constraint Programming-based Job Dispatching for Modern HPC Applications ▪ Alexis de Colnet. Dual Hashing-based Algorithms for Discrete Integration (Thesis Summary) ▪ Moira MacNeil. Constraint Programming Approaches to the Discretizable Molecular Distance Geometry Problem
18:00 - 20:00	Doctoral Program Dinner at BarTaco

Tuesday, October 1, 2019	
8:00 - 17:00	Registration
8:30 - 9:30	**Invited talk (Chair: Chris Beck) - Gen Re Auditorium Room 109** Phebe Vayanos. AI/Optimization for the Social Good
9:30 - 9:45	Welcome talk (chairs) - Gen Re Auditorium Room 109
9:45 - 10:15	**CP and Data Science (Chair; Tias Gun) - Gen Re Auditorium Room 109** Ferdinando Fioretto and Pascal Van Hentenryck. Differential Privacy of Hierarchical Census Data: An Optimization Approach
9:45 - 10:15	**Theory (Chair: Sebastian Ordyniak) - Multi-Purpose Room (MPR) Room 108** Artem Kaznatcheev, David A. Cohen and Peter G. Jeavons. Representing fitness landscapes by valued constraints to understand the complexity of local search
10:15 - 11:00	Coffee Break + Posters
11:00 - 12:00	**Applications (Chair: Hana Rudová) - Gen Re Auditorium Room 109** ▪ Cristian Galleguillos, Zeynep Kiziltan, Alina Sirbu and Ozalp Babaoglu. Constraint Programming-based Job Dispatching for Modern HPC Applications ▪ Sara Frimodig and Christian Schulte. Models for Radiation Therapy Patient Scheduling
11:00 - 12:00	**Counting (Chair: Gilles Pesant) - Multi-Purpose Room (MPR) Room 108** ▪ Supratik Chakraborty, Aditya A. Shrotri and Moshe Y. Vardi. On Symbolic Approaches for Computing the Matrix Permanent ▪ Alexis de Colnet and Kuldeep S. Meel. Dual Hashing-based Algorithms for Discrete Integration
12:00 - 13:30	Lunch
13:30 - 14:30	**SAT (Chair: Peter Stuckey) - Gen Re Auditorium Room 109** ▪ Md Solimul Chowdhury, Martin Mueller and Jia-Huai You. Exploiting Glue Clauses to Design Effective CDCL Branching Heuristics ▪ Marijn Heule. Trimming Graphs Using Clausal Proof Optimization
13:30 - 14:30	**Scheduling (Chair: Philippe Laborie) - Multi-Purpose Room (MPR) Room 108** ▪ Giacomo Da Col and Erich Teppan. Industrial Size Job-Shop Scheduling tackled by Present-Day CP Solvers

	▪ John Hooker. Improved Job Sequencing Bounds from Decision Diagrams
14:30 - 14:45	Break
14:45 - 15:45	**Tutorial 1 (Chair: Thomas Schiex) - Gen Re Auditorium Room 109** Tomas Werner. Graphical Models and Constraint Satisfaction
14:45 - 15:45	**Tutorial 2 (Chair: Claude-Guy Quimper) - Multi-Purpose Room (MPR) Room 108** Neng-Fa Zhou. Building a Fast CSP Solver based on SAT
15:45 - 16:30	Coffee Break + Posters
16:30 - 17:30	**ACP Awards (Chair: Maria Garcia de la Banda, Laurent Michel) - Gen Re Auditorium Room 109** **ACP Excellence in Research Award presentation** Peter Stuckey. **2019 ACP Doctoral Dissertation Award** Edward Lam. Hybrid Optimization of Vehicle Routing Problems.
17:30 - 18:00	**Competition Results - Multi-Purpose Room (MPR) Room 108**
18:15 - 20:00	**Welcome reception + Posters on campus**
20:00 - 22:30	ACP Dinner at Flinders Lane

Wednesday, October 2, 2019	
8:30 - 17:00	Registration
8:30 - 9:30	**Invited talk (Chair: Michele Lombardi) - Gen Re Auditorium Room 109** Ian Davidson. Some Adventures in Using Constraints in Machine Learning
9:30 - 9:45	Break
9:45 - 10:15	**Abstract Slot 1 (Chair: Sebastian Ordyniak) - Gen Re Auditorium Room 109** ▪ Rémy Garcia, Claude Michel and Michel Rueher. Searching for Input Data that Exercise Maximal Errors in Floating-Point Computations ▪ Ruiwei Wang and Roland Yap. Arc Consistency Revisited
9:45 - 10:15	**Verification (Chair: Pierre Flener) - Multi-Purpose Room (MPR) Room 108** Grigory Fedyukovich and Aarti Gupta. Functional Synthesis with Examples
10:15 - 11:00	Coffee Break
11:00 - 12:00	**CP and Data Science (Chair: Carmen Gervet) - Gen Re Auditorium Room 109** ▪ Dimosthenis C. Tsouros, Kostas Stergiou and Christian Bessiere. Structure-driven Multiple Constraint Acquisition ▪ John Aoga, Siegfried Nijssen and Pierre Schaus. Modeling Pattern Set Mining using Logical Circuits
11:00 - 12:00	**Verification (Chair: Marijn Heule) - Multi-Purpose Room (MPR) Room 108** ▪ Weikun Yang, Grigory Fedyukovich and Aarti Gupta. Lemma Synthesis for Automating Induction over Algebraic Data Type ▪ Li-Cheng Chen and Jie-Hong Roland Jiang. A Cube Distribution Approach to QBF Solving and Certificate Minimization
12:00 - 13:30	Lunch
12:00 - 13:30	Constraints Editorial Board Lunch at Bedford Thai
13:30 - 14:30	**CP instances (Chair: Ferdinando Fioretto) - Gen Re Auditorium Room 109** ▪ Patrick Spracklen, Nguyen Dang, Özgür Akgün and Ian Miguel. Automatic Streamlining for Constrained Optimisation ▪ Özgür Akgün, Nguyen Dang, Ian Miguel, Andras Z. Salamon and Christopher Stone. Instance Generation via Generator Instances

13:30 - 14:30	**Verification (Chair: Arnaud Gotlieb) - Multi-Purpose Room (MPR) Room 108** ▪ Pedro Orvalho, Miguel Terra-Neves, Miguel Ventura, Ruben Martins and Vasco Manquinho. Encodings for Enumeration-Based Program Synthesis ▪ Xavier Gillard, Pierre Schaus and Yves Deville. SolverCheck: Declarative Testing of Constraints
14:30 - 14:45	Break
14:45 - 15:15	**Parallel and Multi-Agent CP/SAT (Chair: Simon de Givry) - Gen Re Auditorium Room 109** Alexander Schiendorfer and Wolfgang Reif. Reducing Bias in Preference Aggregation for Multiagent Soft Constraint Problems
14:45 - 15:15	**Applications (Chair: Philippe Laborie) - Multi-Purpose Room (MPR) Room 108** Adriana Pacheco, Cédric Pralet and Stephanie Roussel. Decomposition and Cut Generation Strategies for Solving Multi-Robot Deployment Problems
15:15 - 15:45	**Distinguished paper (Chair: Simon de Givry) - Gen Re Auditorium Room 109** Mohd Hafiz Hasan and Pascal Van Hentenryck. The Flexible and Real-Time Commute Trip Sharing Problems
15:45 - 16:30	Coffee Break
16:30 - 17:30	**Best papers (Chair: Thomas Schiex) - Gen Re Auditorium Room 109** ▪ Alex Mattenet, Ian Davidson, Siegfried Nijssen and Pierre Schaus. Generic Constraint-based Block Modeling using Constraint Programming ▪ Rocsildes Canoy and Tias Guns. Vehicle routing by learning from historical solutions
17:30 - 18:30	**25th Anniversary Panel (Moderators: Gene Freuder and Nina Narodytska) - Gen Re Auditorium Room 109** Panel on the past and future of CP. Panelists: Bistra Dilkina, Tias Guns, Claude-Guy Quimper, Pascal Van Hentenryck, John Hooker and Maria Garcia de la Banda
20:00 - 23:00	Banquet at Sign of the Whale

Thursday, October 3, 2019	
8:30 - 9:30	**Invited talk (Chair: Tias Gun) - Gen Re Auditorium Room 109** Bistra Dilkina. Integrating Machine Learning and Discrete Optimization
9:30 - 9:45	Break
9:45 - 10:15	**MaxSAT (Chair: Nina Narodytska) - Gen Re Auditorium Room 109** Mohamed Sami Cherif and Djamal Habet. Towards the Characterization of Max-Resolution Transformations of UCSs by UP-Resilience
9:45 - 10:15	**CP and Life Sciences (Chair: François Fages) - Multi-Purpose Room (MPR) Room 108** S. Akshay, Sukanya Basu, Supratik Chakraborty, Rangapriya Sundararajan and Prasanna Venkatraman. Functional significance checking in noisy biological networks
10:15 - 11:00	Coffee Break
11:00 - 12:00	**MaxSAT (Chair: Nina Narodytska) - Gen Re Auditorium Room 109** ▪ Andreia P. Guerreiro, Miguel Terra-Neves, Ines Lynce, José Rui Figueira and Vasco Manquinho. Constraint-based Techniques in Stochastic Local Search MaxSAT Solving ▪ Emir Demirović and Peter J. Stuckey. Techniques Inspired by Local Search for Incomplete MaxSAT and the Linear Algorithm: Varying Resolution and Solution-Guided Search
11:00 - 12:00	**Decompositions (Chair: Peter Jeavons) - Multi-Purpose Room (MPR) Room 108** ▪ David Mitchell. Guarded Constraint Models Define Treewidth Preserving Reductions ▪ Robert Ganian, Sebastian Ordyniak and Stefan Szeider. A Join-Based Hybrid Parameter for Constraint Satisfaction
12:00 - 13:30	Lunch
13:30 - 14:30	**CP (Chair: Pierre Flener) - Gen Re Auditorium Room 109** ▪ Peter J. Stuckey and Guido Tack. Compiling Conditional Constraints ▪ Nicolas Isoart and Jean-Charles Régin. Integration of structural constraints into TSP models
13:30 - 14:30	**Computational Sustainability (Chair: Willem van Hoeve) - Multi-Purpose Room (MPR) Room 108** ▪ Nadeem Alkurdi, Benjamin Pillot, Carmen Gervet and Laurent Linguet. Towards robust scenarios of spatio-temporal renewable energy planning: A GIS-RO approach

	▪ John M. Betts, David L. Dowe, Daniel Guimarans, Daniel Harabor, Heshan Kumarage, Peter J. Stuckey and Michael Wybrow. Rail Demand Shifting with Passenger Incentives
14:30 - 14:45	Break
14:45 - 15:45	**Tutorial 3 (Chair: Christian Schulte) - Gen Re Auditorium Room 109** Philippe Laborie. Planning/Scheduling with CP Optimizer
14:45 - 15:45	**Tutorial 4 (Chair: Charlotte Truchet) - Multi-Purpose Room (MPR) Room 108** Andrei Bulatov. Complete Characterisation of Tractable Constraint Languages
15:45 - 16:30	Coffee Break
16:30 - 17:00	**Abstract Slot 2 (Chair: Pierre Schaus) - Gen Re Auditorium Room 109** ▪ Bishwamittra Ghosh and Kuldeep S. Meel. Incremental Approach to Interpretable Classification Rule Learning ▪ Amin Hosseininasab, Willem-Jan Van Hoeve and Andre Augusto Cire. Constraint-based Sequential Pattern Mining with Decision Diagrams
16:30 - 17:00	**Abstract Slot 3 (Chair: Thierry Moisan) - Multi-Purpose Room (MPR) Room 108** ▪ Gilles Pesant. From Support Propagation to Belief Propagation in Constraint Programming ▪ Javier Larrosa and Emma Rollon. Augmenting the Power of MaxSAT Resolution
17:00 - 18:15	**ACP General Assembly (Chair: Maria Garcia de la Banda) - Gen Re Auditorium Room 109** ▪ Helmut Simonis and Lucas Kletzander. CP2020/CPAIOR2020 teasers ▪ Maria Garcia de la Banda, Gene Freuder, Thomas Schiex. ACP General Assembly - CP publication discussion (Please read the ACP Publication policy.)
19:00 - 23:00	Wikipedia Hackathon (Room 106)
20:00 - 23:00	SPC dinner at Kouzina

Friday, October 4, 2019	
8:30 - 9:30	**Invited talk (Chair: André Ciré) - Gen Re Auditorium Room 109** Nina Narodytska. Verification and Explanation of Deep Neural Networks
9:30 - 9:45	Break
9:45 - 10:15	**Local Search (Chair: Maria Garcia de la Banda) - Gen Re Auditorium Room 109** Gustav Björdal, Pierre Flener, Justin Pearson and Peter J. Stuckey. Exploring Declarative Local-Search Neighbourhoods with Constraint Programming
9:45 - 10:15	**MIP (Chair: Claude-Guy Quimper) - Multi-Purpose Room (MPR) Room 108** Danuta Sorina Chisca, Michele Lombardi, Michela Milano and Barry O'Sullivan. Logic-Based Benders Decomposition for Super Solutions: an Application to the Kidney Exchange Problem
10:15 - 11:00	Coffee Break
11:00 - 12:00	**CP and Neural Nets (Chair: Nina Narodytska) - Gen Re Auditorium Room 109** ▪ Rodrigo Toro Icarte, León Illanes, Margarita Castro, Andre Cire, Sheila McIlraith and J. Christopher Beck. Training Binarized Neural Networks using MIP and CP ▪ Buser Say, Scott Sanner and Sylvie Thiébaux. Reward Potentials for Planning with Learned Neural Network Transition Models
11:00 - 12:00	**SAT (Chair: Laurent Perron) - Multi-Purpose Room (MPR) Room 108** ▪ Gael Glorian, Jean Marie Lagniez, Valentin Montmirail and Nicolas Szczepanski. An Incremental SAT-Based Approach for Graph Colouring Problem ▪ Carlos Ansótegui, Miquel Bofill, Jordi Coll, Nguyen Dang, Juan Luís Esteban, Ian Miguel, Peter Nightingale, András Salamon, Josep Suy and Mateu Villaret. Automatic Detection of At-Most-One and Exactly-One Relations for Improved SAT Encodings of Pseudo-Boolean Constraints
12:00 - 13:30	Lunch
13:30 - 14:30	**CP and Data Science (Chair: André A. Ciré) - Gen Re Auditorium Room 109** ▪ Meinolf Sellmann, Kevin Tierney and Stefan Kuhlemann. Exploiting Counterfactuals for Scalable Stochastic Optimization

	▪ Hélène Verhaeghe, Siegfried Nijssen, Gilles Pesant, Claude-Guy Quimper and Pierre Schaus. Learning Optimal Decision Trees using Constraint Programming
13:30 - 14:30	**CP and randomness (Chair: Gilles Pesant) - Multi-Purpose Room (MPR) Room 108** ▪ Ciaran McCreesh, William Pettersson and Patrick Prosser. Understanding the Empirical Hardness of Random Optimisation Problems ▪ Giovanni Lo Bianco, Xavier Lorca and Charlotte Truchet. Estimating the Number of Solutions of Cardinality Constraints through range and roots Decomposition
14:30 - 14:45	Break
14:45 - 15:15	**Parallel and Multi-Agent CP/SAT (Chair: Simon de Givry) - Gen Re Auditorium Room 109** Johannes K. Fichte, Markus Hecher and Markus Zisser. An Improved GPU-based SAT Model Counter
14:45 - 15:15	**Applications (Chair: Philippe Laborie) - Multi-Purpose Room (MPR) Room 108** Stanislav Murín and Hana Rudová. Scheduling of Mobile Robots using Constraint Programming
15:15 - 16:00	Coffee Break