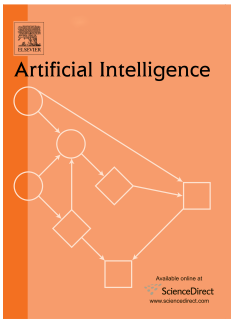
CP 2018

The International Conference on Principles and Practice of Constraint Programming 2018

August 27-31, 2018 - Lille, FRANCE



Horizontal software

SIEMENS
Ingenuity for life

EurAi

HUAWEI

COSLING

ROADEF

N-SIDE
OPTIMIZING YOUR DECISIONS

cril

cnrs

UNIVERSITÉ D'ARTOIS

ACP

afpc

Springer

Program

Monday 27

Constraints & AI Planning

27 August
09:00 - 10:30

(Room 2)

- Malte Helmert.
  AI Planning tutorial

- Invited Talk: Patrik Haslum.
  Planning with State and Trajectory Constraints

Constraints & AI Planning

27 August
11:00 - 12:30

(Room 2)

- Emre Okkes Savas, Chiara Piacentini.
  Extending a MILP Compilation for Numeric Planning Problems to Include Control Parameters

- Elad Denenberg, Amanda Coles.
  Expressive Plannning by Combining Forward Search and Mixed-Integer Programming

- Open discussion

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27 August
14:00 - 15:30

Constraints & AI Planning

(Room 2)

- Invited Talk: Peter Stuckey
  Sequencing Operator Counts
- Augusto B. Corrêa, Florian Pommerening, Guillem Francès
  Relaxed Decision Diagrams for Delete-Free Planning
- Open discussion

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27 August
16:00 - 18:00

Constraints & AI Planning

(Room 2)

- Stéphane Cardon
  GPU-based CSP for Action Planning
- Ionut Moraru, Moisés Martínez, Stefan Edelkamp
  Automated Pattern Selection using MiniZinc
- Guillem Francès, Hector Geffner
  Constraint Propagation and Embedded CSPs in Forward-Search Planning
- Open discussion

Monday 27

Graphs and Constraints

27 August
09:30 - 10:30

(Meeting Room 2)

- Invited Talk: Ciaran McCreesh
  When hard subgraph problems are really hard, and why it matters

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Graphs and Constraints

27 August
11:00 - 12:30

(Meeting Room 2)

- Fraser Dunlop, Peter Nightingale and András Z. Salamon.
  Graph connectivity via local minimality
- Fraser Dunlop, Jessica Enright, Chris Jefferson, Ciaran McCreesh, Patrick Prosser and James Trimble.
  Expression of Graph Problems in a High Level Modelling Language
- Michael Codish, Thorsten Ehlers, Graeme Gange, Avi Itzhakov and Peter J. Stuckey.
  Breaking Symmetries with Lex Implications

Graphs and Constraints

27 August
14:00 - 15:30

(Meeting Room 2)

- Antoine Amarilli and Charles Paperman.
  Topological Sorting with Regular Constraints
- Leonardo Duenas-Osorio, Kuldeep S. Meel, Roger Paredes and Moshe Y. Vardi.
  Counting-Based Reliability Estimation for Power-Transmission Grids
- Robert Ganian, Eun Jung Kim, Friedrich Slivovsky, Stefan Szeider.
  Weighted Counting for Constraint Satisfaction with Default Values: Algorithms and Complexity Results

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Monday 27

27 August
09:00 - 10:30

Progress Towards the Holy Grail

(Meeting Room 1)

- KeyNote: Jean-Franois Puget (IBM)
  Cognitive Optimization
- Invited Talk: Luc De Raedt (KU Leuven)
  Learning Constraints from Examples

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27 August
11:00 - 12:30

Progress Towards the Holy Grail

(Meeting Room 1)

- Michael Sioutis and Amy Loutfi.
  Efficient Dynamic Methods for Qualitative Constraint-based Spatial and Temporal Reasoning
- Sara Sahbaoui and Imade Benelallam.
  Deep learning combined to NLP-based approach for constraint acquisition problems
- Ekaterina Arafailova, Nicolas Beldiceanu.
  Automatically Mining and Proving Generic Invariants on Integer Sequences
- Gilles Pesant.
  From Support Propagation to Belief Propagation in Constraint Programming
- Eugene C. Freuder.
  Complete Explanations

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27 August
14:00 - 15:30

Progress Towards the Holy Grail

(Meeting Room 1)

Panel: Progress Towards the Holy Grail

- Barry O'Sullivan (University College Cork, Ireland): Acquisition
- Ian Miguel (University of St Andrews, Scotland): Modelling
- Holger Hoos (Leiden University, The Netherlands): Solving
- Narendra Jussien (École des Mines d'Albi-Carmaux, France): Explanation

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Progress Towards the Holy Grail

27 August
16:00 - 18:00

(Meeting Room 1)

Discussion: Roadmap for Further Progress

- Scientific: Goals, Milestones, etc.
- Support: Collaborations, Resources, etc.

Monday 27

27 August
14:00 - 15:30

ModRef

(Meeting Room 3)

- Invited Talk: Michele Lombardi.
  Empirical Constraint Model Learning
- Özgür Akgün and Ian Miguel.
  Modelling Langford's Problem: A Viewpoint for Search
- Ruth Hoffmann, Özgür Akgün and Susmit Sarkar.
  Memory Consistency Models using Constraints
- Andrea Rendl and Christina Burt.
  Demand-driven Delivery Staff Rostering

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27 August
16:00 - 18:00

ModRef

(Meeting Room 3)

- Invited Talk: Helmut Simonis.
  Considering Feedback Loops in Constraint Programming Methodology
- Ekaterina Arafailova, Nicolas Beldiceanu, Mats Carlsson, Rémi Douence, María Andreína Francisco Rodríguez and Helmut Simonis.
  A Transducer-Based Model for Representing Functional Constraints on Integer Sequences
- Tias Guns, Peter J. Stuckey and Guido Tack.
  Solution Dominance over Constraint Satisfaction Problems
- Saad Attieh, Christopher Jefferson, Ian Miguel and Peter Nightingale.
  Towards Solving Essence With Local Search: a Proof of Concept Using Sets and Multisets
- Christian Artigues, Emmanuel Hebrard, Yannick Pencolé, Andreas Schutt and Peter J. Stuckey.
  A Study of Evacuation Planning for Wildfires

Monday 27

∗ : 15 minutes of presentation + 5 questions.
∗∗ : 3 minutes of presentation

DP

27 August
09:00 - 09:10

(Room 1)

- Welcome (DP Chairs).

DP

27 August
09:10 - 10:00

(Room 1)

- Invited Talk: Lakdhar Saïs.
  Towards cross-fertilization between Data Mining and Constraints

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DP

27 August
10:00 - 10:30

(Room 1)

- Giovanni Lo Bianco.
  Probabilistic Model to Count Solutions on Cardinality Constraints ∗
- Rohan Fossé.
  On the non-Degeneracy of Unsatisfiability Proof Graphs produced by SAT Solvers ∗∗
- Aditya Shrotri.
  Not All FPRASs are Equal: Demystifying FPRASs for DNF-Counting ∗∗
- Anthony Palmieri.
  Constraint Games for stable and optimal allocation of demands in SDN ∗∗

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27 August
11:00 - 12:30

DP

(Room 1)

- Aurélie Massart.
  *Testing Global Constraints **
- Fanghui Liu.
  *A complete tolerant algebraic side-channel attack for AES with CP ***
- Tomáš Peitl.
  *Portfolio-based algorithm selection for circuit QBFs ***
- Dimosthenis Tsouros.
  *Efficient Methods for Constraint Acquisition ***
- Kiana Zeighami.
  *Towards Automating Learning-based Model Transformation ***
- Massimo Bono.
  *Decremental Consistency Checking of Temporal Constraints: Algorithms for the Point Algebra and the ORD-Horn Class ***
- Rémy Garcia.
  *Towards a constraint system for round-off error analysis of floating-point computation **
- Michał Karpiński.
  *Encoding Cardinality Constraints using Multiway Merge Selection Networks ***
- Jip Dekker.
  *Solver-independent Large Neighbourhood Search ***
- Khoi Hoang.
  *A Large Neighboring Search Schema for Multi-Agent Optimization ***
- Patrick Spracklen.
  *Automatic Generation and Selection of Streamlined Constraint Models via Monte Carlo Search on a Model Lattice ***
- Ghiles Ziat.
  *Finding solutions by finding inconsistencies ***
- Heytem Zitoun.
  *Sub-domain Selection Strategies For Floating Point Constraint Systems **

DP

27 August
14:00 - 14:50

(Room 1)

- Invited Talk: Claude-Guy Quimper.
  Improving the Energetic Reasoning: How I followed 15-year-old advice from my supervisor

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DP

27 August
14:50 - 15:30

(Room 1)

- Mathieu Collet.
  *Constraint-based Generation of Trajectories for Single-Arm Robots **
- Saad Attieh.
  *Local search of Essence, a proof of concept **

DP

27 August
16:00 - 18:00

(Room 1)

- Shan He.
  *A Fast and Scalable Algorithm for Scheduling Large Numbers of Devices under Real-Time Pricing ***
- Mohamed-Bachir Belaid.
  *A Global Constraint for Mining Generator Itemsets **
- Dimitri Justeau-Allaire.
  *Unifying Reserve Design Strategies with Graph Theory and Constraint Programming ***
- Gökberk Koçak.
  *Maximal Frequent Itemset Mining with Non-monotonic Side Constraints **
- Linnea Ingmar.
  *Making Compact-Table Compact ***
- Maxime Chabert.
  *A Global Constraint for the Exact Cover Problem: Application to Conceptual Clustering ***
- Arthur Godet.
  *Deriving filtering algorithms from approximation algorithms: zoom on the Bin Packing problem **
- James Trimble.
  *Three New Approaches for the Maximum Common Edge Subgraph Problem **

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27 August
19:30 - 22:00

DP Dinner

Tuesday 28

Welcome

28 August
08:45 - 09:00

Invited Talk

28 August
09:00 - 10:00

Constraints at the Heart of Classical Planning

Malte Helmert (University of Basel, Switzerland)

(Auditorium - Chair: John Hooker)

The last two decades have seen significant advances in domain-independent planning. Besides improved scalability through better planning algorithms, several breakthroughs have been made in the theoretical understanding of classical planning heuristics. This talk discusses the critical role that constraints play in the modern theory of classical planning heuristics and presents the new opportunities and challenges brought about by a constraint-based view of classical planning.

Learning

28 August
10:30 - 12:10

(Auditorium - Chair: Eugene Freuder)

- Holger Hoos, Tomáš Peitl, Friedrich Slivovsky and Stefan Szeider.
  Portfolio-based algorithm selection for circuit QBFs

- Dimosthenis C. Tsouros, Kostas Stergiou and Panagiotis G. Sarigiannidis.
  Efficient methods for constraint acquisition

- Kiana Zeighami, Kevin Leo, Guido Tack and Maria Garcia De La Banda.
  Towards semi-automatic learning-based model transformation

- Edward Zulkoski, Ruben Martins, Christoph M. Wintersteiger, Robert Robere, Jia Liang, Krzysztof Czarnecki and Vijay Ganesh.
  Learning sensitive backdoors with restarts

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28 August
10:30 - 12:10

Data Analysis Track

(Room 2 - Chair: Tias Guns)

- Christian Bessiere, Nadjib Lazaar and Mehdi Maamar.
  Users constraints in itemset mining
- Said Jabbour, Fatima Ezzahra Mana, Imen Ouled Dlala, Badran Raddaoui and Lakhdar Sais.
  On maximal frequent itemsets mining with constraints
- Imen Ouled Dlala, Said Jabbour, Badran Raddaoui and Lakhdar Sais.
  A parallel SAT based framework for closed frequent itemsets mining
- Hong Xu, Sven Koenig and T. K. Satish Kumar.
  Effective deep learning for constraint satisfaction problems

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28 August
14:00 - 15:00

Tutorial 1

(Room 2)

- Robert Fourer
  Model-Based Optimization: Principles and Trends (AMPL)

  As optimization methods have been applied more broadly and effectively, a key factor in their success has been the adoption of a model-based approach. A researcher or analyst focuses on modeling the problem of interest, while the computation of a solution is left to general-purpose, off-the-shelf solvers; independent modeling languages and systems manage the difficulties of translating between the human modelers ideas and the computer softwares needs. This tutorial introduces model-based optimization with examples from the AMPL modeling language and various popular solvers; the presentation concludes by surveying current software, with special attention to the role of constraint programming

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28 August
14:00 - 15:00

Tutorial 2

(Auditorium)

- Özgür Akgün, Peter Nightingale.
  Automated Modelling with Conjure and Savile Row

  Effective modelling has been recognised as a key challenge in constraints for many years. We describe an approach to automated modelling at two different levels of abstraction: class-level model generation and instance-level model reformulation. The former is realised in Conjure: it produces multiple solver-independent models from an Essence problem specification. The latter is performed by Savile Row: it produces tailored models for one of several target solvers. Together they comprise a pipeline of tools that require minimal input from a user to perform high-performance constraint solving.

CP with quantifiers

28 August
15:00 - 15:50

(Room 2 - Chair: Maria Garcia De La Banda)

- Florian Lonsing and Uwe Egly.
  Evaluating QBF solvers: Quantifier alternations matter
- Florent Madelaine and Stéphane Secouard. *The quantified valued constraint satisfaction problem*

CP/OR Track

28 August
15:00 - 15:50

(Auditorium - Chair: Laurent Michel)

- Waldemar Cruz, Fanghui Liu and Laurent Michel.
  Securely and automatically deploying micro-services in an hybrid cloud infrastructure
- Alexander Tesch. *Improving energetic propagations for cumulative scheduling*

Panel: CP and Automated Planning

28 August
16:15 - 17:15

(Auditorium)

CP competitions

28 August
17:15 - 18:00

(Auditorium)

- XCSP3 competition
- Minizinc challenge

Welcome reception

28 August
18:00 - 20:00

Wednesday 29

29 August
09:00 - 10:00

Invited Talk

Towards the Holy Grail in Machine Learning

James Cussens (University of York, UK)

(Auditorium - Chair: John Hooker)

The holy grail in machine learning—like that in CP—is that the user merely states the (machine learning) problem and the system solves it for them. In the Bayesian approach the user would state what they know as a prior distribution and then a posterior distribution is learned by conditioning on the observed data. Point estimates, expectations, predicted values and so on can then be extracted from this posterior.

The reality of machine learning is rather different (witness gradient descent by grad student in deep learning!) but progress towards this holy grail is happening right now with the development of probabilistic programming languages like stan. I will argue that the CP community has a contribution to make here. In particular, where the discrete structure of probabilistic model has to be learned (rather than just the continuous parameters of a given model) CP has much to offer. Constraints are also the natural choice when we wish to provide the user with a flexible and expressive language in which to declare any domain knowledge. I will use a number of examples of how CP is already being used in machine learning, including (but not restricted to) my own work on using integer programming to learn the structure of Bayesian networks.

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29 August
10:30 - 12:10

SAT/SMT

(Room 2 - Chair: Lakdhar Saïs)

- Johannes K. Fichte, Markus Hecher, Neha Lodha and Stefan Szeider.
  An SMT approach to fractional hypertree width
- Gael Glorian, Jean Marie Lagniez, Valentin Montmirail and Michael Sioutis.
  An incremental SAT-based approach to reason efficiently on qualitative constraint network
- Saurabh Joshi, Prateek Kumar, Ruben Martins and Sukrut Rao.
  Approximation strategies for incomplete maxSAT
- Kuldeep S. Meel, Aditya A. Shrotri and Moshe Y. Vardi.
  Not all FPRASs are equal: Demystifying FPRASs for DNF-counting

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Application Track

29 August
10:30 - 12:10

(Auditorium - Chair: Meinolf Sellmann)

- Gleb Belov, Tobias Czauderna, Maria Garcia De La Banda, Matthias Klapperstueck, Ilankaikone Senthooran, Mark Wallace, Michael Wybrow and Mitch Smith.
  Process plant layout optimization: Equipment allocation

- Quentin Cappart, Charles Thomas, Pierre Schaus and Louis-Martin Rousseau.
  A constraint programming approach for solving patient transportation problems

- Dimitri Justeau-Allaire, Philippe Birnbaum and Xavier Lorca.
  Unifying reserve design strategies with graph theory and constraint programming

- Anthony Palmieri, Arnaud Lallouet and Luc Pons.
  Constraint Games for stable and optimal allocation of demands in SDN

Tutorial 3

29 August
14:00 - 15:00

(Room 2)

- Peter Stuckey and Guido Tack.
  MiniZinc: An Expressive Extensible Modelling Language MiniZinc is a modelling language that incorporates some features of general programming languages. The user can write predicates and functions to encapsulate modelling concepts that they wish to reuse within and across models. Predicates capture global constraints, making MiniZinc a natural language for modelling CP problems. MiniZinc translates a user's model into a form that is required for a target solver, whether it is a CP, MIP, SMT or local search solver. This allows easy experimentation with different solvers and solving technology for the same problem.

  In this tutorial we will demonstrate how to rapidly build applications with MiniZinc, and illustrate some of the new features of MiniZinc 2.2.0 including building teaching projects that provide automatic feedback, automatic modelling improvement suggestions using Globalizer, and debugging incorrect models using hierarchical Minimal Unsatisfiable Set (MUS) detection.

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29 August
14:00 - 15:00

Tutorial 4

(Auditorium)

- Jimmy Liang.
  Machine Learning for SAT Solvers

  SAT solvers heavily rely on a handful of heuristics for their surprising effectiveness in solving large practical instances. In this tutorial, we first review the inner workings of modern solvers and what makes them so effective. We then discuss the design of recent machine learning-based heuristics with the objective of minimizing running time by leveraging the enormous amount of data generated by SAT solvers.

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29 August
15:00 - 15:50

SAT solvers

(Room 2 - Chair: Stefan Szeider)

- Rohan Fossé and Laurent Simon.
  On the non-degeneracy of unsatisfiability proof graphs produced by SAT solvers
- Edward Zulkoski, Ruben Martins, Christoph M. Wintersteiger, Jia Liang, Krzysztof Czarnecki and Vijay Ganesh.
  The effect of structural measures and merges on SAT solver performance

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29 August
15:00 - 15:50

Applications and Power System Management Tracks

(Audtorium - Chair: Bhagyesh Patil)

- Carlos Ansotegui, Meinolf Sellmann, and Kevin Tierney.
  Self-configuring cost-sensitive hierarchical clustering with recourse
- Shan He, Mark Wallace, Campbell Wilson, Ariel Liebman and Graeme Gange.
  A fast and scalable algorithm for scheduling large numbers of devices under real-time pricing

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29 August
16:15 - 17:30

Awards

(Auditorium - Chair: Laurent Michel)

- **ACP Distinguished Service Award presentation**
  Michela Milano
- **CP 2018 Best Paper Award**
  Emmanuel Hebrard and George Katsirelos.
  Clause learning and new bounds for graph coloring
- **2018 ACP Doctoral Dissertation Award**
  Ciaran McCreesh.
  Solving hard subgraph problems in parallel

Upcoming conference announcements and ACP meeting

29 August
17:30 - 18:45

Thursday 30

30 August
09:00 - 10:00

Invited Talk

Potential Applications of CP in Industrial Scheduling

Srinivas Bollapragada (General Electric Global Research Center, USA)

(Auditorium - Chair: John Hooker)

Scheduling and planning algorithms have the potential to realize significant gains in key industrial sectors such as rail, aviation, power, oil & gas, and healthcare. Improving system level efficiencies even by one percent can save billions of dollars per year in each of these sectors. For example, increasing the average speed of trains by one mile per hour saves the rail industry $2.5 billion per year. This talk will describe some of our optimization algorithms based industrial applications that saved hundreds of millions of dollars for our customers.

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30 August
10:30 - 12:10

Symmetry, Learning, and Noise Analysis

(Auditorium - Chair: Charlotte Truchet)

- Graeme Gange and Peter J. Stuckey.
  Sequential precede chain for value symmetry elimination
- Martin Cooper, Wafa Jguirim and David Cohen.
  Domain reduction for valued constraints by generalising methods from CSP
- Dmitry Malioutov and Kuldeep S. Meel.
  MLIC: A maxSAT-based framework for learning interpretable classification rules
- Guillaume Perez, Brendan Hogan Rappazzo and Carla Gomes.
  Extending the capacity of 1/f noise generation

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30 August
10:30 - 12:10

Multiagent & Parallel CP Track

(Room 2 - Chair: William Yeoh)

- Liel Cohen and Roie Zivan.
  Balancing asymmetry in max-sum using split constraint factor graphs
- Khoi Hoang, Ferdinando Fioretto, William Yeoh, Enrico Pontelli and Roie Zivan.
  A large neighboring search schema for multi-agent optimization
- Vadim Levit and Amnon Meisels.
  Distributed constrained search by selfish agents for efficient equilibria

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Tutorial 5

30 August
14:00 - 15:00

(Auditorium)

- Sebastién Lannez.
  Xpress Mosel tutorial: Modelling and Solving Optimization Problems with Various Solvers

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Testing and Verification Track

30 August
14:00 - 14:50

(Room 2 - Chair: Nadjib Lazaar)

- Özgür Akgün, Ian Gent, Christopher Jefferson, Ian Miguel and Peter Nightingale.
  Metamorphic testing of constraint solvers
- Saeed Nejati, Jan Horacek, Catherine Gebotys and Vijay Ganesh.
  Algebraic fault attack on SHA hash functions using programmatic SAT solvers

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Excursion in Lille

30 August
16:00 - 18:00

Dinner Gala (Omnia restaurant)

30 August
19:00 - 23:00

Friday 31

31 August
09:00 - 10:15

Table constraints

(Auditorium - Chair: George Katsirelos)

- Özgür Akgün, Ian Gent, Christopher Jefferson, Ian Miguel, Peter Nightingale and András Salamon.
  Automatic discovery and exploitation of promising subproblems for tabulation
- Linnea Ingmar and Christian Schulte.
  Making compact-table compact
- Anthony Schneider and Berthe Choueiry.
  PW-CT: Extending Compact-Table to Enforce Pairwise Consistency on Table Constraints

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31 August
09:00 - 10:15

Temporal constraints

(Room 2 - Chair: Arnaud Lallouet)

- Arthur Bit-Monnot.
  A Constraint-based encoding for domain-independent temporal planning
- Massimo Bono and Alfonso Emilio Gerevini.
  Decremental consistency checking of temporal constraints: Algorithms for the point algebra and the ORD-Horn class
- Jasper C. H. Lee, Jimmy H. M. Lee and Allen Z. Zhong.
  Augmenting stream constraint programming with eventuality conditions

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31 August
10:45 - 12:00

Global constraints

(Room 2 - Chair: Gilles Pesant)

- Roberto Amadini, Graeme Gange and Peter J. Stuckey.
  Propagating regular membership with dashed strings
- Michał Karpiński and Marek Piotrów.
  Encoding cardinality constraints using multiway merge selection networks
- Philippe Vismara and Nicolas Briot.
  A circuit constraint for multiple tours problems

Search

31 August
10:45 - 12:00

(Auditorium - Chair: Guido Tack)

- Anthony Palmieri and Guillaume Perez.
  Objective as a feature for robust search strategies
- Patrick Spracklen, Özgür Akgün and Ian Miguel.
  Automatic generation and selection of streamlined constraint models via Monte Carlo search on a model lattice
- Ghiles Ziat, Marie Pelleau, Charlotte Truchet and Antoine Miné.
  Finding solutions by finding inconsistencies

Applications

31 August
13:30 - 14:20

(Auditorium)

- Meriem Khelifa, Dalila Boughaci and Esma Aimeur.
  A novel graph-based heuristic approach for solving sport scheduling problem
- Fanghui Liu, Waldemar Cruz and Laurent Michel.
  A complete tolerant algebraic side-channel attack for AES with CP

Local search

31 August
13:30 - 14:20

(Room 2 - Chair: Emir Demirović)

- Jip J. Dekker, Maria Garcia De La Banda, Andreas Schutt, Peter J. Stuckey and Guido Tack.
  Solver-independent large neighborhood search
- Emir Demirovi, Geoffrey Chu and Peter J. Stuckey.
  Solution-based phase saving for CP: A value-selection heuristic to simulate local search behavior in complete solvers

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Restaurant / Drinks

Restaurants

There are plenty of restaurants in Lille. If you look for a specific kind of restaurant look at tripadvisor. Here is a short selection of some of our favorite places.

Estaminets / Regional / Bistrot

- Les 3 Brasseurs. 22 place de la Gare. (phone: +33 3 20 06 46 25). Good choice for lunch: quick and cheap - They brew their own Beers
- Le Bistrot Lillois. 40 rue de Gand. (phone: +33 3 20 14 04 15) Our favorite Estaminet, main course around 15 euros.
- Chez la vieille. 60 rue de Gand. (phone: +33 3 28 36 40 06) Main course around 15 euros
- Le Barbue d'Anvers. 1 bis rue Saint Etienne. (phone: +33 3 20 55 11 68). Menu 34 euros.
- La petite table. 59 rue de la monnaie. Main around 14 euros
- La Chicorée. 15 place Rihour. (phone: +33 3 20 54 81 52) Bistrot - open 24/24 - quick - ideal for lunch (Menu start at 12.50 euros)

Italian

- In Bocca al Luppo. 1 rue des vieux murs. (phone: +33 3 20 06 39 98) The best Italian restaurant in town. Main course around 15 euros.
- La Bottega (Pizzeria). 7 bis rue au Peterinck.. (phone: +33 3 20 74 33 12) Clearly the best Pizzas in town. Pizzas around 12 euros.
- Il Ristorante. 51 rue des tanneurs. (phone: +33 3 20 07 21 12). Main from 13 euros

Asian

- Kyoto (Japonese). 44 place de la Gare. (phone: +33 3 20 74 53 60). Menus from 10 euros
- Elephant Thai (Thai). 31 Rue des Ponts de Comines. (phone: +33 3 20 78 69 14)
- La Table du Siam (Thai). 79 rue de la monnaie. (phone: +33 3 20 55 75 57)

Crêperie (Pancakes)

- La petite flambée. 4 rue du Cure St Etienne (phone: +33 3 20 55 64 34). Menu 16 euros (dinner)

Sandwiches / Soups / Burgers

- Spok. 15 rue saint Jacques (phone: 09 54 51 73 22). Gourmet Burgers, Salad, Daily lunches - Small but good place.
- Peek a Boo. 92 rue de l'Hôpital Militaire (phone: +33 3 20 57 05 15). Gourmet Burgers / Bagels, Soup

Vegetarian/Bio

- La Source. 13 rue du plat (phone: +33 3 55 40 30 45). Main (vegetables/cereals) 13.40 euros

Français / Gastronomic

- Bloempoet. 22 Rue des Bouchers. Menus 34 euros
- Gabbro. 55 rue saint Andre. (phone: +33 3 20 39 05 51). Menu 36 euros
- Monsieur Jean. 12 rue de Paris. (phone: +33 3 28 07 70 72) Menu 32 euros (25 euros for Main + (Starter or Dessert))
- Rouge Barre. 50 rue de la Halle. (phone: +33 3 20 67 08 84). Menu 28 euros (21 euros for Main + (Starter or Desert))
- Le Domaine de Chavagnac. 43 rue de Gand. (phone: +33 3 20 06 53 51). From South-West of France: cassoulet, duck, etc. Menu 24 euros - cassoulet 15 euros.

All you can Eat

- Tiger Wok (Wok - Choose & Cook). 45 rue des Tanneurs (phone: +33 3 20 14 91 60)
- Le Flam's. 8 rue du Pas (phone: +33 3 20 54 18 38). Flammekueche. From 12.40 euros.

Other

- Lakson (Scandinavian). 21 rue du curé Saint-Etienne (phone: +33 3 20 31 19 96). Nordic Plate. 16 euros.
- Unami (Tea and Chinese lunches). 8 rue Saint-Jacques

Bars

There are two main areas with a high bar density. The first one is the "Vieux-Lille", at the intersection between Rue Royale and Rue Esquermoise. The second one is Solferino/Massena, that is the whole rue Massena and the part of the Rue Solferino near the intersection with rue Massena. So you have plenty of possibilities. We just give you some suggestions

Beer bar

- La Capsule. 25 Rue des trois Mollettes
- L'illustration. 1 Rue Doudin
- L'autrement dit. 14 Rue Royale
- Gastama. 109 Rue Saint-André
- Au Carre Des Halles. 3 Rue des Primeurs

Vodka bar

- Le Kremlin. 51 Rue Jean Jacques Rousseau

Rhum bar

- La Pirogue. 16 Rue Jean Jacques Rousseau

Wine bar

- La part des anges. 50 Rue de la Monnaie

Tea

- Unami. 8 rue Saint-Jacques (Best Chinese/Japonese Teas)
- Meert. 27 rue Esquermoise (English Tea place, a little bit expensive, but a typical place)
- Elisabeth's. 71 rue basse (English Tea and Cakes place)