

Dagstuhl Seminar 17381
Recent Trends in Knowledge Compilation

MONDAY, September 18, 2017

09:00-10:00 Seminar intro

10:00-10:30 Coffee Break

10:30-11:30 Guy Van den Broeck: First-Order Knowledge
Compilation

11:30-12:00 Frédéric Koriche: On Compiling (Online) Combinatorial
Learning Problems

12.15 Lunch

Free Time (e.g., for discussions and group work)

15.30-16:00 Coffee and Cake

16:00-16:30 Wannes Meert: Probabilistic Logic Programming and
Knowledge Compilation

16:30-17:00 Dan Olteanu: In-Database Factorized Learning

17:00-17:30 Scott Sanner: Compiling Deep Nets

17:30-18:00 Shin-ichi Minato: BDD/ZDD-based knowledge
indexing and real-life applications

18.00 Dinner

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TUESDAY, September 19, 2017

9:00-10:00 Paul Beame: Knowledge Compilation: Representations and Lower Bounds

10:00-10:30 Coffee Break

10:30-11:00 Florent Capelli: Non FPT Lower Bounds for Restricted Decision DNNF

11:00-11:30 Igor Razgon: Partial matching width and lower bounds for read-once branching programs

11:30-12:00 Stefan Mengel: A Dichotomy for Compiling Constraint Satisfaction Problems to Read-Once Decision Diagrams

12:15 Lunch

Free Time

15.30-16:00 Coffee and Cake

16:00-16:30 Ronald de Haan: A framework for parameterized compilability

16:30-17:00 Robert Ganian: A Structural Approach to Model Counting

17:00-18:00 Open Problem Session

18.00 Dinner

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Wednesday, September 20, 2017

9:00-10:00 Simone Bova: Updating the Knowledge Compilation Map (Tutorial)

10:00-10:30 Coffee Break

10:30-11:00 Antoine Amarilli: A Circuit-Based Approach to Efficient Enumeration

11:00-11:30 Pierre Bourhis: Provenance for tree-like instances : a bridge between database and knowledge compilation

11:30-12:00 Pierre Senellart: Provenance Circuits and Knowledge Compilation in ProvSQL

12:00 Group Photo

12:15 Lunch

14:00 Hike (weather permitting)

15.30-16:00 Coffee and Cake

16:00-18:00 Free Time

18.00 Dinner

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THURSDAY, September 21, 2017

9:00-10:00 Martin Grohe: Colour Refinement: A Simple Partitioning Algorithm with Applications From Graph Isomorphism Testing to Machine Learning

10:00-10:30 Coffee Break

10:30-11:00 Ondrej Cepek: Knowledge compilation and compression using interval representations of Boolean functions

11:00-11:30 YooJung Choi: Using Knowledge Compilation to Solve $PP^{\wedge}PP$ -Complete Problems

11:30-12:00 Batya Kenig: Efficiently Enumerating Minimal Triangulations

12:15 Lunch

Free Time

15.30-16:00 Coffee and Cake

16:00-16:30 Laurent Simon: Just in Time Knowledge Compilation

16:30-17:00 Joao Marques-Silva: SAT by MaxSAT: From NP to Beyond NP and Back Again

17:00-18:00 System Presentations

18.00 Dinner

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FRIDAY, September 22, 2017

09:00-09:30 Oliver Kullmann: Solving very hard SAT problems: a form of partial KC

09:30-10:00 Simone Bova: Circuit Treewidth, Sentential Decision, and Query Compilation

10:00-10:30 Coffee Break

10:30-11:00 Alexandre Niveau: Efficient Representations for the Modal Logic S5

11:00-11:30: Lisset Y. Salinas Pinacho: From knowledge of humans performing everyday activities to the service robots

11:30-12:00 Jean-Marie Lagniez: Inside d4

12:15 Lunch

END OF SEMINAR