Dagstuhl Seminar Programme

All times are CEST (local Dagstuhl time)!!

For remote participation, the zoom link is
https://dagstuhl-de.zoom.us/j/8407859125?pwd=OGJPWWt5M1BNM2ZNzd2NBWnNzVVhjUT09

Monday 06/09/21 Introductions

10:30 Opening
10:40 Introduction to SAT [Matti Järvisalo]
11:40 Discussion
12:00 Lunch Break
14:00 Introduction to Description Logics [Ian Horrocks]
15:00 Discussion
15:20 Topics:
   • Propositional reasoning in DL solvers: past experience and new ideas?
   • Theory on 'hard (and easy) cases': phase transitions, parameterised complexity and its explanatory power on reasoner performance
15:30 Coffee Break
16:00 Parameterized Complexity of SAT & Related Problems [Stefan Szeider]
16:30 Discussion

Tuesday 07/09/21 Benchmarks

10:30 Existing benchmarks from DL [David Tena Cucala]
11:00 Existing SAT competitions & benchmarks [Matti Järvisalo]
11:30 Discussion
12:00 Lunch Break
14:00 SGGS decision procedures for fragments of first-order logic [M. P. Bonacina]
15:00 Existing SMT competitions & benchmarks [Cesare Tinelli]
15:30 Coffee Break
16:00 Discussion
16:00 Topics:
   • Benchmarks: random/artificial/real/...experience and views?
   • Competitions: how to promote development of benchmarks and reasoners? How to keep them up-to-date/fresh?

Wednesday 08/09/21 Syntax, infrastructure, and APIs

10:30 SAT: clauses and beyond? [Alexey Ignatiev]
11:00 Scaling SAT/MaxSAT encodings to large instances with SLIM [Stefan Szeider]
11:30 Discussion
12:00 Lunch Break
14:00 **DL: OWL and the OWL API...is it all sorted?** [tba]
15:00 Discussion
15:20 Topics:
  - Dealing with datatypes: (how) can we share the pain across developers?

**Thursday 09/09/21 Non-standard/new reasoning problems**

10:30 **SAT: beyond min/max-SAT, etc.** [Jean-Marie Lagniez]
11:00 **Proofs, proof checkers, trust, and certification** [Jakob Nordstrom]
12:00 Lunch Break
15:00 Discussion
15:20 Topics:
  - DL: kernels/justifications/provenance [Ana Ozaki]
  - DL proofs?

**Friday 10/09/21 Wrap-up and next steps**