September 8–13, 2019, Dagstuhl Seminar 19371
Deduction Beyond Satisfiability
Tentative Schedule

Monday, 09.09.19

09:00  **Session 1: Welcome & Introductions**  
Chair: Carsten Fuhs  
Welcome  
The organisers  
Introductions  
All participants

10:30  Tea/Coffee Break

11:00  **Session 2: Proof Reconstruction**  
Chair: Cesare Tinelli  
Proofs in SMT  
*Haniel Barbosa, Jasmin Blanchette, Pascal Fontaine, Hans-Jörg Schurr*  
Proof reconstruction in conflict-driven satisfiability  
*Maria Paola Bonacina, Stéphane Graham-Lengrand, Natarajan Shankar*

12:15  Lunch

14:00  **Session 3: Program Analysis**  
Chair: Carsten Fuhs  
Abstract Execution  
*Reiner Hähnle, Dominic Steinhöfel*  
Code commutation  
*Albert Rubio*  
Loop Acceleration for Under-Approximating Program Analysis  
*Florian Frohn, Jürgen Giesl, Marc Brockschmidt, Matthias Naaf*

15:30  Tea/Coffee + Cake

16:15  **Session 4: HO Proofs & Programs, Generic Reasoning**  
Chair: Renate Schmidt  
Proof Checking in Zipperposition  
*Alexander Bentkamp, Simon Cruanes*  
A Fixpoint Logic and Dependent Effects for Temporal Property Verification  
*Yoji Nanjo, Hiroshi Unno, Eric Koskinen, Tachio Terauchi*  
Saturation Theorem Proving: From Inference Rules to Provers  
*Uwe Waldmann, Sophie Tourret, Simon Robillard, Jasmin Blanchette*

18:00  Dinner
Tuesday, 10.09.19

09:00  **Session 5: QBF**  
Tractable QBF and model counting via Knowledge Compilation  
*Florent Capelli*  
Proof Systems for Quantified Boolean Formulas  
*Martina Seidl*

10:00  **Tea/Coffee Break**

10:30  **Session 6: Applications**  
Network Verification at Hyperscale: Challenges and Opportunities  
*Andrey Rybalchenko*  
Correct-by-Decision Solving and Applications  
*Alexander Nadel*  
The Logical ECU  
*Christoph Weidenbach*

12:15  **Lunch**

14:00  **Session 7: Proof analysis, induction**  
Algorithmic Analysis of Proofs via CERES  
*Alexander Leitsch*  
Inductive Inference with Recursion Analysis in Separation Logic  
*Quang Loc Le*  
Efficient Validation of FOLID Cyclic Induction Reasoning  
*Sorin Stratulat*

15:30  **Tea/Coffee + Cake**

16:15  **Session 8: Description Logics, Abduction, Forgetting**  
Forgetting-Based Abductive Reasoning and Inductive Learning in Ontologies  
*Warren Del-Pinto, Renate A. Schmidt*  
Abduction in DL by translation to FOL  
*Sophie Tourret, Patrick Koopmann, Christoph Weidenbach*  
Forgetting for Computing Snap-Shots of Ontologies: Progress and Challenges  
*Renate Schmidt*

18:00  **Dinner**
Wednesday, 11.09.19

09:00  Session 9: XXX (2 x 30 min slots)  Chair: XXX

10:00  Tea/Coffee Break

10:30  Session 10: XXX (3 x 30 min slots)  Chair: XXX

12:15  Lunch

14:00  Excursion
Thursday, 12.09.19

09:00  Session 11: XXX (2 x 30 min slots)  

10:00  Tea/Coffee Break

10:30  Session 12: XXX (3 x 30 min slots)

12:15  Lunch

14:00  Session 13: XXX (3 x 30 min slots)

15:30  Tea/Coffee + Cake

16:15  Session 14: XXX (3 x 30 min slots)

18:00  Dinner
Friday, 13.09.19

09:00  Session 11: XXX (2 x 30 min slots)  Chair: XXX

10:00  Tea/Coffee Break

10:30  Session 12: XXX (3 x 30 min slots)  Chair: XXX

12:15  Lunch

14:00  Departure