

SCHEDULE

All times include questions/discussion. Most 30' talks that were proposed early were given longer slots in the interest of clarity and discussion. As more talks were added this was less and less feasible. The term “tutorial” is used liberally to mean a tutorial or simply a longer talk.

Monday November 20, 2023

09:00 Opening, Introduction, Organization

09:30 Tutorial: Haniel Barbosa: Intro to SMT proofs – Towards Increasing Proof Automation in Lean via SMT Proofs

10:30 Coffee/tea break

11:00 Tutorial: Andrew Reynolds: Proofs in CVC5 – New Directions with AletheLF

12:00 Discussion

12:15 Lunch

14:00 Hanna Elif Lachnitt: CVC5 Integration with Isabelle/HOL

14:45 Pascal Fontaine: On the Need for a Modular Approach for Automated Reasoners

15:30 Cake

16:00 Silvio Ghilardi: Interpolation Properties for Array Theories – Positive and Negative Results

16:45 Franz Baader: How to Combine Explanations – The Case of Description Logics with Concrete Domains

17:30 Discussion

18:00 Dinner

Tuesday November 21, 2023

09:30 Tutorial: Maria Paola Bonacina: The QSMA Algorithm

10:30 Coffee/tea break

11:00 Tutorial: Feifei Ma and Fuqi Jia: Solving Reasoning Problems with Neuro-Symbolic Methods

12:00 Discussion

12:15 Lunch

14:00 Cynthia Kop: Higher-Order Constrained Rewriting

14:45 Jasper Nalbach: A Compositional Proof System for Cylindrical Algebraic Decomposition

15:30 Cake

16:00 Sophie Touret: Formalizing the Splitting Framework

16:45 Uwe Waldmann: On the (In-)Completeness of Destructive Equality Resolution in the Superposition Calculus

17:30 Discussion

18:00 Dinner

Wednesday November 22, 2023

09:30 Fuqi Jia: Improving SMT Solving via Incorporating More Techniques
10:00 Clare Dixon: Compositionality – From Temporal Logics to Verification of Autonomous Robot Systems
10:45 Coffee/Tea break
11:15 Claudia Schon: Using Word Similarities to Guide Resolution
11:45 Konstantin Korovin: From Instantiation to Superposition with a Touch of Machine Learning
12:15 Lunch
14:00 Outing (excursion to Bernkastel-Kues followed by banquet at Landgasthof Paulus)

Thursday November 23, 2023

09:00 Tutorial: Christoph Weidenbach: The SCL Calculus and its Implementation
10:10 Viorica Sofronie-Stokkermans: Hierarchical Reasoning and Symbol Elimination and Applications to the Verification of Parametric Systems
10:45 Coffee/Tea break
11:15 Amy Felty: Reasoning with Structured Contexts of Assumptions
11:50 Break
12:15 Lunch
13:30 Martina Seidl: On QBF Proof Systems
14:10 Geoff Sutcliffe: TPTP World Standards and Tools for Tarskian and Kripke Interpretations
14:50 Antti Hyvärinen: Formal Verification at Certora
15:30 Cake
16:00 Alex Steen: Finding Short Proofs
16:40 Florian Rabe: Aspects of Knowledge for Next Generation Systems
17:20 Catherine Dubois: (Re)Verification of Proofs with Coq or Dedukti
18:00 Dinner

Friday November 24, 2023

09:00 Konstantin Korovin: Analyzing and Optimizing Systems Represented by Nonlinear Arithmetic
09:30 Martin Desharnais: An Isabelle/HOL Formalization of the SCL(FOL) Calculus
10:00 Nick Smallbone: Extending a Unit Equality Prover
10:30 Coffee/Tea break
11:00 Jakob Nordström: A Unified Proof System for Discrete Combinatorial Problems
11:40 David Déharbe: On Formal Verification at CLEARSY
12:15 Lunch