

IJCAR 2016 Conference Program

Monday, June 27, 2016

09:15–09:30 Opening Remarks

09:30–10:30 Invited Talk: Sumit Gulwani. *Programming by Examples: Applications, Algorithms, and Ambiguity Resolution*

10:30–11:00 Break

11:00–12:00 Session Satisfiability of Boolean Formulas

11:00–11:30 Benjamin Kiesl, Martina Seidl, Hans Tompits and Armin Biere. *Super-Blocked Clauses*

11:30–12:00 Jasmin Christian Blanchette, Mathias Fleury and Christoph Weidenbach. *A Verified SAT Solver Framework with Learn, Forget, Restart, and Incrementality*

12:00–14:00 Lunch

14:00–15:40 Session First-Order Theorem Proving

14:00–14:30 Giles Regeer, Martin Suda, Andrei Voronkov and Krystof Hoder. *Selecting the Selection*

14:30–15:00 Stephan Schulz and Martin Mohrmann. *Performance of Clause Selection Heuristics for Saturation-Based Theorem Proving*

15:00–15:20 [SD] Gabriel Ebner, Stefan Hetzl, Giselle Reis, Martin Riener, Simon Wolfsteiner and Sebastian Zivota. *System Description: GAPT 2.0*

15:20–15:40 [SD] Jens Otten. *NanoCoP: A Non-clausal Connection Prover*

15:40–16:10 Break

16:10–17:30 Session Verification I

16:10–16:40 Taolue Chen, Xincan Gu and Zhilin Wu. *A complete decision procedure for linearly compositional separation logic with data constraints*

16:40–17:10 Florian Frohn, Matthias Naaf, Jera Hensel, Marc Brockschmidt and Juergen Giesl. *Lower Runtime Bounds for Integer Programs*

17:10–17:30 [SD] Francisco Duran, Steven Eker, Santiago Escobar, Narciso Marti-Oliet, Jose Meseguer and Carolyn Talcott. *Built-in Variant Generation and Unification, and their Applications in Maude 2.7*

17:30–17:45 Break

17:45–18:45 Awards (Herbrand Award and Best Paper Award)

19:00– Welcome reception

Tuesday, June 28, 2016

09:00–10:00 Invited Talk: Gilles Barthe. *Verification of differential private computations*

10:00–10:30 Joseph Boudou. *Optimal Decision Procedure for a Propositional Dynamic Logic with Parallel Composition*

10:30–11:00 Break

11:00–12:30 Session Non-classical Logics

11:00–11:30 Diana Costa and Manuel A. Martins. *A Tableau System for Quasi-Hybrid Logic*

11:30–12:00 Simon Docherty and David Pym. *Intuitionistic layered graph logic*

12:00–12:30 Laura Bozzelli, Alberto Molinari, Angelo Montanari, Adriano Peron and Pietro Sala. *Interval Temporal Logic Model Checking: the Border Between Good and Bad HS Fragments*

12:30–14:00 Lunch

14:00–15:40 Session Modal Logics

14:00–14:30 Jeremy Dawson, James Brotherston and Rajeev Gore. *Machine-checked Interpolation Theorems for Substructural Logics using Display Calculi*

14:30–15:00 Revantha Ramanayake. *Inducing syntactic cut-elimination for indexed nested sequents*

15:00–15:20 [SD] Yoni Zohar and Anna Zamansky. *Gen2sat: An Automated Tool for Deciding Derivability in Analytic Pure Sequent Calculi*

15:20–15:40 [SD] Claudia Nalon, Ullrich Hustadt and Clare Dixon. *KSP: A resolution-based prover for multimodal K*

15:40–16:10 Break

16:10–17:30 Session Proof Theory, Interpolation, and Rewriting

16:10–16:40 David Cerna and Alexander Leitsch. *Schematic Cut elimination and the Ordered Pigeonhole Principle*

16:40–17:10 Viorica Sofronie-Stokkermans. *On Interpolation and Symbol Elimination in Theory Extensions*

17:10–17:30 [SD] Takahito Aoto and Kentaro Kikuchi. *Nominal Confluence Tool*

Wednesday, June 29, 2016

09:00–10:00 Invited Talk: Arnon Avron. *A logical framework for developing and mechanizing set theories*

10:00–10:30 Takuya Matsuzaki, Hidenao Iwane, Munehiro Kobayashi, Yiyang Zhan, Ryoya Fukasaku, Jumma Kudo, Hirokazu Anai and Noriko Arai. *Race against the Teens – Benchmarking Mechanized Math on Pre-university Problems*

10:30–11:00 Break

11:00–12:30 Session Verification II

11:00–11:30 Francesco Alberti, Silvio Ghilardi and Elena Pagani. *Counting Constraints in Flat Array Fragments*

11:30–12:00 Benjamin Aminof and Sasha Rubin. *Model Checking Parameterised Multi-Token Systems via the Composition Method*

12:00–12:30 Konstantinos Athanasiou, Peizun Liu and Thomas Wahl. *Unbounded-Thread Program Verification using Thread-State Equations*

12:30–14:00 Lunch

14:00–15:45 Business Meetings

16:00– Social Program

Thursday, June 30, 2016

09:00–10:00 Invited Talk: Andre Platzer. *Logic and proofs for cyber-physical systems*

10:00–10:30 Ting Gan, Liyun Dai, Bican Xia, Naijun Zhan, Deepak Kapur and Mingshuai Chen. *Interpolation synthesis for quadratic polynomial inequalities and combination with EUF*

10:30–11:00 Break

11:00–12:30 Session Satisfiability-Module Theories

11:00–11:30 Leonardo de Moura and Daniel Selsam. *Congruence Closure in Intensional Type Theory*

11:30–12:00 Roberto Sebastiani. *Colors Make Theories Hard*

12:00–12:30 Andrew Reynolds, Jasmin Christian Blanchette, Simon Cruanes and Cesare Tinelli. *Model Finding for Recursive Functions in SMT*

12:30–14:00 Lunch

14:00–15:50 Session Satisfiability Modulo Theories

14:00–14:30 Martin Bromberger and Christoph Weidenbach. *Fast Cube Tests for LIA Constraint Solving*

14:30–15:00 Kshitij Bansal, Clark Barrett, Andrew Reynolds and Cesare Tinelli. *A new decision procedure for finite sets and cardinality in SMT*

15:00–15:20 [SD] Vu Xuan Tung, To Van Khanh and Mizuhito Ogawa. *raSAT : SMT Solver for Polynomial Constraints*

15:20–15:50 Hans De Nivelle. *Subsumption Algorithms for Three-Valued Geometric Resolution*

15:40–16:10 Break

16:10–17:20 Session Higher-order logic

16:10–16:40 Michael Farber and Chad Brown. *Internal guidance for Satallax*

16:40–17:00 [SD] Max Wisniewski, Alexander Steen, Kim Kern and Christoph Benzmueller. *Effective Normalization Techniques for HOL*

17:00–17:20 [SD] Lars Hupel and Viktor Kuncak. *Translating Scala Programs to Isabelle/HOL*