

FroCoS Programme

27th-29th September 2017

Wednesday 27th September

8.30-9.30 **Joint FroCoS/ITP/Tableaux Invited Talk**

Chair:

The Perimeter of Decidability (with Sequent Calculi on the Inside)

Katalin Bimbó

9.30-10.30 **Technical Session: Properties and Combinations of Logic I**

Chair: Didier Galmiche

First-Order Interpolation of Non-Classical Logics Derived from Propositional Interpolation

Matthias Baaz and Anela Lolic

Interpolation, Amalgamation and Combination (the non-disjoint signatures case)

Silvio Ghilardi and Alessandro Gianola

10.30-11.00 **Coffee**

11.00-12.30 **Technical Session: Description and Temporal Logics**

Chair: Silvio Ghilardi

Metric Temporal Description Logics with Interval-Rigid Names

Franz Baader, Stefan Borgwardt, Patrick Koopmann, Ana Ozaki and Veronika Thost

Pushing the Boundaries of Reasoning about Qualified Cardinality Restrictions

Jelena Vlasenko, Volker Haarslev and Brigitte Jaumard

Using Ontologies to Query Probabilistic Numerical Data

Franz Baader, Patrick Koopmann and Anni-Yasmin Turhan

12.30-14.00 **Lunch**

14.00-15.00 **Joint FroCoS/ITP/Tableaux Invited Talk**

Chair:

Automating Formalization by Statistical and Semantic Parsing of Mathematics

Cezary Kaliszyk

15.00-15.30 **Technical Session: Description and Temporal Logics (Cont.)**

Chair: Silvio Ghilardi

A New Description Logic with Set Constraints and Cardinality Constraints on Role Successors

Franz Baader

15.30-18.00 **Coffee and Excursion**

18.00-22.30 **Dinner**

Thursday 28th September

8.30-9.30 **FroCoS Invited Talk**

Chair: Clare Dixon

Revising System Specifications in Temporal Logic

Renata Wassermann

9.30-10.30 **Poster Talks**

10.30-11.00 **Coffee**

11.00-12.30 **Poster Display**

12.30-14.00 **Lunch**

14.00-15.00 **Joint FroCoS/ITP/Tableaux Invited Talk**

Chair: Marcelo Finger

Foundational (Co)datatypes and (Co)recursion for Higher-Order Logic

Jasmin Blanchette

15.00-15.30 **Technical Session: Properties and Combinations of Logic II**

Chair: Franz Baader

Finitariness of elementary unification in Boolean Region Connection Calculus

Philippe Balbiani and Cigdem Gencer

15.30-16.00 **Coffee**

16.00-17.00 **Technical Session: Properties and Combinations of Logic II (Cont.)**

Chair: Franz Baader

Merging fragments of classical logic

Carlos Caleiro, Sergio Marcelino and Joao Marcos

The Boolean Solution Problem from the Perspective of Predicate Logic

Christoph Wernhard

17.00-18.00 **Business Meeting**

Friday 29th September

8.30-9.30 **ITP Invited Talk**

Chair:

Automated Theory Exploration for Interactive Theorem Proving: An introduction to the Hipster system

Moa Johansson

(Sponsored by the European Association for Artificial Intelligence - EurAI)

9.30-10.30 **Technical Session: Rewriting**

Chair: Daniele Nantes

Parallel Closure Theorem for Left-Linear Nominal Rewriting Systems

Kentaro Kikuchi, Takahito Aoto and Yoshihito Toyama

Complexity Analysis for Term Rewriting by Integer Transition Systems

Matthias Naaf, Florian Frohn, Marc Brockschmidt, Carsten Fuhs and Jurgen Giesl

10.30-11.00 **Coffee**

11.00-12.30 **Technical Session: Decision procedures, decidability and verification**

Chair: Pascal Fontaine

On solving nominal fixpoint equations

Mauricio Ayala-Rincon, Washington de Carvalho Segundo, Maribel Fernandez and Daniele Nantes-Sobrinho

Decidable Verification of Decision- Theoretic Golog

Jens Claßen and Benjamin Zarriß

The Bernays-Schönfinkel-Ramsey Fragment with Bounded Difference Constraints over the Reals is Decidable

Marco Voigt

12.30-14.00 **Lunch**

14.00-15.00 **FroCoS Invited Talk**

Chair: Roberto Sebastiani

Designing Extensible Theory Solvers

Cesare Tinelli

15.00-15.30 **Technical Session: SAT, SMT and Automated Theorem Proving**

Chair: Peter Baumgartner

Solving SAT and MaxSAT with a Quantum Annealer: Foundations and a Preliminary Report

Zhengbing Bian, Fabian Chudak, William Macready, Aidan Roy, Roberto Sebastiani and Stefano Varotti

15.30-16.00 **Coffee**

16.00-17.00 **Technical Session: SAT, SMT and Automated Theorem Proving (Cont.)**

Chair: Peter Baumgartner

Superposition with Integrated Induction

Simon Cruanes

Subtropical Satisfiability

Pascal Fontaine, Mizuhito Ogawa, Thomas Sturm and Xuan Tung Vu

17.00-17.30 **Closing**