

MEMICS

Twelfth Doctoral Workshop on

Mathematical and Engineering Methods in Computer Science

Telč, Czech Republic, October 13-15, 2017

Workshop Programme

Friday, October 13th

- 11:00 – 12:30** *Registration*
- 12:30 – 13:30** *Lunch*
- 13:45 – 14:00** *Opening*
- 14:00 - 15:30** **Session I** (*Room P1*)
- 14:00 - 14:30** **Tomáš Fiedor, Lukáš Holík, Petr Janků, Ondřej Lengál and Tomáš Vojnar**
Lazy Automata Techniques for WS1S
- 14:30 - 15:00** **Lucie Charvat and Alexander Meduna**
A Reduction of Finitely Expandable Deep Pushdown Automata
- 15:00 – 15:30** **Michal Zima**
Coincer: Decentralised Trustless Platform for Exchanging Cryptocurrencies
- 15:30 – 16:00** *Coffee Break*
- 16:00 - 18:00** **Session II** (*Room P2*)
- 16:00 - 16:30** **Martin Hruška, Lukáš Holík, Tomáš Vojnar, Ondřej Lengál and Adam Rogalewicz**
Counterexample Validation and Interpolation-Based Refinement for Forest Automata
- 16:30 - 17:00** **M. Mohanned Kazzaz and Marek Rychlý**
Restful-based Mobile Web Service Migration Framework
- 17:00 - 17:30** **Vladimír Štill, Petr Ročkai and Jiří Barnat**
Using Off-the-Shelf Exception Support Components in C++ Verification
- 17:30 - 18:00** **Martin Jonáš and Jan Strejček**
On Simplification of Formulas with Unconstrained Variables and Quantifiers
- 19:00 - ...** *Dinner (University Centre, Room P1)*

Saturday, October 14th

09:00 - 10:00 **Session III** (Room P2)

09:00 - 09:30 **Onur Cagirici, Petr Hliněný and Bodhayan Roy**
On Colourability of Polygon Visibility Graphs

09:30 - 10:00 **Petr Hliněný, Filip Pokrývka and Bodhayan Roy**
FO model checking of geometric graphs

10:00 - 10:30 *Coffee Break*

10:30 - 12:30 **Plenary Talk I** (Room P1)

Invited Speaker: Georg Weissenbacher (TU Vienna)
Interpolation-based Model Checking and IC3

12:30 - 13:30 *Lunch*

14:00 - 16:00 **Plenary Talk II** (Room P1)

Invited Speaker: Alessandro Abate (University of Oxford)
Formal verification of complex systems: model-based and data-driven methods

16:00 - 16:30 *Coffee Break*

16:30 - 17:00 **Posters Lightning Talks** (Room P2)

17:00 - 18:00 **Poster Session**

19:00 - ... *Conference Dinner (Hotel U Hraběňky)*



Sunday, October 15th

09:30 – 10:30 **Session IV** (*Room P1*)

09:30 - 10:00 **Nikola Beneš, Lubos Brim, Martin Demko, Samuel Pastva and David Šafránek**
A Model Checking Approach to Discrete Bifurcation Analysis

10:00 - 10:30 **Milan Češka, Jiří Matyáš, Tomáš Vojnar, Vojtěch Mrázek, Lukáš Sekanina, Zdeněk Vašíček**
Approximating Complex Arithmetic Circuits with Formal Error Guarantees

10:30 - 11:00 *Coffee Break*

11:00 - 12:00 **Plenary Talk III** (*Room P1*)

Invited Speaker: Loïc Paulevé (Université Paris-Sud)
Formal methods for capturing dynamics of biological networks

12:00 - 13:00 *Lunch*