

# CIAA 2019

## 24<sup>th</sup> INTERNATIONAL CONFERENCE ON IMPLEMENTATION AND APPLICATION OF AUTOMATA

JULY 22–25, 2019, KOŠICE, SLOVAKIA

### Program of the conference

Monday, July 22, 2019	
8:30 – 9:25	Registration
9:25 – 9:30	Opening
9:30 – 10:30	Session chair: Viliam Geffert CHRISTOS A. KAPOUTSIS (INVITED TALK) Alternation in two-way finite automata
10:30 – 11:00	Coffee break
11:00 – 11:30	Session chair: Andreas Malcher FRANTIŠEK MRÁZ, DANIEL PRŮŠA, AND MICHAEL WEHAR Two-dimensional pattern matching against basic picture languages
11:30 – 12:00	TAYLOR J. SMITH AND KAI SALOMAA Decision problems for restricted variants of two-dimensional automata
12:00 – 14:00	Lunch in Hotel TeleDom
14:00 – 15:00	Session chair: Christos A. Kapoutsis ALEXANDER OKHOTIN (INVITED TALK) Graph-walking automata: From whence they come and whither they are bound
15:00 – 15:30	Coffee break
15:30 – 16:00	Session chair: György Vaszil YO-SUB HAN, HWEE KIM, YUSEI MASUDA, AND SHINNOSUKE SEKI A general architecture of oritatami systems for simulating arbitrary finite automata
16:00 – 16:30	MARTIN KUTRIB, ANDREAS MALCHER, AND MATTHIAS WENDLANDT Input-driven multi-counter automata
16:30 – 17:00	SIMON BEIER AND MARKUS HOLZER Semi-linear lattices and right one-way jumping finite automata
18:00 – 20:00	Welcome reception in Historical Town Hall

## Tuesday, July 23, 2019

9:30 – 10:30	Session chair: Martin Kutrib HELMUT SEIDL (INVITED TALK) Deciding equivalence of tree transducers by means of precise abstract interpretation
10:30 – 11:00	Coffee break
11:00 – 11:30	Session chair: Shinnosuke Seki ZOLTÁN FÜLÖP AND ANDREAS MALETTI Composition closure of linear weighted extended top-down tree transducers
11:30 – 12:00	YUTA TAKAHASHI, KAZUYUKI ASADA, AND KEISUKE NAKANO Streaming ranked-tree-to-string transducers
12:00 – 14:00	Lunch
14:00 – 14:30	Session chair: Andreas Maletti AKIO FUJIYOSHI AND DANIEL PRŮŠA A simple extension to finite tree automata for defining sets of labeled, connected graphs
14:30 – 15:00	JOHANNA BJÖRKLUND, FRANK DREWES, AND GIORGIO SATTA Z-automata for compact and direct representation of unranked tree languages
15:00 – 15:30	Coffee break
15:30 – 16:00	Session chair: Markus Holzer STAVROS KONSTANTINIDIS, NELMA MOREIRA, JOÃO PIRES, AND ROGÉRIO REIS Partial derivatives of regular expressions over alphabet-invariant and user-defined labels
16:00 – 16:30	ROBERT BAKARIĆ, DAMIR KORENČIĆ, AND STRAHIL RISTOV Enumerated automata implementation of string dictionaries
17:00 – 18:30	Guided tour in the city center

## Wednesday, July 24, 2019

9:30 – 10:30	Session chair: Juraj Šebej MARIÁN DVORSKÝ (INVITED TALK) Large scale sorting in distributed data processing systems
10:30 – 11:00	Coffee break
11:00 – 11:30	Tool session Session chair: Rogério Reis ANGELO BORSOTTI, LUCA BREVEGLIERI, STEFANO CRESPI REGHIZZI, AND ANGELO MORZENTII A benchmark production tool for regular expressions
12:00 – 14:00	Lunch break
14:00 – 22:00	Conference trip to the Tokaj region including <ul style="list-style-type: none"><li>• visit to the Observation tower in vineyards</li><li>• degustation of wines and conference dinner at Macik Winery</li></ul>



Source of images: Slovakia.travel

## Thursday, July 25, 2019

9:30 – 10:30	Session chair: Hsu-Chun Yen SEBASTIAN MANETH (INVITED TALK) Static garbage collection
10:30 – 11:00	Coffee break
11:00 – 11:30	Session chair: Stavros Konstantinidis GILAD BARUCH, SHMUEL TOMI KLEIN, AND DANA SHAPIRA New approaches for context sensitive flash codes
11:30 – 12:00	SHUHEI DENZUMI New algorithms for manipulating sequence binary decision diagrams
12:00 – 12:30	Business meeting including the presentation of CIAA 2020 in Loughborough, UK
12:30 – 14:00	Lunch break
14:00 – 14:30	Session chair: Galina Jirásková A BASKAR, R RAMANUJAM, AND S P SURESH Dolev-Yao theory with associative blindpair operators
14:30 – 15:00	MICHAL HOSPODÁR Descriptive complexity of power and positive closure on convex languages
15:00 – 15:30	STAVROS KONSTANTINIDIS, MITJA MASTNAK, JURAJ ŠEBEJ Partitioning a symmetric rational relation into two asymmetric rational relations
15:30	Closing of CIAA 2019