

Thursday August 12 2010

8:00-9:00 Registration E2-105 EITC
(ALL TECHNICAL SESSIONS IN E2-105 EITC)

Session 1 (Chair: Kai Salomaa)

9:00 Madhusudan Parthasarathy
Deciding emptiness of automata with auxiliary storage

10:00-10:30 Coffee Break

Session 2 (Chair: Giovanni Pighizinni)

10:30 Daniel Reidenbach and Markus Schmid.
A Polynomial Time Match Test for Large Classes of Extended Regular Expressions

11:00 Bo Cui, Yuan Gao, Lila Kari and Sheng Yu.
State complexity of catenation combined with union and intersection

11:30 Jan Antoš and Bořivoj Melichar.
Finite Automata for Generalized Approach to Backward Pattern Matching

12:00-1:30 Lunch – McLuhan Hall, Room 204, University Centre

Session 3 (Chair: TBA)

1:30 Zoltán Ésik and Andreas Maletti.
Simulations of Weighted Tree Automata

2:00 Cyril Allauzen, Michael Riley and Johan Schalkwyk.
Filters for Efficient Composition of Weighted Finite-State Transducers

2:30 Norbert Hundeshagen, Friedrich Otto and Marcel Vollweiler.
Transductions computed by PC-systems of monotone deterministic restarting automata

3:00-3:30 Coffee break

Session 4 (Chair: Zoltan Ésik)

3:30 Krzysztof Chmiel and Adam Roman.
COMPAS – a computing package for

synchronization
3:50 Daniel Neider.
Reachability Games on Automatic Graphs
4:10 Liu Yanbing, Guo Li, Liu Ping and Tan Jianlong.
Compressing Regular Expressions' DFA Table by Matrix Decomposition

4:30 Howard Johnson.
Uniformizing Rational Relations for Natural Language Applications using Weighted Determinization

5:30 Reception – McLuhan Hall, Room 204, University Centre

Friday August 13 2010

Session 5 (Chair: Mike Domaratzki)

9:00 Karen Rudie
A Summary of Some Discrete-Event System Control Problems

10:00-10:30 Coffee Break

Session 6 (Chair: Alexander Okhotin)

10:30 Andreas Maletti.
Better Hyper-Minimization --- Not as Fast, but Fewer Errors

11:00 Marinella Sciortino, Giusi Castiglione and Cyril Nicaud.
A challenging family of automata for classical minimization algorithms

11:30 Marco Almeida, Nelma Moreira and Rogério Reis.
Incremental DFA minimization

12:00-1:30 Lunch – McLuhan Hall, Room 204, University Centre

Session 7 (Chair: Rogério Reis)

1:30 Manfred Kufleitner and Alexander Lauser.
Partially Ordered Two-way Buchi Automata

2:00 Ming-Hsien Tsai, Seth Fogarty, Moshe Vardi and

Yih-Kuen Tsay.
State of Buchi Complementations
2:30 Brent Heeringa and Michael Gerbush.
Approximating Minimum Reset Sequences

3:00-3:30 Coffee break

Session 8 (Chair: TBA)

3:30 Fang Yu, Tevfik Bultan and Oscar Ibarra.
Relational String Verification Using Multi-track Automata

4:00 Cristina Tîrnăucă and Cătălin Ionuț Tîrnăucă.
Types of Trusted Information That Make DFA Identification Feasible

4:30 Cyril Allauzen, Corinna Cortes and Mehryar Mohri.
Large-Scale Training of SVMs with Automata Kernels

Saturday August 14 2010

Session 9 (Chair: Ian McQuillan)

9:00 Volker Diekert and Steffen Kopecki.
Complexity Results and the Growths of Hairpin Completions of Regular Languages

9:30 Martin Kutrib and Andreas Malcher.
Two-Party Watson-Crick Computations

10:00-10:30 Coffee Break

Session 10 (Chair: Jeffrey Shallit)

10:30 José Bacelar Almeida, Nelma Moreira, David Pereira and Simão Melo de Sousa.
Partial Derivative Automata Formalized in Coq

11:00 Attila Egri-Nagy and Christopher L. Nehaniv.
On Straight Words and Minimal Permutators in Finite Transformation Semigroups

11:30 Radu Grosu.
The Cayley-Hamilton Theorem for Noncommutative Semirings

12:00-1:30 Lunch -- McLuhan Hall, Room 204, University Centre

2:30 Excursion and Dinner
Excursion departs EITC 2:30 PM
Forks National Historic Site and Forks Market
Dinner at Canwest Park

Sunday August 15 2010

Session 11 (Chair: Sheng Yu)

9:00 Natasha Jonoska
Using Automata to Describe Self-assembled Nanostructures

10:00-10:30 Coffee Break

Session 12 (Chair: Nelma Moreira)

10:30 Jean-Marc Champarnaud, Jean-Philippe Dubernard and Hadrien Jeanne.
Regular Geometrical Languages and Tiling the Plane
11:00 Chiara Epifanio, Christiane Frougny, Alessandra Gabriele, Filippo Mignosi and Jeffrey Shallit.
On lazy representations and Sturmian graphs.
11:30 Jan Zdarek and Bořivoj Melichar.
A Note on a Tree-based 2D Indexing

12:00-1:30 Lunch – McLuhan Hall, Room 204, University Centre

Session 13 (Chair: Narad Rampersad)

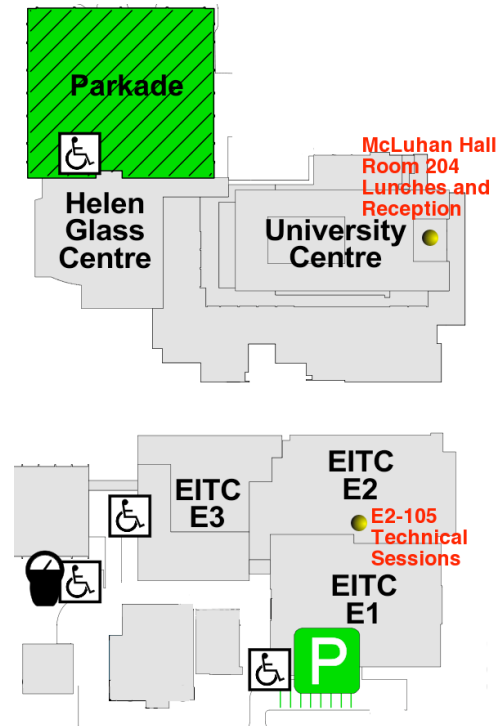
1:30 Manfred Droste and Ingmar Meinecke
Regular Expressions on Average and in The Long Run
2:00 Satoshi Okui and Taro Suzuki.
Disambiguation in Regular Expression Matching via Position Automata with Augmented Transitions
2:30 Vincent le Maout.
Regular Expressions at their Best: A Case for Rational Design

3:00-3:30 Coffee break

Session 14 (Chair: Masami Ito)

3:30 Alessandro Cimatti, Sergio Mover, Marco Roveri and Stefano Tonetta.
From Sequential Extended Regular Expressions to NFA with Symbolic Labels
3:50 Wit Forys, Piotr Oprocha and Slawomir Bakalarski.
Symbolic Dynamics, Flower Automata and Infinite Traces

4:20 CIAA Business Meeting – E2-105 EITC



15th International Conference on Implementation and Application of Automata

CIAA 2010

August 12-15, 2010 Winnipeg, Manitoba Canada



UNIVERSITY
OF MANITOBA

Sponsors

Fields Institute
MITACS
University of Manitoba, Dept of Computer Science
University of Manitoba, Vice-President Academic