



4th International Conference on Language
and Automata Theory and Applications

LATA 2010, May 24 - 28, 2010

Trier, Germany

Programme



Monday, May 24	
9:00 – 9:25	Registration
9:25 – 9:40	Opening
9:40 – 10:40 T. Zeugmann	JANUSZ BRZozowski: <i>Complexity in Convex Languages</i> – Invited Talk –
10:40 – 11:10	Coffee Break
11:10 – 12:25 A. N. Arslan	JÉRÉMIE CABESSA AND ALESSANDRO VILLA: <i>A Hierarchical Classification of First-Order Recurrent Neural Networks</i> FERNANDO ROSA-VELARDO AND GIORGIO DELZANNO: <i>Language-Based Comparison of Petri Nets with Black Tokens, Pure Names and Ordered Data</i> STEFANO CRESPI REGHIZZI AND DINO MANDRIOLI: <i>Operator Precedence and the Visibly Pushdown Property</i>
12:25 – 13:45	Lunch
13:45 – 15:00 S. Rahmann	TURLOUGH NEARY: <i>A Boundary Between Universality and Non-universality in Extended Spiking Neural P Systems</i> ABDULLAH N. ARSLAN: <i>A Fast Longest Common Subsequence Algorithm for Similar Strings</i> PABLO ARRIGHI AND JONATHAN GRATTAGE: <i>A Simple n-Dimensional Intrinsically Universal Quantum Cellular Automaton</i>
15:00 – 15:20	Coffee Break
15:20 – 17:25 M. Plátek	PETER LEUPOLD: <i>Primitive Words are Unavoidable for Context-Free Languages</i> FRANCINE BLANCHET-SADRI, ROBERT MERÇAŞ, SEAN SIMMONS, AND ERIC WEISSENSTEIN: <i>Avoidable Binary Patterns in Partial Words</i> FRANCINE BLANCHET-SADRI, JANE KIM, ROBERT MERÇAŞ, WILLIAM SEVERA, AND SEAN SIMMONS: <i>Abelian Square-Free Partial Words</i> FLORIN MANEA AND CĂTĂLIN TISEANU: <i>Hard Counting Problems for Partial Words</i> MAXIME CROCHEMORE, COSTAS ILIOPOULOS, MARCIN KUBICA, JAKUB RADOSZEWSKI, WOJCIECH RYTTER, AND TOMASZ WALEŃ: <i>On the Maximal Number of Cubic Runs in a String</i>
19:00	Welcome Meeting



Trier Panorama

Tuesday, May 25	
8:50 – 9:50 F. Stephan	ALEXANDER CLARK: <i>Three Learnable Models for the Description of Language</i> – Invited Talk –
9:50 – 10:20	Coffee Break
10:20 – 12:25 B. Nagy	SANJAY JAIN, QINGLONG LUO, AND FRANK STEPHAN: <i>Learnability of Automatic Classes</i> CHRISTOPHE COSTA FLORÊNCIO AND HENNING FERNAU: <i>Finding Consistent Categorical Grammars of Bounded Value: a Parameterized Approach</i> ANNA KASPRZIK AND TIMO KÖTZING: <i>String Extension Learning using Lattices</i> RAFAEL CARRASCOSA, FRANÇOIS COSTE, MATTHIAS GALLÉ, AND GABRIEL INFANTE-LOPEZ: <i>Choosing Word Occurrences for the Smallest Grammar Problem</i> TOBIAS MARSCHALL AND SVEN RAHMANN: <i>Exact Analysis of Horspool's and Sunday's Pattern Matching Algorithms with Probabilistic Arithmetic Automata</i>
12:25 – 13:45	Lunch
13:45 – 15:00 T. Neary	NEDA SAEEDLOEI AND GOPAL GUPTA: <i>Verifying Complex Continuous Real-Time Systems with Coinductive CLP(R)</i> CHARLES JORDAN AND THOMAS ZEUGMANN: <i>Untestable Properties Expressible with Four First-Order Quantifiers</i> CHRISTIAN CHOFFRUT, ANDREAS MALCHER, CARLO MEREGHETTI, AND BEATRICE PALANO: <i>On the Expressive Power of FO[+]</i>
15:00 – 15:20	Coffee Break
15:20 – 17:25 F. Manea	HANS ZANTEMA: <i>Complexity of Guided Insertion-Deletion in RNA-Editing</i> NIMROD MILO, TAMAR PINHAS, AND MICHAL ZIV-UKELSON: <i>SAREPC - Sequence Alignment with Regular Expression Path Constraint</i> MUTHIAH SAKTHI BALAN AND PARAMESWARAN SESHAN: <i>Incremental Building in Peptide Computing to Solve Hamiltonian Path Problem</i> ALBERTO POLICRITI, ALEXANDRU I. TOMESCU, AND FRANCESCO VEZZI: <i>A Randomized Numerical Aligner (rNA)</i> FRANK WEINBERG AND MARKUS NEBEL: <i>Extending Stochastic Context-Free Grammars for an Application in Bioinformatics</i>



Porta Nigra

Wednesday, May 26	
8:30 – 9:30 <i>W. Rytter</i>	BOŘIVOJ MELICHAR: <i>Arbology: Trees and Pushdown Automata</i> – Invited Talk –
9:30 – 10:00	Coffee Break
10:00 – 12:05 <i>K. Reinhardt</i>	NICOLAS BOUSQUET AND CHRISTOF LÖDING: <i>Equivalence and Inclusion Problem for Strongly Unambiguous Büchi Automata</i>
	HELLIS TAMM: <i>Some Minimality Results on Biresidual and Biseparable Automata</i>
	MARTIN KUTRIB AND ANDREAS MALCHER: <i>Reversible Pushdown Automata</i>
	BARBARA KLUNDER AND WOJCIECH RYTTER: <i>Post Correspondence Problem with Partially Commutative Alphabets</i>
	BARBARA DI GIAMPAOLO, SALVATORE LA TORRE, AND MARGHERITA NAPOLI: <i>Parametric Metric Interval Temporal Logic</i>
12:05	Lunch, Excursion . . .



Trier Cathedral

Thursday, May 27	
8:50 – 9:50 <i>F. Otto</i>	ANCA MUSCHOLL: <i>Analysis of Communicating Automata</i> – Invited Talk –
9:50 – 10:20	Coffee Break
10:20 – 12:25 <i>P. Leupold</i>	MAKOTO KANAZAWA AND SYLVAIN SALVATI: <i>The Copying Power of Well-Nested Multiple Context-Free Grammars</i> RYO YOSHINAKA, YUICHI KAJI, AND HIROYUKI SEKI: <i>Chomsky-Schützenberger-Type Characterization of Multiple Context-Free Languages</i> DAG HOVLAND: <i>The Inclusion Problem for Regular Expressions</i> HERMANN GRUBER AND STEFAN GULAN: <i>Simplifying Regular Expressions. A Quantitative Perspective</i> REINHARD HEMMERLING, KATARÍNA SMOLEŇOVÁ, AND WINFRIED KURTH: <i>A Programming Language Tailored to the Specification and Solution of Differential Equations Describing Processes on Networks</i>
12:25 – 13:45	Lunch
13:45 – 15:00 <i>H. Zantema</i>	JEAN-MARC CHAMPARNAUD, JEAN-PHILIPPE DUBERNARD, AND HADRIEN JEANNE: <i>Geometricity of Binary Regular Languages</i> ALEXANDER LETICHEVSKY, ARSEN SHOUKOURIAN, AND SAMVEL SHOUKOURIAN: <i>The Equivalence Problem of Deterministic Multitape Finite Automata. A New Proof of Solvability Using a Multidimensional Tape</i> RÜDIGER EHLERS: <i>Short Witnesses and Accepting Lassos in ω-Automata</i>
15:00 – 15:20	Coffee Break
15:20 – 16:35 <i>M. Kutrib</i>	BENEDEK NAGY AND FRIEDRICH OTTO: <i>CD-Systems of Stateless Deterministic $R(1)$-Automata Accept All Rational Trace Languages</i> MARTIN PLÁTEK, FRANTIŠEK MRÁZ, AND MARKÉTA LOPATKOVÁ: <i>Restarting Automata with Structured Output and Functional Generative Description</i> ORNA GRUMBERG, ORNA KUPFERMAN, AND SARAI SHEINVALD: <i>Variable Automata over Infinite Alphabets</i>
16:35 – 16:45	Break
16:45 – 17:30	Open problems session: Future directions and challenges



Imperial Thermae

Friday, May 28	
8:30 – 9:45 <i>F. Blanchet-Sadri</i>	TRAVIS GAGIE AND PAWEŁ GAWRYCHOWSKI: <i>Grammar-Based Compression in a Streaming Model</i>
	ZHE LIN: <i>Modal Nonassociative Lambek Calculus with Assumptions: Complexity and Context-Freeness</i>
	WOJCIECH BUSZKOWSKI AND ZHE LIN: <i>Pregroup Grammars with Letter Promotions</i>
9:45 – 10:00	LATA 2011 Presentation
10:00 – 10:25	Coffee Break
10:25 – 12:05 <i>W. Buszkowski</i>	WILLIAM CRUZ-SANTOS AND GUILLERMO MORALES-LUNA: <i>On the Hamiltonian Operators for Adiabatic Quantum Reduction of SAT</i>
	CLAUDIA CASADIO: <i>Agreement and Cliticization in Italian: a Pregroup Analysis</i>
	VINCENT ARAVANTINOS, RICARDO CAFERRA, AND NICOLAS PELTIER: <i>Complexity of the Satisfiability Problem for a Class of Propositional Schemata</i>
	RAFAEL PEÑALOZA: <i>Using Sums-of-Products for Non-standard Reasoning</i>
12:05	Closing

We acknowledge the support by:



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