

**7th INTERNATIONAL CONFERENCE ON LANGUAGE AND AUTOMATA
THEORY AND APPLICATIONS**

LATA 2013

Bilbao, Spain

April 2-5, 2013

Organized by:
Research Group on Mathematical Linguistics (GRLMC)
Rovira i Virgili University

<http://grammars.grlmc.com/LATA2013/>

AIMS:

LATA is a yearly conference in theoretical computer science and its applications. Following the tradition of the International Schools in Formal Languages and Applications developed at Rovira i Virgili University in Tarragona since 2002, LATA 2013 will reserve significant room for young scholars at the beginning of their career. It will aim at attracting contributions from both classical theory fields and application areas (bioinformatics, systems biology, language technology, artificial intelligence, etc.).

VENUE:

LATA 2013 will take place in Bilbao, at the Basque Country in Northern Spain. The venue will be the Basque Center for Applied Mathematics (BCAM).

SCOPE:

Topics of either theoretical or applied interest include, but are not limited to:

- algebraic language theory
- algorithms for semi - structured data mining
- algorithms on automata and words
- automata and logic
- automata for system analysis and programme verification
- automata, concurrency and Petri nets
- automatic structures
- cellular automata
- combinatorics on words
- computability
- computational complexity
- computational linguistics
- data and image compression
- decidability questions on words and languages
- descriptive complexity
- DNA and other models of bio - inspired computing
- document engineering

- foundations of finite state technology
- foundations of XML
- fuzzy and rough languages
- grammars (Chomsky hierarchy, contextual, multidimensional, unification, categorial, etc.)
- grammars and automata architectures
- grammatical inference and algorithmic learning
- graphs and graph transformation
- language varieties and semigroups
- language - based cryptography
- language - theoretic foundations of artificial intelligence and artificial life
- parallel and regulated rewriting
- parsing
- pattern recognition
- patterns and codes
- power series
- quantum, chemical and optical computing
- semantics
- string and combinatorial issues in computational biology and bioinformatics
- string processing algorithms
- symbolic dynamics
- symbolic neural networks
- term rewriting
- transducers
- trees, tree languages and tree automata
- weighted automata

STRUCTURE:

LATA 2013 will consist of:

- invited talks
- invited tutorials
- peer - reviewed contributions

INVITED SPEAKERS:

Jin-Yi Cai (Madison), Complexity Dichotomy for Counting Problems

Kousha Etessami (Edinburgh), Algorithms for Analyzing and Verifying Infinite-state Recursive Probabilistic Systems

Luke Ong (Oxford), tutorial Recursion Schemes, Collapsible Pushdown Automata and Higher-order Model Checking

Joël Ouaknine (Oxford), tutorial Discrete Linear Dynamical Systems

Thomas Schwentick (Dortmund), XML Schema Management: a Challenge for Automata Theory

Andrei Voronkov (Manchester), The Lazy Reviewer Assignment Problem in EasyChair

PROGRAMME COMMITTEE:

Parosh Aziz Abdulla (Uppsala)

Franz Baader (Dresden)

Jos Baeten (CWI, Amsterdam)
Christel Baier (Dresden)
Gerth Stølting Brodal (Aarhus)
John Case (Delaware)
Marek Chrobak (Riverside)
Mariangiola Dezani (Torino)
Rod Downey (Wellington)
Ding-Zhu Du (Dallas)
E. Allen Emerson (Austin)
Javier Esparza (Technical University Munich)
Michael R. Fellows (Darwin)
Alain Finkel (ENS Cachan)
Dov M. Gabbay (King's, London)
Jürgen Giesl (Aachen)
Rob van Glabbeek (NICTA, Sydney)
Georg Gottlob (Oxford)
Annegret Habel (Oldenburg)
Reiko Heckel (Leicester)
Sanjay Jain (Singapore)
Charanjit S. Jutla (IBM Thomas J. Watson)
Ming-Yang Kao (Northwestern)
Deepak Kapur (Albuquerque)
Joost-Pieter Katoen (Aachen)
S. Rao Kosaraju (Johns Hopkins)
Evangelos Kranakis (Carleton)
Hans-Jörg Kreowski (Bremen)
Tak-Wah Lam (Hong Kong)
Gad M. Landau (Haifa)
Kim G. Larsen (Aalborg)
Richard Lipton (Georgia Tech)
Jack Lutz (Iowa State)
Ian Mackie (École Polytechnique, Palaiseau)
Rupak Majumdar (Max Planck, Kaiserslautern)
Carlos Martín-Vide (Tarragona, chair)
Paliath Narendran (Albany)
Tobias Nipkow (Technical University Munich)
David A. Plaisted (Chapel Hill)
Jean-François Raskin (Brussels)
Wolfgang Reisig (Humboldt Berlin)
Michaël Rusinowitch (LORIA, Nancy)
Davide Sangiorgi (Bologna)
Bernhard Steffen (Dortmund)
Colin Stirling (Edinburgh)
Alfonso Valencia (CNIO, Madrid)
Helmut Veith (Vienna Tech)
Heribert Vollmer (Hannover)
Osamu Watanabe (Tokyo Tech)
Pierre Wolper (Liège)
Louxin Zhang (Singapore)

ORGANIZING COMMITTEE:

Adrian Horia Dediu (Tarragona)
Peter Leupold (Tarragona)

Carlos Martín - Vide (Tarragona, co-chair)
Magaly Roldán (Bilbao)
Bianca Truthe (Magdeburg)
Florentina Lilica Voicu (Tarragona)
Enrique Zuazua (Bilbao, co-chair)

SUBMISSIONS:

Authors are invited to submit papers presenting original and unpublished research. Papers should not exceed 12 single - spaced pages (including eventual appendices) and should be formatted according to the standard format for Springer Verlag's LNCS series (see <http://www.springer.com/computer/lncs?SGWID=0-164-6-793341-0>).

Submissions have to be uploaded to:

<https://www.easychair.org/conferences/?conf=lata2013>

PUBLICATIONS:

A volume of proceedings published by Springer in the LNCS series will be available by the time of the conference.

A special issue of a major journal will be later published containing peer - reviewed extended versions of some of the papers contributed to the conference. Submissions to it will be by invitation.

REGISTRATION:

The period for registration is open from August 6, 2012 to April 2, 2013. The registration form can be found at the website of the conference:

<http://grammars.grlmc.com/LATA2013/>

DEADLINES:

Paper submission: November 15, 2012 (23:59h, CET) – EXTENDED -
Notification of paper acceptance or rejection: December 16, 2012
Final version of the paper for the LNCS proceedings: December 25, 2012
Early registration: January 2, 2013
Late registration: March 23, 2013
Starting of the conference: April 2, 2013
End of the conference: April 5, 2013
Submission to the post - conference journal special issue: July 5, 2013

QUESTIONS AND FURTHER INFORMATION:

florentinalilica.voicu@urv.cat

POSTAL ADDRESS:

LATA 2013
Research Group on Mathematical Linguistics (GRLMC)
Rovira i Virgili University

Av. Catalunya, 35
43002 Tarragona, Spain

Phone: +34 - 977 - 559543

Fax: +34 - 977 - 558386

ACKNOWLEDGEMENTS:

Basque Center for Applied Mathematics
Diputació de Tarragona
Universitat Rovira i Virgili