The Research Group in Mathematical Linguistics - GRLMC

Until recently, the Research Group in Mathematical Linguistics (GRLMC) resided in the building of the Faculties of Letters and Chemistry at Plaça Imperial Tàrraco.

Now the GRLMC has moved to additional offices in the complex of the former Universitat Laboral. To get there, one should take the bus line four (timetable in PDF). The building is shown on the picture to the right.
Events organized by the GRLMC

2000

- Evolution, Grammars and DNA (IX Tarragona Seminar on Formal Syntax and Semantics)
- Representing Information Using Concatenated Strings and Using Biological Macromolecules (X Tarragona Seminar on Formal Syntax and Semantics)
- Array Grammars (XI Tarragona Seminar on Formal Syntax and Semantics) 2001 From Finite to Unconventional in the Theory of Automata and Computation (XII Tarragona Seminar on Formal Syntax and Semantics)
- Complexities: Computational and Descripational (XIII Tarragona Seminar on Formal Syntax and Semantics)

2002

- Bounded Life Resources and Emergence in the Theories of Formal Languages and Systems (XIV Tarragona Seminar on Formal Syntax and Semantics)
- Grammatical Inference: Theory, Algorithms and Applications (XV Tarragona Seminar on Formal Syntax and Semantics)

2003

- Distributed Automata and DNA Graphs (XVI Tarragona Seminar on Formal Syntax and Semantics)
- Brainstorming Week on Membrane Computing, Tarragona
- Special Session on Biomolecular Mathematics, First Joint International Meeting between the American Mathematical Society and the Real Sociedad Matemática Española, Sevilla (jointly with T. Head, F. Guzmán and M. Pérez-Jiménez)
- Circular Splicing and the Semiotics of Life (XVII Tarragona Seminar on Formal Syntax and Semantics)
- MolCoNet Workshop on Membrane Computing, Tarragona
- Algebraic Grammar and Rough Set Theory (XVIII Tarragona Seminar on Formal Syntax and Semantics)
- Special Session on Biomolecular Mathematics, Eastern Sectional Meeting of the American Mathematical Society, Binghamton, United States (jointly with T. Head, D. Pixton and M. Oghara)

2004

- Computing with Trees: Transducers and XML (XIX Tarragona Seminar on Formal Syntax and Semantics)
- Formal Languages, Model Theory And Geometric Logic (XX Tarragona Seminar on Formal Syntax and Semantics)

2005

- Pattern Recognition Approaches To Machine Translation (XXI Tarragona Seminar on Formal Syntax and Semantics)
Seminars 2005 - 2006

For comments and discussions, please email the respective author:

(Last updated February 9th, 2006)

- **February 9 Cristina Bibire:**
  The Power of Correction Queries PPS.
- **January 9 Catalin Ionut Tarnauca:**
  Weighted Tree Transducers - A Short Introduction PPT.
- **October 31 Cristina Bibire:**
  Attempts to extend correction queries PPS.
- **June 17 Cristina Bibire:**
  Characterization of state merging strategies which ensure identification in the limit from complete data (II) PPS.
- **April 7 Guangwu Liu:**
  Transformations Induced by Transducers PDF.
- **March 29 Peter Leupold:**
  Evolution and Observation
- **March 14 Pavel Makagonov (Universidad Tecnológica de la Mixteca, México; Moscow Government, Russia), Mikhail Alexandrov (Instituto Politécnico Nacional, México; Universidad Politécnica de Valencia), Konstantin Sboychakov (Technical Central Library of Russia):**
  Data Mining: Examples and Software for Decision-Making
- **March 8 Dolores Jiménez López:**
  Infinite Languages from Finite Ones
- **February 28 Adela Grando:**
  Eco-grammar Systems as self-adaptive and distributed evolutionary computational models
- **February 21 Mihai Ionescu:**
  Spiking Neural-Like P Systems - PPT
- **February 16 Szilard Zsolt Fazekas:**
  Alternative ways of approaching context-free languages
- **February 7 Adrian Horia Dediu:**
  Strings and Structures PDF.
- **January 31 Carlos Cruz Reyes:**
  Image Compression using Weighted Finite Automata. The automata inference algorithm
- **January 24 Liliana Cojocaru:**
  CD Grammar Systems working in competence mode - Decidability and Complexity results
- **January 21 Cristina Bibire:**
  Characterization of state merging strategies which ensure identification in the limit from complete data PPS.
- **January 10 Leonor Becerra Bonache:**
  Learnability of Mildly Context-Sensitive Languages Using Positive Data and Correction Queries

Older seminars

Forms

- Permission form
- Progress report
Older Seminars

For comments and discussions, please email the respective author:

(Last updated 10th, 2004)

- **Zoltan Esik**: An Algebraic Characterization of Temporal Logics on Finite Trees PDF.

- **Cristina Bibire**: Languages Generated by Programmed Grammars with Various Graphs PPS.

- **Adela Grando**: Simulating Evolutionary Algorithms with Eco-grammar Systems PDF.

- **Mihai Ionescu**: Inhibiting/De-inhibiting Rules in P Systems PDF, PS.

- **Remco Loos**: Notions of Parallelism in Natural Computing PDF.

- **Artiom Alhazov**: Systems and Devices Generating Classes of Languages. PS, PS, Part 2

- **Gemma Bel Enguix**: Introducing Some Elements of Parallelism In Conversation Modeling With Membrane Systems. PDF

- **Adela Grando**: Two Mechanisms of Parallel and Distributed Computation: Concurrent Programming and Grammar Systems. PS and the PPT-presentation.

- **Adela Grando and Victor Mitran**: Can PC Grammar Systems Benefit from Concurrent Programming? PS.

- **Mihai Ionescu**: Following the Trace of Objects in Symport/Antiport Systems. PPT, PDF

- **Liliana Cojocaru**: Communication Complexity of Cooperating Grammar Systems. PDF 1, PDF 2

- **Tooren-Ono Bldier**: Membrane Operations in P Systems With Active Membranes. PDF

- **Adrian Horia Dede**: Applications of Evolutionary Algorithms in Formal Languages and Behaviour Simulation. PDF, PPT, HTML. See also TicTacToe using Evolutionary Algorithms

- **Peter Leupold**: Roots of Formal Languages. PS

- **Carlos Martin Vide and Victor Mitran**: Hybrid Networks of Evolutionary Processors. PS and archive of background: ZIP.

- **Dr. Linqiang Pan**: Polarizations, Labels, Sequential and Parallel Use of Laws in P Systems with Active Membranes. See some related articles: I and II.

- **Dr. M. Dolores Jiménez López**: General Natural Syntax. PPT.

- **Leonor Becerra Bonache**: Learning Mild Context-Sensitiveness: Toward Understanding Children's Language Learning. PDF.

- **Remco Loos**: A Non-Reflexive Definition of Splicing. PS.

- **Benedek Nagy**: Derivations in Chomsky-type grammars in mirror of parallelism. PDF, PPT.

- **Gabriela Martin**: A Possible Formal Framework for Developmental Systems. PDF.

- **José M. Sempere**: New Aspects of Watson-Crick Finite Automata. PDF.

- **Maribel Romero**: Intensional Noun Phrases with 'know' and 'be'. PDF.

Papers link: [http://www.ling.upem.edu/~sanguesa/papers.html](http://www.ling.upem.edu/~sanguesa/papers.html)