

# Applications of Algebra XV

Zakopane

March 2011

## Tuesday, March 8th

### Morning session

9.50 Opening

10.00 Jānis Cīrulis  
*Orthoposets with quantifiers*

10.45 Sergejs Solovjovs  
*Functorial semantics of topological theories*

11.15 Coffee break

11.45 Marek Nowak  
*On an archetypal representation of Galois connections for complete lattices*

12.30 Orest Artemovych  
*FC-rings*

### Afternoon session

15.00 Yutaka Miyazaki

15.45 Zofia Kostrzycka  
*On some interesting properties of some uninteresting logics*

16.15 Coffee break

16.45 Bożena Staruch, Bogdan Staruch  
*On maximal possible congruences for partial algebras*

17.15 Adam Kolany

*DPLL - Procedure for generalised satisfiability on hypergraphs*

17.45 Marcin Ziółkowski

*Some generalization of  $M/M/n/m$  queuing systems with non-homogenous servers*

## Wednesday, March 9th

### Morning session

- 9.30 Raja Natarajan  
*CAS versus ITP*
- 10.15 Rafał Gruszczyński, Andrzej Pietruszczak  
*Sums, fusions and aggregates in theories of parthood*
- 11.00 Coffee break
- 11.30 Mirko Navara  
*Vector techniques in fuzzy arithmetic*
- 12.15 Paweł Waszkiewicz  
*Fixed points in quantale-enriched categories*

**20.00 Conference dinner**

## Thursday, March 10th

### Morning: Trip

### Afternoon session

15.45 Gabor Bacsó

*Upper chromatic number of finite projective planes*

16.30 Anna Bień

*Methods of reduction of singular graphs*

17.00 Coffee break

17.30 Angela Mestre

18.00 Olga Siedlecka - Lamch

*A bisimulation relation for selected types of probabilistic and quantum automata*

## Friday, March 11th

### Morning session

- 10.00 Ireneusz Szcześniak  
*Accuracy evaluation of a method for calculating routing probabilities*
- 10.30 Bożena Woźna-Szcześniak, Andrzej Zbrzezny  
*A translation of the existential model checking problem for MITL to the existential model checking problem for X-LTL*
- 11.00 Bożena Woźna-Szcześniak, Agnieszka Zbrzezny  
*SAT-based BMC for the existential part of Real-Time CTLK*
- 11.30 Coffee break
- 12.00 Mirosław Kurkowski, Paweł Dudek  
*A SAT-based analysis of some cryptographic systems*
- 12.30 Adrian Sadowski, Artur Jakubski  
*Testing satisfiability of logical formulas and verifying tautologies using programmable devices*

### Afternoon session (in Polish)

- 15.30 Robert Dyja, Artur Jakubski  
*A picture that is something more than just a picture*
- 16.00 Artur Gola  
*Object Detection in Colour Images by use of Fuzzy Sets and Fuzzy Relations*
- 16.30 Oleg Tikhonenko  
*Single-server queueing systems with random capacity customers*
- 17.00 Coffee break
- 17.30 Katarzyna Domańska  
*On some addition formulas which are fulfilled by homographic type functions*

- 18.00 Kazimierz Czarnota  
*How a snake can eat itself - a formal description. As an analogy - >  
what a system can tell about itself*

## Saturday, March 12th

### Morning session

- 10.00 Jurij Povstenko  
*Dirichlet and Neumann boundary-value problems for diffusion-wave equation*
- 10.45 Lidia Stepień, Marcin Ryszard Stepień  
*Automatic search of strong automorphisms of Witt rings*
- 11.15 Coffee break
- 11.45 Wojciech Dzik  
*Unifiers in some weakly regular algebras*
- 12.15 Joanna Grygiel  
*Numerical characterization of finite distributive lattices by means of their weighted double skeletons*