

CONFERENCE PROGRAMME  
APPLICATIONS OF ALGEBRA IN LOGIC  
AND COMPUTER SCIENCE XX  
ZAKOPANE, 7TH—13TH MARCH 2016

TUESDAY, MARCH 8TH

**Morning session.**

- 9.45 Opening
- 10.00 Sándor Radeleczki  
*Logical analogies between rough sets and intuitionistic fuzzy sets*
- 10.45 Mirko Navara  
*Operations in orthomodular lattices and the role of Sasaki projection*
- 11.15 Coffee break
- 11.45 Janusz Czelakowski  
*Rasiowa-Sikorski Sets and Forcing*
- 12.15 Wojciech Dzik  
*Direct product and unification. Applications to residuated lattices and to intuitionistic logic with additional connectives*

**Afternoon session.**

- 15.30 Aleksandra Kiślak-Malinowska  
*Pregroups with context*
- 16.00 Mirosława Kołowska-Gawiejnowicz  
*Some remarks on Lambek Calculus and Lambek-Grishin Calculus*
- 16.30 Emília Halušková  
*On direct limit closed classes of algebras*
- 17.00 Coffee break
- 17.30 Zofia Kostrzycka  
*TBA*
- 18.00 Yutaka Miyazaki  
*The structure of the lattice  $\text{Next}(KB)$*
- 18.30 Bogdan and Bożena Staruch  
*Decomposition of algebras into one-dimensional factors with use of Goldie bases*

WEDNESDAY, MARCH 9TH

**Morning session.**

- 9.45 Adam Kolany  
*Some Algebraic and Algorithmic Problems in Acoustocerebrography*
- 10.30 Raja Natarajan  
*On a Correspondence Between Voting Theory and Program Logics*
- 11.15 Coffee break

- 11.45 Łukasz Lachowski  
*On the Complexity of the Standard Translation of Lambda Calculus to Combinatory Logic*
- 12.15 Agnieszka Łupińska  
*Parallel standard translation between Lambda Calculus and Combinatory Logic*
- 12.45 Maciej Bendkowski  
*A natural counting of lambda terms*

**20.00 Conference dinner.**

- 21.00 Joanna Grygiel  
*20 years of AALCS*

THURSDAY, MARCH 10TH

**Morning: Trip.**

**Afternoon session.**

- 15.45 Tomasz Połacik  
*Archetypal Rules*
- 16.30 Anna Glenszczyk  
*Monadic Fragments of Intuitionistic Control Logic*
- 17.00 Coffee break
- 17.30 Piotr Wójcik  
*TBA*
- 18.00 Andrzej Zbrzezny  
*SMT-based Bounded Model Checking WELTLK Properties of Weighted Interpreted Systems*
- 18.30 Agnieszka Zbrzezny  
*Checking WECTLK Properties of Timed Real-Weighted Interpreted Systems via SMT-based Bounded Model Checking*

FRIDAY, MARCH 11TH

**Morning session.**

- 9.45 Mieczysław Kula  
*Access structures determined by extreme polymatriods*
- 10.15 Renata Kawa and Mieczysław Kula  
*Hierarchy of multipartite access structures*
- 10.45 Coffee break
- 11.15 Edouard Wagneur  
*The Dominant of a Matrix. Application to the Classification of Tropical Modules*
- 12.00 Marcin Łazarz  
*An extension of the F. Sik's theorem on modular lattices*
- 12.30 Kalle Kaarli  
*Clones of compatible functions on abelian groups*

**Afternoon session.**

- 15.00 Sayan Panma  
*Isomorphism Conditions for Cayley Graphs of Rectangular Groups*
- 15.30 Apirat Wanichsombat  
*Complete Regularity Monoids of Directed Paths*
- 16.00 Somnuek Worawiset  
*Endo-Regularity of cycle flower graphs  $C_{n,3}$*
- 16.30 Coffee break
- 17.00 Lidia Stępień, Marcin Stępień, and Marcin Ziółkowski  
*Time calculations in school*
- 17.30 Katarzyna Troczka-Pawelec  
 *$K$ -continuity of  $K$ -subquadratic multifunctions with respect to weakly  $K$ -boundedness*

**Special session.**

- 18.00 Kazimierz Czarnota  
*Formalization of meaning of expressions in language  $J$*

SATURDAY, MARCH 12TH

**Morning session.**

- 9.45 Ryszard Miszczyński  
*Stanisław Leśniewski's Two Formal Languages*
- 10.15 Gabriela Besler  
*Gottlob Frege's Logic and Boolean algebra*
- 10.45 Coffee break
- 11.15 Yuriy Povstenko  
*Mechanics and geometry. Part III*
- 11.45 Jerzy Pogonowski  
*Famous Mistakes in Mathematics*
- 12.30 Joanna Grygiel and Katarzyna Grygiel  
*Counting tolerances on chains*
- 13.15 Farewell