

CONFERENCE PROGRAMME  
APPLICATIONS OF ALGEBRA IN LOGIC  
AND COMPUTER SCIENCE XXI  
ZAKOPANE, 20TH—26TH MARCH 2017

TUESDAY, MARCH 21ST

**Morning session.**

- 9.45 Opening
- 10.00 Jerzy Pogonowski  
*Why do we believe in the intended models?*
- 10.45 Katarzyna Grygiel  
*Judging about random programs: what we know and what we don't*
- 11.30 Coffee break
- 12.00 Jan Paseka  
 *$Q$ -sup-algebras and their representation*
- 12.30 Adam Doliwa  
*On Hopf algebra structures of context-free languages*

**Afternoon session.**

- 16.00 Aleksandra Kiślak-Malinowska  
*Treating English Passive Voice with pregroups*
- 16.30 Rafał Gruszczyński  
*A region-based axiomatization of geometry with incidence and betweenness as primitive notions*
- 17.00 Coffee break
- 17.30 Zofia Kostrzycka  
*Negative results for interpolation in  $NEXT(KTB)$*
- 18.00 Wojciech Dzik  
*First-order logics  $L_n\forall$  and  $L_\infty\forall$  of Łukasiewicz*

WEDNESDAY, MARCH 22ND

**Morning session.**

- 10.00 Adam Kolany  
*BREAKUP algorithm in general settings*
- 10.45 Piotr Dymek  
*Multiplier algebras generated by weighted shifts on directed trees*
- 11.15 Coffee break
- 11.45 Emília Halušková  
*The endomorphism kernel property for monounary algebras*
- 12.15 Marcin Łazarz  
*Covering sublattices and semimodularity*
- 12.45 Tomasz Połacik  
*Archetypal rules and intermediate logics*

**20.00 Conference dinner.**

THURSDAY, MARCH 23RD

**Morning: Trip.**

**Afternoon session.**

- 15.30 Iwona Tyrła  
*On the alienation of the Cauchy equation and the Lagrange equation*
- 16.00 Bożena Staruch, Bogdan Staruch  
*Decomposition of congruence distributive algebras*
- 16.30 Renata Kawa  
*Modified transportation problem*
- 17.00 Coffee break
- 17.30 Jerzy Povstenko  
*Harmonic impact in time – fractional equations*

**Special session.**

- 18.00 Kazimierz Czarnota  
*System of communication of bees – description and formalization*

FRIDAY, MARCH 24TH

**Afternoon session.**

- 15.00 Agnieszka Zbrzezny  
*Efficient model checking timed and weighted interpreted systems using SMT and SAT solvers*
- 15.30 Andrzej Zbrzezny  
*Verifying Real-Time Properties of Multi-Agent Systems via SMT-based Bounded Model Checking*
- 16.15 Coffee break
- 16.45 Szymon Chlebowski, Andrzej Gajda  
*Haskell implementation of Abductive Question-Answer System (AQAS) for classical propositional logic*
- 17.15 Lidia Stepień, Marcin Stepień  
*Groups of strong automorphisms of Witt rings generated by small square class groups*

SATURDAY, MARCH 25TH

**Student session.**

- 9.50 Paweł Lechowski  
*Application of graph theory to temporal analysis*
- 10.10 Marek Barton  
*Jan Łukasiewicz and his multi-valued logics*

**Morning session.**

- 10.30 Ryszard Miszczyński  
*Stanisław Leśniewski's protothetic*
- 11.00 Coffee break
- 11.30 Gabriela Besler  
*Gottlob Frege's Logic and Boole's algebra – similarities and differences – part 2*
- 12.00 Wiesław Wójcik  
*The significance of mathematical methods for the development of Polish analytical philosophy of the interwar period*
- 12.30 Farewell