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LOGIC COLLOQUIUM 2021  
July 19–24, 2021, Poznań, Poland  
<https://lc2021.pl/>

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**Program Committee:** Boris Zilber (chair), Wojciech Buszkowski, Anuj Dawar, Giuseppe Primiero, Mariya Soskova, Henry Towsner, Matteo Viale.

**Organizing Committee:** Mariusz Urbański (co-chair), Roman Murawski (co-chair), Wojciech Buszkowski, Joanna Golińska-Pilarek, Leszek Kołodziejczyk, Paweł Łupkowski, Marek Nasieniewski, Jerzy Pogonowski, Tomasz Skura, Kazimierz Świrydowicz, Andrzej Wiśniewski.

**Local Organizing Committee:** Mariusz Urbański (chair), Paweł Łupkowski, Andrzej Gajda, Szymon Chlebowski, Natalia Żyluk, Patrycja Kupś, Dawid Ratajczyk, Agata Tomczyk, Marta Gawek, Aleksandra Wasielewska.

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All events will be held *via* ClickMeeting. Links will be sent to all registered participants. To each session a Technical Assistant will be assigned.

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**Keynotes:** 60 mins

*Invited talks:* 40 mins

Contributed talks: 20 mins

Session key:

**CMP** Computability

**CSL** Logic in Cognitive Science and Linguistics

**STH** Set Theory

**MTH** Model Theory

**MEP** Modal and Epistemic Logic

**PPR** Proofs and Programs

**GEN** General

For any inquiry please contact Andrzej Gajda ([andrzej.gajda@amu.edu.pl](mailto:andrzej.gajda@amu.edu.pl))

MONDAY / JULY 19, 2021

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- 08.30-09.00 Opening (Katarzyna Dziubalska-Kołaczyk, AMU Vice-Rector for Research; Andrew Arana, Head of the ASL Committee on Logic in Europe; Krzysztof Dyczkowski, dean of the AMU Faculty of Mathematics and Computer Science; Mariusz Urbański, dean of the AMU Faculty of Psychology and Cognitive Science; Boris Zilber, chair of the LC2021 Program Committee)
- 09.00-10.00 Keynote: **Noam Greenberg**, **The information common to relatively random sequences** (chair: Boris Zilber, TA: Natalia Żyluk)
- 10.15-11.15 Keynote: **Vera Fischer**, **Combinatorial sets of reals** (chair: Boris Zilber, TA: Natalia Żyluk)
- 11.30-12.30 sessions: 1CMP1, 1STH1, 1MTH1
- 14.00-15.00 sessions: 2CMP2, 2CSL1, 2STH2, 2MTH2
- 15.15-16.15 sessions: 3CMP3, 3CSL2, 3STH3, 3MTH3
- 16.30-17.30 Tutorial 1.1: **Krzysztof Krupiński**, **Topological dynamics in model theory** (TA: Patrycja Kupś)
- 17.30-18.30 Discussion rooms

TUESDAY / JULY 20, 2021

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- 09.00-10.00 Tutorial 2.1: **Andrew Marks**, **Characterizing Borel complexity and an application to decomposability** (TA: Andrzej Gajda)
- 10.15-11.15 sessions: 4CMP4, 4CSL3, 4STH4
- 11.30-12.30 sessions: 5CMP5, 5CSL4, 5STH5, 5MEP2
- 14.00-15.00 sessions: 6CMP6, 6CSL5, 6STH6, 6MEP3
- 15.15-16.15 Keynote: **Johan van Benthem**, **Interleaving Logic and Counting, A View from the Bottom** (chair: Andrzej Wiśniewski, TA: Andrzej Gajda)
- 16.30-17.30 Tutorial 1.2: **Krzysztof Krupiński**, **Topological dynamics in model theory** (TA: Patrycja Kupś)
- 17.30-18.30 Discussion rooms

WEDNESDAY / JULY 21, 2021

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- 09.00-10.00 Tutorial 2.2: **Andrew Marks**, **Characterizing Borel complexity and an application to decomposability** (TA: Andrzej Gajda)
- 10.15-11.15 Keynote: **Benoit Monin**, **The computational content of Milliken's tree theorem** (chair: Anuj Dawar, TA: Andrzej Gajda)
- 11.30-12.30 sessions: 7CMP7, 7CSL6, 7STH7, 7MEP4
- 14.00-15.00 Gödel lecture: **Elisabeth Bouscaren** (chair: Andrew Arana, TA: Andrzej Gajda)
- 15.15-16.15 sessions: 8CMP8, 8STH8, 8MEP5, 8PPR1
- 16.30-17.30 Tutorial 1.3: **Krzysztof Krupiński**, **Topological dynamics in model theory** (TA: Patrycja Kupś)
- 17.30-18.30 Discussion rooms

THURSDAY / JULY 22, 2021

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- 09.00-10.00 Tutorial 2.3: **Andrew Marks**, **Characterizing Borel complexity and an application to decomposability** (TA: Andrzej Gajda)
- 10.15-11.15 sessions: 9CMP9, 9MEP6, 9PPR2
- 11.30-12.30 sessions: 10CMP10, 10MEP7, 10PPR3
- 14.00-15.00 sessions: 11MEP8, 11PPR4
- 15.15-16.15 Keynote: **Luca Motto Ros**, **Generalized descriptive set theory for all cofinalities, and some applications** (chair: Joan Bagaria, TA: Natalia Żyluk)
- 16.30-17.30 Keynote: **Ryan Williams**, **Complexity Lower Bounds from Algorithm Design** (chair: Mariusz Urbański, TA: Natalia Żyluk)
- 17.30-18.30 Discussion rooms

FRIDAY / JULY 23, 2021

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- 09.00-10.00 sessions: 12PPR5, 12MTH4  
10.15-11.15 sessions: 13PPR6, 13MTH5, 13GEN1  
11.30-12.30 sessions: 14PPR7, 14MTH6, 14GEN2  
14.00-15.00 sessions: 15PPR8, 15GEN3, 4MEP1  
15.15-16.15 Keynote: **Frank Pfenning, Adjoint Logic** (chair: Henry Towsner, TA: Natalia Żyluk)  
16.30-17.30 Keynote: **Linda Westrick, Reverse mathematics of Borel sets** (chair: Mariya Soskova, TA: Natalia Żyluk)  
17.30-18.30 Discussion rooms

SATURDAY, JULY 24, 2021

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- 09.00-10.00 Keynote: **Artem Chernikov, Measures in model theory** (chair: Matteo Viale, TA: Patrycja Kupś)  
10.15-11.15 sessions: 16PPR9, 16MTH7, 16GEN4  
11.30-12.30 sessions: 17PPR10, 17MTH8, 17GEN5  
14.00-15.00 sessions: 18PPR11, 18MTH9, 18GEN6  
15.15-16.15 sessions: 19PPR12, 19MTH10, 19GEN7  
16.30-17.30 Keynote: **Elaine Pimentel, A pure view of ecumenical modalities** (chair: Wojciech Buszkowski, TA: Patrycja Kupś)  
17.30-18.30 Let's close LC2021 and let's hear about LC2022

## SESSIONS

### **CMP: Computability**

(Invited speakers sessions organized by Steffen Lempp and Matthew Harrison-Trainer)

- 1CMP1 (chair: Matthew Harrison-Trainer, TA: Dawid Ratajczyk)  
(19.07.21) - Leszek Kołodziejczyk, *Weak König's Lemma in the absence of  $\Sigma_1^0$  induction.* (11.30-12.10)
- 2CMP2 (chair: Roman Murawski, TA: Dawid Ratajczyk)  
(19.07.21) - Sergei Ospichev, *About families in Ershov hierarchy without Friedberg numberings.* (14.00-14.20)  
- Donald Stull, *Algorithmic Randomness and Fractal Geometry.* (14.20-14.40)  
- Marta Fiori Carones, *Measuring the strength of Ramsey-theoretic statements over  $RCA_0^*$ .* (14.40-15.00)
- 3CMP3 (chair: Steffen Lempp, TA: Dawid Ratajczyk)  
(19.07.21) - Manlio Valenti, *Algebraic properties of the first-order part of a problem.* (15.15-15.35)  
- Arman Darbinyan, *Computable groups and computable group orderings.* (15.35-16.15)
- 4CMP4 (chair: Matthew Harrison-Trainer, TA: Dawid Ratajczyk)  
(20.07.21) - Nikolay Bazhenov, *Primitive recursive algebraic structures, and the theory of numberings.* (10.15-10.55)
- 5CMP5 (chair: Aleksander Iwanow, TA: Dawid Ratajczyk)  
(20.07.21) - Nikolay Bazhenov, Dariusz Kalociński and Michał Wrocławski, *Degree spectra of unary recursive functions on naturals with standard ordering.* (11.30-11.50)  
- Laurent Bienvenu, Valentino Delle Rose and Tomasz Steifer, *Computable randomness relative to almost all oracles.* (11.50-12.10)  
- Vittorio Cipriani, *Cantor-Bendixson theorem in the Weihrauch lattice.* (12.10-12.30)
- 6CMP6 (chair: Anton Setzer, TA: Dawid Ratajczyk)  
(20.07.21) - Katarzyna W. Kowalik, *Classifying Ramsey-theoretic principles with strongly infinite witnesses over  $RCA_0^*$ .* (14.00-14.20)  
- Agnieszka Kozdęba and Apoloniusz Tyszka, *The physical limits of computation inspire an open problem that concerns decidable sets  $X \subseteq \mathbb{N}$  and cannot be formalized in ZFC as it refers to the current knowledge on  $X$ .* (14.20-14.40)
- 7CMP7 (chair: Laurent Bienvenu, TA: Dawid Ratajczyk)  
(21.07.21) - Andrés Cordón-Franco, F. Félix Lara-Martín and Manuel J.S. Loureiro, *On determinacy of Lipschitz and Wadge games in second order arithmetic.* (11.30-11.50)  
- Karol Duda and Aleksander Iwanow, *A finitely presented group with undecidable amenability.* (11.50-12.10)  
- Margarita Gaskova, *Boolean algebras autostable relative to n-constructivizations.* (12.10-12.30)
- 8CMP8 (chair: Steffen Lempp, TA: Dawid Ratajczyk)  
(21.07.21) - Jun Le Goh, *Redundancy of information: Lowering effective dimension.* (15.15-15.55)  
- Paul Shafer, *An infinite  $\Pi_1$  set with no  $\Delta_2$  cohesive subset.* (15.55-16.15)
- 9CMP9 (chair: Roman Murawski, TA: Dawid Ratajczyk)  
(22.07.21) - Josiah Jacobsen-Grocott, *A Characterization of the Strongly  $\eta$ -Representable Many-One Degrees.* (10.15-10.35)  
- Paweł Płaczek, *The PTIME complexity of multiplicative nonassociative bilinear logic.* (10.35-10.55)  
- Sam Sanders, *The Big Six and Big Seven of Reverse Mathematics, and a new zoo.* (10.55-11.15)
- 10CMP10 (chair: Roman Murawski, TA: Dawid Ratajczyk)  
(22.07.21) - Maxim Zubkov and Andrey Frolov, *Spectral universality of linear orders with one binary relation.* (11.30-11.50)  
- Yana Michailovskaya, *Computable linear orders enriched by the relations  $S_L^n$ .* (11.50-12.10)  
- Anton Setzer, *A model of computation for single threaded sequential interactive programs.* (12.10-12.30)

**CSL: Logic in Cognitive Science and Linguistics**  
(Invited speakers sessions organized by Andrzej Wiśniewski)

- 2CSL1** (19.07.21) (chair: Andrzej Wiśniewski, TA: Aleksandra Wasielewska)  
- Jonathan Ginzburg, *Quantifiers as (quasi)-Referential Pluralities*. (14.00-14.40)
- 3CSL2** (19.07.21) (chair: Andrzej Gajda, TA: Aleksandra Wasielewska)  
- Urszula Wybraniec-Skardowska, A formal-logic approach to the ontology of language. (15.15-15.35)  
- Paweł Łupkowski, Erotetic search scenarios and blackboard architecture in group question decomposition. (15.35-15.55)  
- Jakub Dakowski, Aleksandra Draszewska, Barbara Adamska, Dominika Juszczyk, Łukasz Abramowicz and Robert Szymański, Addressing logic students' proof making difficulties with Plugin Oriented Programming and gamification. (15.55-16.15)
- 4CSL3** (20.07.21) (chair: Andrzej Wiśniewski, TA: Aleksandra Wasielewska)  
- Piotr Łukowski, *A Proposal for Formalization of Kahneman and Tversky's Thinking Fast and Slow*. (10.15-10.55)
- 5CSL4** (20.07.21) (chair: Andrzej Wiśniewski, TA: Aleksandra Wasielewska)  
- Mariusz Urbański, *Descriptions are not enough and norms are not forever. Formal modelling of human reasoning processes: triggers, methods and results*. (11.30-12.10)
- 6CSL5** (20.07.21) (chair: Paweł Łupkowski, TA: Aleksandra Wasielewska)  
- Francisco Salto and Carmen Requena, BRAIN ACTIVITY MARKS OF LOGICAL VALIDITY: results from EEG and MEG studies. (14.00-14.20)  
- Andrzej Gajda, Abductive reasoning in a neural-symbolic system. (14.20-14.40)  
- Alba Massolo and Inés Crespo, Arguments against a Bayesian approach to the normativity of argumentation. (14.40-15.00)
- 7CSL6** (21.07.21) (chair: Wojciech Buszkowski, TA: Aleksandra Wasielewska)  
- Michael Kaminski, *Extending the Lambek calculus with classical negation*. (11.30-12.10)  
- Lachlan McPheat, Mehrnoosh Sadrzadeh, Hadi Wazni and Gijs Wijnholds, Vectorial discourse analysis in Lambek calculus with a bounded relevant modality. (12.10-12.30)

## STH: Set Theory

(Invited speakers sessions organized by Joan Bagaria and Christina Brech)

- 1STH1** (19.07.21) (chair: Joan Bagaria, TA: Agata Tomczyk)  
- Omer Ben-Neria and Dominik Adolf, *Tree-like scales and free subsets of set theoretic algebras*. (11.30-12.10)
- 2STH2** (19.07.21) (chair: Matteo de Ceglie, TA: Agata Tomczyk)  
- Luke Gardiner, *Countable Exponent Partition Relations on the Real Line*. (14.00-14.20)  
- Paul Blain Levy, *Broad Infinity and Generation Principles*. (14.20-14.40)  
- Gabriel Ciobanu, *Various notions of infinity for finitely supported structures*. (14.40-15.00)
- 3STH3** (19.07.21) (chair: Luke Gardiner, TA: Agata Tomczyk)  
- Matteo de Ceglie, *The V-logic Multiverse and MAXIMIZE*. (15.15-15.35)  
- Sourav Tarafder and Giorgio Venturi, *ZF between classicality and non-classicality*. (15.35-15.55)  
- Martina Iannella, *The complexity of convex bi-embeddability among countable linear orders*. (15.55-16.15)
- 4STH4** (20.07.21) (chair: Joan Bagaria, TA: Agata Tomczyk)  
- Sandra Müller, *The strength of determinacy when all sets are universally Baire*. (10.15-10.55)
- 5STH5** (20.07.21) (chair: Sandra Müller, TA: Agata Tomczyk)  
- Vladimir Kanovei, *On the ‘Definability of definable’ problem of Alfred Tarski*. (11.30-11.50)  
- Philipp Moritz Lücke, *Huge reflection*. (11.50-12.10)  
- Christopher Turner, *Forcing axioms and name principles*. (12.10-12.30)
- 6STH6** (20.07.21) (chair: Christina Brech, TA: Agata Tomczyk)  
- Giorgio Venturi, *On non-classical models of ZFC*. 14.00-14.40
- 7STH7** (21.07.21) (chair: Giorgio Venturi, TA: Agata Tomczyk)  
- Borisa Kuzeljevic and Stevo Todorcevic, *Cofinal types on  $\omega_2$* . (11.30-11.50)  
- Santiago Jockwich Martinez, *Algebra-valued models and Priests Logic of Paradox*. (11.50-12.10)
- 8STH8** (21.07.21) (chair: Christina Brech, TA: Agata Tomczyk)  
- Trevor Wilson, *Characterizing strong cardinals, virtually strong cardinals, and other large cardinals by Löwenheim–Skolem properties*. (15.15-15.55)

## MEP Modal and Epistemic Logic

(Invited speakers sessions organized by Nina Gierasimczuk)

- 5MEP2 (20.07.21) (chair: Marek Nasieniewski, TA: Marta Gawek)  
- Gemma Robles, Alternative semantical interpretations of the paraconsistent and paracomplete 4-valued logic PL4. (11.50-12.10)  
- Yana Rumenova and Tinko Tinchev, Undecidability of modal definability: the class of frames with two commuting equivalence relations. (12.10-12.30)
- 6MEP3 (20.07.21) (chair: Nina Gierasimczuk, TA: Marta Gawek)  
- Thomas Bolander, *From Dynamic Epistemic Logic to Socially Intelligent Robots*. (14.00-14.40)
- 7MEP4 (21.07.21) (chair: Marek Nasieniewski, TA: Marta Gawek)  
- Gaia Belardinelli and Rasmus K. Rendsvig, Epistemic Planning with Attention as a Bounded Resource. (11.30-11.50)  
- Meghdad Ghari, A temporal logic of justification and obligation. (11.50-12.10)  
- Taneli Huuskonen, Cromulence logic: duty meets preference. (12.10-12.30)
- 8MEP5 (21.07.21) (chair: Nina Gierasimczuk, TA: Marta Gawek)  
- Helle Hvid Hansen, *Automata Minimisation in Logical Form*. (15.15-15.55)  
- Dylan Bellier, Massimo Benerecetti, Dario Della Monica and Fabio Mogavero, Good-for-Game QPTL: An Alternating Hodges Semantics. (15.55-16.15)
- 9MEP6 (22.07.21) (chair: Willem Conradie, TA: Marta Gawek)  
- Eric Raidl, Definable conditionals. (10.15-10.35)  
- Yuya Okawa, Sohei Iwata and Taishi Kurahashi, Craig's interpolation and the fixed point properties for sublogics of interpretability logic IL. (10.35-10.55)
- 10MEP7 (22.07.21) (chair: Marek Nasieniewski, TA: Marta Gawek)  
- Eric Raidl, Andrea Iacona and Vincenzo Crupi, The Logic of the Evidential Conditional. (11.30-11.50)  
- Willem Conradie and Valentin Goranko, Algorithmic correspondence for relevance logics. (11.50-12.10)  
- Davide Emilio Quadrellaro and Gianluca Grilletti, Topological Semantics for Inquisitive and DNA-logics. (12.10-12.30)
- 11MEP8 (22.07.21) (chair: Nina Gierasimczuk, TA: Dawid Ratajczyk)  
- Aleksi Anttila, Maria Aloni and Fan Yang, A logic for modelling free choice inference. (14.00-14.20)  
- Alexandru Baltag, *The Logic of Cantor's Derivative and the Perfect Core: a topo-logical exploration of unknowable worlds, surprise exams and other epistemic paradoxes*. (14.20-15.00)
- 4MEP1 (23.07.21) (chair: Dorota Leszczyńska-Jasion, TA: Natalia Żyłuk)  
- Sophia Knight, *Reasoning about agents' knowledge about one another's strategies in Strategy Logic*. (14.00-14.40)  
- Douglas Moore, Naturality as Universal Normative Authority in Stoic Logic. (14.40-15.00)

## PPR Proofs and Programs

(Invited speakers sessions organized by Monika Seisenberger)

- 8PPR1 (chair: Monika Seisenberger, TA: Szymon Chlebowski)  
(21.07.21) - *Helmut Schwichtenberg, Proofs and computation with infinite data.* (15.15-15.55)
- 9PPR2 (chair: Monika Seisenberger, TA: Szymon Chlebowski)  
(22.07.21) - *Tom Powell, Some recent work in proof mining.* (10.15-10.55)
- 10PPR3 (chair: Ivo Pezlar, TA: Szymon Chlebowski)  
(22.07.21) - Nicola Bonatti, Two questions concerning quantifiers rules. (11.30-11.50)  
- Michał Sochański and Dorota Leszczyńska-Jasion, On the representation of logical formulas as cographs. (11.50-12.10)
- 11PPR4 (chair: Dorota Leszczyńska-Jasion, TA: Marta Gawek)  
(22.07.21) - Ivo Pezlar, A Note on Paradoxical Propositions from an Inferential Point of View. (14.00-14.20)  
- Agata Tomczyk, Marta Gawek and Szymon Chlebowski, Natural Deduction Systems for Intuitionistic Logic with Identity. (14.20-14.40)  
- Amirhossein Akbar Tabatabai, Feasible Visser-Harrop property for intuitionistic modal logics. (14.40-15.00)
- 12PPR5 (chair: Monika Seisenberger, TA: Szymon Chlebowski)  
(23.07.21) - Valeria de Paiva and Samuel G. Da Silva, Dialectica and Kolmogorov-Veloso problems. (09.00-09.20)  
- *Vincent Rahli, Brouwerian Intuitionistic Realizability Theories.* (09.20-10.00)
- 13PPR6 (chair: Vincent Rahli, TA: Szymon Chlebowski)  
(23.07.21) - Mateusz Łełyk, On Sigma1 uniform reflection over uniform Tarski biconditionals. (10.15-10.35)  
- Alexej Pynko, Finite Hilbert-style calculi for disjunctive and implicative finitely-valued logics with equality determinant. (10.35-10.55)  
- Anahit Chubaryan and Arsen Hambarzumyan, On non-monotonous properties of some propositional proof systems. (10.55-11.15)
- 14PPR7 (chair: Bartosz Wcisło, TA: Marta Gawek)  
(23.07.21) - Horatiu Cheval, General metatheorems in proof mining. (11.30-11.50)  
- Anahit Chubaryan, Sargis Hovhannisyan and Hayk Gasparyan, Comparison of two propositional proof systems by lines and by sizes. (11.50-12.10)  
- Michał Sochański, Dorota Leszczyńska-Jasion, Szymon Chlebowski, Agata Tomczyk, Aleksander Kiryk and Marcin Jukiewicz, Synthetic tableaux: using data analysis in the optimization of proof search. (12.10-12.30)
- 15PPR8 (chair: Bartosz Wcisło, TA: Szymon Chlebowski)  
(23.07.21) - Raheleh Jalali, On hard theorems for substructural logics. (14.00-14.20)  
- Mattias Granberg Olsson and Graham Leigh, A proof of conservativity of  $\widehat{ID}_1^i$  over Heyting arithmetic via truth. (14.20-14.40)
- 16PPR9 (chair: Monika Seisenberger, TA: Szymon Chlebowski)  
(24.07.21) - *Dominique Larchey-Wendling, Extraction of recursive algorithms in Coq using the Braga method.* (10.15-10.55)
- 17PPR10 (chair: Dominique Larchey-Wendling, TA: Szymon Chlebowski)  
(24.07.21) - Lew Gordeev and Edward Haeusler, On Proof Theory in Computational Complexity. (11.30-11.50)  
- Marcin Jukiewicz and Dorota Leszczyńska-Jasion, Improving the work of a genetic algorithm in proof-search tasks. (11.50-12.10)  
- Luiz Carlos Pereira, Elaine Pimentel and Valeria de Paiva, Ecumenic Negation: one or two? (12.10-12.30)



- 18PPR11 (chair: Lew Gordeev, TA: Szymon Chlebowski)  
(24.07.21)
- Yukihiro Masuoka and Makoto Tatsuta, Counterexample to cut-elimination in cyclic proof system. (14.00-14.20)
  - Yaroslav Petrukhin, Cut-free proof systems for non-standard modal logics based on S5. (14.20-14.40)
  - Bartosz Wcisło, Disjunctive correctness and sequential induction. (14.40-15.00)
- 19PPR12 (chair: Lew Gordeev, TA: Szymon Chlebowski)  
(24.07.21)
- Yong Cheng, The interpretation degree structure of r.e. theories for which the first incompleteness theorem holds. (15.15-15.35)
  - Peter Koepke, The Naproche natural language proof assistant. (15.35-15.55)
  - Katalin Bimbo, Abaci running backward. (15.55-16.15)

## MTH Model Theory

(Invited speakers sessions organized by Ludomir Newelski)

- 1MTH1** (chair: Ludomir Newelski, TA: Aleksandra Wasielewska)  
(19.07.21) - Pablo Cubides Kovacsics, *Beautiful pairs and spaces of definable types*. (11.30-12.10)
- 2MTH2** (chair: Pablo Cubides Kovacsics, TA: Szymon Chlebowski)  
(19.07.21) - Ivan Di Liberti, *Formal model theory and Higher Topology*. (14.00-14.20)  
- Aizhan Altayeva, Beibut Kulpeshov and Sergey Sudoplatov, *On algebras of binary formulas for almost  $\omega$ -categorical weakly o-minimal theories*. (14.20-14.40)  
- Dmitry Emelyanov, Beibut Kulpeshov and Sergey Sudoplatov, *On algebras of binary formulas for partially ordered theories*. (14.40-15.00)
- 3MTH3** (chair: Ludomir Newelski, TA: Szymon Chlebowski)  
(19.07.21) - *Yatir Halevi, Definable fields in various dp-minimal fields*. (15.15-15.55)
- 12MTH4** (chair: Ludomir Newelski, TA: Agata Tomczyk)  
(23.07.21) - *Daniel Max Hoffmann, Kim-independence and ranks*. (09.00-09.40)
- 13MTH5** (chair: Daniel Max Hoffmann, TA: Agata Tomczyk)  
(23.07.21) - John Baldwin, *Finer classification of Strongly minimal sets*. (10.15-10.35)  
- Adam Malinowski and Ludomir Newelski, *A few remarks on strongly generic sets*. (10.35-10.55)  
- Christian Espindola, *Categoricity theorems in infinite quantifier languages*. (10.55-11.15)
- 14MTH6** (chair: Adam Malinowski, TA: Agata Tomczyk)  
(23.07.21) - Alexey Stukachev, Marina Stukacheva and Alexey Ryzhkov, *Approximation spaces over dense linear orders*. (11.30-11.50)  
- Gergely Székely, *Conceptual Distance and Algebras of Concepts*. (11.50-12.10)  
- Francesco Gallinaro, *Around exponential algebraic closedness*. (12.10-12.30)
- 16MTH7** (chair: Alexey Stukachev, TA: Agata Tomczyk)  
(24.07.21) - Davit Harutyunyan, *On Some Associative Formula with Functional Variables*. (10.15-10.35)  
- Viktor Verbovskiy and Aigerim Dauletiyarova, *On local monotonicity of unary functions definable in o-stable ordered groups*. (10.35-10.55)  
- Ruaan Kellerman and Valentin Goranko, *Approximating trees as coloured linear orders and complete axiomatisations of some classes of trees*. (10.55-11.15)
- 17MTH8** (chair: Ruaan Kellerman, TA: Agata Tomczyk)  
(24.07.21) - Nurlan Markhabatov and Sergey Sudoplatov, *On closures for partially ordered families of theories*. (11.30-11.50)  
- Beibut Kulpeshov, *On criterion for binarity of almost  $\omega$ -categorical weakly o-minimal theories*. ((11.50-12.10))  
- Inessa Pavlyuk and Sergey Sudoplatov, *On rich properties for the family of theories of Abelian groups*. (12.10-12.30)
- 18MTH9** (chair: Ruaan Kellerman, TA: Marta Gawek)  
(24.07.21) - Pedro H. Zambrano and David Reyes, *Co-quantale valued logics*. (14.00-14.20)  
- Luca Reggio, *Game comonads and homomorphism counting in finite model theory*. (14.20-14.40)  
- Claudio Agostini and Eugenio Colla, *An algebraic characterization of Ramsey Monoids*. (14.40-15.00)
- 19MTH10** (chair: Pedro H. Zambrano, TA: Marta Gawek)  
(24.07.21) - Aibat Yeshkeyev, Aigul Issayeva and Nazgul Shamatayeva, *On atomic and algebraically prime definable subsets of semantic model*. (15.15-15.35)  
- Aibat Yeshkeyev, Olga Ulbrikht and Nazerke Mussina, *On the categoricity of the class of the Jonsson spectrum*. (15.35-15.55)  
- Aibat Yeshkeyev and Olga Ulbrikht, *The Jonsson nonforking notion under some positiveness*. (15.55-16.15)

## GEN General

- 13GEN1 (23.07.21) (chair: Roman Murawski, TA: Dawid Ratajczyk)  
- Pavel Arazim, Logic not being serious. (10.15-10.35)  
- Bruno Bentzen, How do we intuit mathematical constructions? (10.35-10.55)  
- Ludovica Conti, Logicality and Abstraction. (10.55-11.15)
- 14GEN2 (23.07.21) (chair: Pavel Arazim, TA: Dawid Ratajczyk)  
- Michał Tomasz Godziszewski and Luca San Mauro, Quotient structures, philosophy of computability theory and computational structuralism. (11.30-11.50)  
- Iosif Petrakis, Chu representations of categories related to constructive mathematics. (11.50-12.10)  
- Raffael Stenzel,  $(\infty, 1)$ -Categorical Comprehension Schemes. (12.10-12.30)
- 15GEN3 (23.07.21) (chair: Michał Tomasz Godziszewski, TA: Marta Gawek)  
- Nick Bezhanishvili and Fan Yang, Intermediate logics in the team semantics setting. (14.00-14.20)  
- José M. Méndez, Gemma Robles and Francisco Salto, Three-valued relevance logics. (14.20-14.40)
- 16GEN4 (24.07.21) (chair: Paula Quinon, TA: Aleksandra Wasielewska)  
- Sara L. Uckelman, Women in the history of logic: why does it matter who our foremothers are? (10.15-10.35)  
- Michał Tomasz Godziszewski, Fairness and Justified Representation in Judgment Aggregation and Belief Merging. (10.35-10.55)  
- Michał Walicki, Logic of sentential predicates. (10.55-11.15)
- 17GEN5 (24.07.21) (chair: Sara L. Uckelman, TA: Aleksandra Wasielewska)  
- Jannik Vierling, The limits of the n-clause calculus. (11.30-11.50)  
- Mohamed Khaled, Algebras of Concepts and Their Networks: Boolean Algebras. (11.50-12.10)  
- Judit Madarász, Concept algebra of special relativistic spacetime. (12.10-12.30)
- 18GEN6 (24.07.21) (chair: Leszek Kołodziejczyk, TA: Aleksandra Wasielewska)  
- Azza Gaysin, H-Coloring Dichotomy in Proof Complexity. (14.00-14.20)  
- William Stafford, Completeness of intuitionistic logic for generalised proof-theoretic semantics. (14.20-14.40)  
- Alberto Termine, Fabio Aurelio D'Asaro and Giuseppe Primiero, Modelling depth-bounded Boolean reasoning with Markov decision processes and reinforcement learning. (14.40-15.00)
- 19GEN7 (24.07.21) (chair: Leszek Kołodziejczyk, TA: Aleksandra Wasielewska)  
- Lorenzo Rossi and Michał Tomasz Godziszewski, First-order vs. Second-order theories: searching for deep disagreement. (15.15-15.35)  
- Paula Quinon, The anti-mechanist argument based on Gödel's Incompleteness Theorems, indescribability of the concept of natural number and deviant encodings. (15.35-15.55)