

ASSOCIATION FOR SYMBOLIC LOGIC
2021 NORTH AMERICAN ANNUAL MEETING

University of Notre Dame
South Bend, Indiana

June 22–25, 2021

Program Committee: Guram Bezhanishvili, Curtis Franks, Selwyn Ng, Dima Sinapova, Margaret Thomas and Henry Towsner (chair).

Local Organizing Committee: Tim Bays, Jc Beall, Paddy Blanchette, Peter Cholak, Curtis Franks, Julia Knight (co-chair), Anand Pillay (co-chair) and Sergei Starchenko.

All events will be held via Zoom. Links will be sent to all registered participants.

TUESDAY, June 22

Morning

- 8:30 – 8:50 Welcome and social time.
8:50 – 9:00 Opening remarks.
9:00 – 10:00 Tutorial: **Justin Moore** (Cornell University), *The logic of Thompson's groups and their relatives I*.
10:00 – 10:30 Social break.
10:30 – 11:30 Tutorial: **Rahim Moosa** (University of Waterloo), *Some model theory of automatic sets I*.

Afternoon

- 1:00 – 2:00 Special Session A1, B1, C1, D1, and E1. See pages 3–7.
2:00 – 2:30 Social break.
2:30 – 3:30 Invited Lecture: **Agnes Szendrei** (University of Colorado), *Minimal abelian varieties of algebras*.
3:30 – 4:00 Social break.
4:00 – 5:00 Gödel Lecture: **Matthew Foreman** (University of California, Irvine), *Gödel diffeomorphisms*.
5:00 – 5:30 Social break.

WEDNESDAY, June 23

Morning

- 9:00 – 10:00 Tutorial: **Justin Moore** (Cornell University), *The logic of Thompson's groups and their relatives II*.
10:00 – 10:30 Social break.
10:30 – 11:30 Tutorial: **Rahim Moosa** (University of Waterloo), *Some model theory of automatic sets II*.

Afternoon

- 1:00 – 2:00 Special Session A2, B2, C2, D2, and E2. See pages 3–7.
2:00 – 2:30 Social break.
2:30 – 3:30 Diversity and Inclusion Parallel Session A, B, and C. See page 3.
3:30 – 4:00 Social break.
4:00 – 5:00 Invited Lecture: **Johanna Franklin** (Hofstra University), *Applications of lowness and highness*.
5:00 – 5:30 Social break.
5:30 – 6:30 Diversity and Inclusion Breakout Discussions. See page 3.

THURSDAY, June 24

Morning

- 8:10 – 9:00 Contributed talks A. See pages 7–8.
9:00 – 10:00 Invited Lecture: **Julia Wolf** (University of Cambridge), *Arithmetic combinatorics through the model-theoretic lens*.
10:00 – 10:30 Social break.
10:30 – 11:30 Special Session A3, B3, C3, D3, and E3. See pages 3–7.

Afternoon

- 1:00 – 2:00 Invited Lecture: **Nam Trang** (University of North Texas), *Sealing of the universally Baire sets*.
2:30 – 4:05 Contributed talks B and C. See pages 7–8.

FRIDAY, June 25

Morning

- 9:00 – 10:00 Invited Lecture: **Mai Gehrke** (University of Côte d'Azur), *Stone duality in computer science: preserving joins at primes*.
10:00 – 10:30 Social break.

10:30 – 11:30 Invited Lecture: **Cameron Hill** (Wesleyan University), *Towards a characterization of \aleph_0 -categorical almost-sure theories*.

Afternoon

1:00 – 2:00 Special Session A4, B4, C4, D4, and E4. See pages 3–7.
2:00 – 2:30 Social break.
2:30 – 3:30 Invited Lecture: **Timothy McNicholl** (Iowa State University), *The computability theory of metric structures*.
3:30 – 4:00 Social break.
4:00 – 6:00 Special Session A5, B5 C5, D5, and E5. See pages 3–7.

SESSION ON DIVERSITY AND INCLUSION

Wednesday, June 23

2:30 – 3:30 A. Panel discussion on outreach and diversity in logic (moderated by Denis Hirschfeldt).
2:30 – 3:30 B. Promoting diversity early in an academic career (moderated by Carol Wood).
2:30 – 3:30 C. Reaching out to those who have been left out (moderated by Amanda Serenevy).
5:30 – 6:30 Break-out discussion for small groups

SPECIAL SESSIONS

A. Model Theory

(Organized by Deirdre Haskell and Erik Walsberg)

Session A1: Tuesday, June 22

1:00 – 2:00 **Kobi Peterzil** (University of Haifa), *Interpretable fields in expansions of valued fields*.

Session A2: Wednesday, June 23

1:00 – 2:00 **Zoé Chatzidakis** (ENS), *Groups definable in difference-differential fields*.

Session A3: Thursday, June 24

10:30 – 11:00 **Sylvy Anscombe** (Université de Paris), *Turing degrees of existential theories of fields*.

11:00 – 11:30 **Nigel Pynn-Coates** (The Ohio State University), *An Ax-Kochen/Ershov theorem for differential-henselian pre-H-fields.*

Session A4: Friday, June 25

1:00 – 1:30 **Alexi Block Gorman** (University of Illinois at Urbana-Champaign), *Pathological examples of structures with o-minimal open core.*

1:30 – 2:00 **Pablo Andujar Guerrero** (Purdue University), *Types, transversals and definable compactness in o-minimal structures.*

Session A5: Friday, June 25

4:00 – 4:30 **Alex Kruckman** (Wesleyan University), *Higher dimensional obstructions for star reductions.*

4:30 – 5:00 **Minh Chieu Tran** (University of Notre Dame), *Minimal and nearly minimal measure expansions in locally compact groups.*

5:00 – 6:00 **Bradd Hart** (McMaster University), *Undecidability in continuous logic.*

B. Topology meets Philosophy and Logic

(Organized by Tamar Lando, Sonja Smets, and Aybüke Özgün)

Session B1: Tuesday, June 22

1:00 – 2:00 **Nina Gierasimczuk** (Technical University of Denmark), *Learning and modal Logic: there and back again.*

Session B2: Wednesday, June 23

1:00 – 2:00 **Achille Varzi** (Columbia), *Open questions in mereotopology*

Session B3: Thursday, June 24

10:30 – 11:30 **Adam Bjorndahl** (Carnegie Mellon University), *Almost-logic.*

Session B4: Friday, June 25

1:00 – 2:00 **Aaron Cotnoir** (University of St Andrews), *Partial identity & mereotopology.*

Session B5: Friday, June 25

4:00 – 5:00 **Sophia Knight** (University of Minnesota Duluth), *Algebraic structures for distributed knowledge of potentially infinite groups of agents.*

5:00 – 6:00 **Geoffrey Hellman and Stewart Shapiro** (University of Minnesota and The Ohio State University), *Regions-based topology in geometry.*

C. Computability Theory

(Organized by Arno Pauly and Takayuki Kihara)

Session C1: Tuesday, June 22

1:00 – 2:00 **Vasco Brattka** (Universität der Bundeswehr München), *Duality in Weihrauch complexity.*

Session C2: Wednesday, June 23

1:00 – 1:30 **Manlio Valenti** (University of Udine), *The uniform strength of descending sequences.*

1:30 – 2:00 **Antonin Callard** (Université Paris-Saclay), *Descriptive complexity on represented spaces.*

Session C3: Thursday, June 24

10:30 – 11:30 **Margarita Korovina** (Ershov Institute of Informatics Systems), *Ksmt for solving non-linear constraints*

Session C4: Friday, June 25

1:00 – 2:00 **Elvira Mayordomo** (Universidad de Zaragoza), *Extending the reach of the point-to-set principle.*

Session C5: Friday, June 25

4:00 – 5:00 **Neil Lutz** (Iowa State University), *Algorithmically optimal outer measures.*

5:00 – 5:30 **Linda Westrick** (Penn State University), *Two results by relativization.*

5:30 – 6:00 **Matthew de Brecht** (Kyoto University), *Computable functors on the category of quasi-Polish spaces.*

D. Algebraic Logic

(Organized by Nikolaos Galatos and Wesley Holliday)

Session D1: Tuesday, June 22

1:00 – 1:30 **George Metcalfe** (University of Bern), *From ℓ -groups to ℓ -monoids, and back again.*

1:30 – 2:00 **Alessandra Palmigiano** (Vrije Universiteit), *From unified correspondence to parametric correspondence: preliminary considerations.*

Session D2: Wednesday, June 23

- 1:00 – 1:30 **Nick Bezhanishvili** (University of Amsterdam), *Profinite Heyting algebras and profinite completions.*
- 1:30 – 2:00 **Tommaso Moraschini** (University of Barcelona), *Profiniteness and spectra of Heyting algebras.*

Session D3: Thursday, June 24

- 10:30 – 11:00 **Rosalie Iemhoff** (Utrecht University), *Uniform interpolation in universal proof theory.*
- 11:00 – 11:30 **Marta Bilkova** (Czech Academy of Sciences), *Many-valued paraconsistent logics for uncertainty.*

Session D4: Friday, June 25

- 1:00 – 1:30 **Wesley Fussner** (CNRS and Université Côte d’Azur), *Quantum and substructural logics: a unifying approach.*
- 1:30 – 2:00 **Sara Ugolini** (Artificial Intelligence Research Institute), *MV-algebras reason about probability.*

Session D5: Friday, June 25

- 4:00 – 4:30 **Alasdair Urquhart** (University of Toronto), *Failure of Beth’s theorem in relevance logics.*
- 4:30 – 5:00 **Costas Tsinakis** (Vanderbilt University), *Strongly simple residuated lattices.*
- 5:00 – 5:30 **Peter Jipsen** (Chapman University), *Bunched implication algebras, Heyting algebras with a residuated unary operator and their Kripke semantics.*
- 5:30 – 6:00 **Luca Carai** (New Mexico State University), *Coalgebras for the powerset functor and Thomason duality.*

E. Set Theory

(Organized by James Cummings and Anush Tserunyan)

Session E1: Tuesday, June 22

- 1:00 – 1:30 **Noé de Rancourt** (Charles University), *A dichotomy for countable unions of smooth Borel equivalence relations.*
- 1:30 – 2:00 **Dakota Ihli** (University of Illinois at Urbana-Champaign), *What generic automorphisms of the random poset look like.*

Session E2: Wednesday, June 23

- 1:00 – 1:30 **Sandra Müller** (TU Wien), *The strength of determinacy when all sets are universally Baire.*
- 1:30 – 2:00 **Trevor Wilson** (Miami University), *Weak Vopěnka cardinals.*

Session E3: Thursday, June 24

10:30 – 11:00 **Yair Hayut** (The Hebrew University of Jerusalem), *The strength of filter completion.*

11:00 – 11:30 **Sarka Stejskalova** (Charles University), *Indestructibility of some compactness principles.*

Session E4: Friday, June 25

1:00 – 1:30 **Filippo Calderoni** (University of Illinois at Chicago), *Rotation equivalence and cocycle superrigidity for compact actions.*

1:30 – 2:00 **Assaf Shani** (Harvard University), *Actions of Polish wreath product groups.*

Session E5: Friday, June 25

4:00 – 4:30 **Konrad Wrobel** (Texas A&M University), *Orbit equivalence of wreath products.*

4:30 – 5:00 **Ronnie Chen** (University of Illinois at Urbana–Champaign), *Some results in descriptive locale theory.*

5:00 – 5:30 **Jeffrey Bergfalk** (Kurt Gödel Research Center), *Combinatorial principles of independent interest arising in recent research on higher derived limits and strong homology.*

5:30 – 6:00 **Gabe Goldberg** (University of California, Berkeley), *Predictions of the ultrapower axiom.*

CONTRIBUTED TALKS

THURSDAY, June 24

Session A, 8:10-9:00

8:10 – 8:30 **Joachim Mueller-Theys** (Independent researcher), *Similarity and equality.*

8:35 – 8:55 **Alexandr Bessonov** (Russian Academy of Sciences), *Gödel's incompleteness theorems from the perspective of a falsifiability predicate.*

Session B, 2:30-4:05

2:30 – 2:50 **Irfan Alam** (Louisiana State University), *Generalizing de Finetti's theorem using nonstandard methods.*

2:55 – 3:15 **Caleb Camrud***, **Isaac Goldbring**, and **Timothy McNicholl** (Iowa State University), *Diagram complexity of metric structures in continuous logic.*

- 3:20 – 3:40 **Caleb Camrud*** and **Ranpal Dosanjh** (Iowa State University),
 $[0, \infty]$ -indexed multimodal logics with philosophical applications.
- 3:45 – 4:05 **Landon D. C. Elkind** and **Richard Zach** (University of Alberta and
University of Calgary), *The genealogy of \vee .*

Session C, 2:30-3:40

- 2:30 – 2:50 **Wim Ruitenburg** (Marquette University), *Kolmogorov translations into
basic logic.*
- 2:55 – 3:15 **Russell Miller** (Queens College and CUNY Graduate Center), *Generic
algebraic fields.*
- 3:20 – 3:40 **Josiah Jacobsen-Grocott** (University of Wisconsin–Madison),
*Classification of classes of enumeration degrees of non-metrizable spaces by
topological separation axioms.*