

ASSOCIATION FOR SYMBOLIC LOGIC
2020 NORTH AMERICAN ANNUAL MEETING

University of California, Irvine
Irvine, California

March 25–28, 2020

Program Committee: Liron Cohen, James Cummings, Denis Hirschfeldt (chair), Phokion Kolaitis, Maryanthe Malliaris, Toby Meadows

Local Organizing Committee: Matthew D. Foreman, Isaac Goldbring (chair), Penelope Maddy, Toby Meadows, Kai F. Wehmeier, Martin Zeman

Please see <https://sites.uci.edu/asl2020/> for additional information.

All plenary and tutorial lectures will be held at the Social Science Lecture Hall (SSLH), room 100. All special session and contributed talks will be at SSLH 100; Social and Behavioral Sciences Gateway (SBSG), rooms 1321, 1511, and 1517; Social Science Plaza B (SSPB), room 1222; and Social Science Tower (SST), room 777. The welcoming reception will be held at 7:00 on Wednesday, March 25, at the Marriott Bayview Hotel. The banquet will be held at 7:30 on Thursday, March 26 at the Wedgewood University Club (on campus). There will be an excursion to Laguna Beach after the afternoon session on Friday, March 27, with shuttles leaving from campus.

WEDNESDAY, March 25

Morning

8:00 – 9:00 Registration and coffee.

9:00 – 9:10 Opening Remarks.

9:10 – 10:00 Invited Lecture: **H. Jerome Keisler** (University of Wisconsin–Madison),
Continuous model theory revisited.

10:00 – 10:30 Coffee.

10:30 – 12:20 Special Sessions A1, B1, D1, E1, F1, and G1. See pages ??–??.

Afternoon

- 2:00 – 2:50 Invited Lecture: **Jeremy Avigad** (Carnegie Mellon University), *The mechanization of mathematics*.
- 3:05 – 3:55 Tutorial: **Jouko Väänänen** (University of Helsinki), *A tutorial on the logic of dependence and independence, Part A*.
- 3:55 – 4:25 Coffee.
- 4:25 – 5:15 Tutorial: **Anna Zamansky** (University of Haifa), *Paraconsistent logics: a tutorial, Part A*.
- 5:30 – 6:20 Invited Lecture: **Rina Dechter** (University of California, Irvine), *Reasoning with deterministic and probabilistic graphical models*.
- 7:00 – 9:00 Welcoming Reception, Marriott Bayview Hotel.
- 8:00 – 11:00 ASL Council Meeting, Room SSPB 1222.

THURSDAY, March 26

Morning

- 8:30 – 9:00 Coffee.
- 9:00 – 9:50 Invited Lecture: **Benoit Monin** (University Paris-Est Créteil), *Reverse mathematics and the Ramsey's theorem for pairs*.
- 9:50 – 10:20 Coffee.
- 10:20 – 11:10 Invited Lecture: **Sandra Müller** (University of Vienna), *How to obtain lower bounds in set theory*.
- 11:25 – 12:15 Tutorial: **Jouko Väänänen** (University of Helsinki), *A tutorial on the logic of dependence and independence, Part B*.

Afternoon

- 2:15 – 3:05 Invited Lecture: **Omer Ben-Neria** (Hebrew University), *Approximating the set theoretic universe by canonical inner models*.
- 3:20 – 4:10 Tutorial: **Anna Zamansky** (University of Haifa), *Paraconsistent logics: a tutorial, Part B*.
- 4:10 – 4:40 Coffee.
- 4:40 – 5:30 Tutorial: **Hector Pastén** (PUC Chile), *Hilbert's tenth problem beyond the integers, Part A*.
- 5:45 – 6:25 Special Session A2. See pages ??–??.
- 5:45 – 7:05 Contributed Talks. See pages ??–??.
- 7:30 – 9:30 Banquet: Wedgewood University Club.

FRIDAY, March 27

Morning

- 8:30 – 9:00 Coffee.
9:00 – 10:50 Special Sessions A3, B2, C1, D2, and F2. See pages ??–??.
11:00 – 12:30 Special Sessions A4, C2, E2, F3, and G2. See pages ??–??.

Afternoon

- 2:10 – 4:00 Special Sessions B3, C3, D3, F4, and G3. See pages ??–??.
TBA – Shuttles to Laguna Beach.

SATURDAY, March 28

Morning

- 8:30 – 9:00 Coffee.
9:00 – 9:50 Tutorial: **Hector Pastén** (PUC Chile), *Hilbert’s tenth problem beyond the integers, Part B*.
9:50 – 10:20 Coffee.
10:20 – 11:10 Invited Lecture: **Juliette Kennedy** (University of Helsinki), *Tracking the profile of natural language in foundational practice*.
11:25 – 12:15 Invited Lecture: **Alexander Razborov** (University of Chicago and Steklov Mathematical Institute), *Continuous combinatorics*.

SPECIAL SESSIONS

A. Finite Model Theory and Descriptive Complexity

(Organized by Artem Chernikov, Neil Immerman, and Scott Weinstein)

Session A1: Wednesday, March 25 in room SBSG 1517.

- 10:30 – 11:10 **John T. Baldwin** (University of Illinois at Chicago), *Classes of finite structures that generate strongly minimal Steiner systems*.
11:30 – 12:10 **Siddharth Bhaskar** (University of Copenhagen), *Tameness in least fixed-point logic*.

Session A2: Thursday, March 26 in room SBSG 1321.

- 5:45 – 6:25 **Henry Towsner** (University of Pennsylvania), *Generalizing VC dimension to higher arity*.

Session A3: Friday, March 27 in room SBSG 1511.

9:00 – 9:40 **Cibele Freire** (Wellesley College), *On the complexity of the resilience problem.*

10:00 – 10:40 **Nadja Hempel** (University of California, Los Angeles), *A property of pseudo finite groups.*

Session A4: Friday, March 27 in room SBSG 1511.

11:00 – 11:40 **Cameron Hill** (Wesleyan University), *Towards a characterization of pseudo-finiteness.*

11:50 – 12:30 **Caroline Terry** (University of Chicago), *Speeds of hereditary properties and mutual algebraicity.*

B. Forcing and Ramsey Theory

(Organized by Dana Bartosova and Assaf Rinot)

Session B1: Wednesday, March 25 in room SSPB 1222.

10:30 – 11:10 **Todd Eisworth** (Ohio University), *Prismatic ideals.*

11:30 – 12:10 **David Fernández-Bretón** (Universidad Nacional Autónoma de México), *Finiteness classes inspired by Ramsey theory in choiceless set theory.*

Session B2: Friday, March 27 in room SSPB 1222.

9:00 – 9:40 **Natasha Dobrinen** (University of Denver), *Ramsey properties of Fraïssé structures*

10:00 – 10:40 **Sean Cox** (Virginia Commonwealth University), *Canary trees and definability of the nonstationary ideal.*

Session B3: Friday, March 27 in room SBSG 1511.

2:10 – 2:50 **Thomas Gilton** (University of California, Los Angeles), *Abraham-Rubin-Shelah open colorings and a large continuum.*

3:10 – 3:50 **Dima Sinapova** (University of Illinois at Chicago), *Iteration, reflection, and Prikry forcing.*

C. Logic and Graph Limits

(Organized by Cameron Freer and Rehana Patel)

Session C1: Friday, March 27 in room SBSG 1517.

9:00 – 9:40 **Henry Towsner** (University of Pennsylvania), *Randomness in ordered graph limits.*

10:00 – 10:40 **Nathanael Ackerman** (Harvard University), *Entropy of invariant measures.*

Session C2: Friday, March 27 in room SBSG 1517.

- 11:00 – 11:40 **Jaroslav Nešetřil** (Charles University), *Stability and modelings*.
11:50 – 12:30 **John T. Baldwin** (University of Illinois at Chicago), *Henkin models in the continuum*.

Session C3: Friday, March 27 in room SBSG 1517.

- 2:10 – 2:50 **Alexander Razborov*** and **Leonardo Coregiano** (University of Chicago and Steklov Mathematical Institute), *Semantic limits of dense combinatorial objects*.
3:10 – 3:50 **Persi Diaconis** (Stanford University), *Looking backward looking forward*.

D. Model Theory

(Organized by James Freitag and Özlem Beyarslan)

Session D1: Wednesday, March 25 in room SSLH 100.

- 10:30 – 10:50 **Hunter Chase** (University of Illinois at Chicago), *Query learning with random counterexamples*.
11:00 – 11:20 **Allen Gehret** (University of California, Los Angeles), *Expansions of structures*.
11:30 – 11:50 **Erik Walsberg** (University of California, Irvine), *Archimedean NIP structures*.
12:00 – 12:20 **Omer Mermelstein** (University of Wisconsin–Madison), *A new ω -stable set*.

Session D2: Friday, March 27 in room SBSG 1321.

- 9:00 – 9:20 **Elliot Kaplan** (University of Illinois at Urbana-Champaign), *H_T -fields*.
9:30 – 9:50 **Kyle Gannon** (University of Notre Dame), *Definable convolution and enveloping semigroups*.
10:00 – 10:20 **Alexi Block Gorman** (University of Illinois at Urbana-Champaign), *Pathologies and non-preservation results in o -minimality and structures with o -minimal open core*.
10:30 – 10:50 **Caroline Terry** (University of Chicago), *A stable arithmetic regularity lemma in finite abelian groups*.

Session D3: Friday, March 27 in room SBSG 1321.

- 2:10 – 2:30 **Joel Nagloo** (CUNY Bronx Community College), *Model theory and the Schwarzian differential equations*.
2:40 – 3:00 **Rémi Jaoui** (University of Notre Dame), *On the solutions of general algebraic planar vector fields*.
3:10 – 3:30 **Roland Walker** (University of Illinois at Chicago), *Distality rank*.
3:40 – 4:00 **Margaret Thomas** (Purdue University), *Definable topologies in o -minimal structures*.

E. Philosophy and Logic

(Organized by Toby Meadows)

Session E1: Wednesday, March 25 in room SBSG 1511.

10:30 – 11:10 **Gabriel Uzquiano** (University of Southern California), *Singletons of classes.*

11:30 – 12:10 **Rohan French** (University of California, Davis), *Metainferences.*

Session E2: Friday, March 27 in room SBSG 1321.

11:00 – 11:40 **Thomas Barrett** (University of California, Santa Barbara), *How trivial is the trivial strategy for excising structure?*

11:50 – 12:30 **Andrew Bacon** (University of Southern California), *Fundamentality: A logical framework.*

F. Proof Theory

(Organized by Valeria de Paiva, Elaine Pimentel, and Reuben Rowe)

Session F1: Wednesday, March 25 in room SST 777.

10:30 – 11:10 **Alexander Kurz** (Chapman University), *The logic of quantale enriched categories.*

11:30 – 12:10 **Joan Moschovakis** (Occidental College), *Constructive significance of the negative interpretation of classical analysis.*

Session F2: Friday, March 27 in room SST 777.

9:00 – 9:40 **Anupam Das** (University of Birmingham), *Recent developments in non-wellfounded proof theory.*

10:00 – 10:40 **Farzaneh Derakhshan** (Carnegie Mellon University), *Infinitary proof theory of first order linear logic with fixed points.*

Session F3: Friday, March 27 in room SST 777.

11:00 – 11:40 **Dominic Hughes** (University of California, Berkeley), *First-order proofs without syntax.*

11:50 – 12:30 **Sonia Marin** (University College London), *Intuitionistic modal proof theory: something old, something new.*

Session F4: Friday, March 27 in room SST 777.

2:10 – 2:50 **Yoni Zohar** (Stanford University), *Analyticity or cut-admissibility?*

3:10 – 3:50 **Marco Gaboardi** (Boston University), *l^p norms in a linear calculus.*

G. Reverse Mathematics and Computability Theory of Ramsey-Theoretic Principles

(Organized by Damir Dzhafarov and Ludovic Patey)

Session G1: Wednesday, March 25 in room SBSG 1321.

10:30 – 11:10 **Paul-Elliot Angles d’Auriac** (Université Claude Bernard Lyon), *The reverse mathematics of Hindman’s and related theorems.*

11:30 – 12:10 **Sarah Reitzes** (University of Chicago), *Reduction games, provability, and compactness.*

Session G2: Friday, March 27 in room SSPB 1222.

11:00 – 11:40 **Linda Brown Westrick** (Pennsylvania State University), *Pseudo-Borel codes in HYP.*

11:50 – 12:30 **Keita Yokoyama** (Japan Advanced Institute of Science and Technology), *Ramsey’s theorem and induction axioms.*

Session G3: Friday, March 27 in room SSPB 1222.

2:10 – 2:50 **Lu Liu** (Central South University), *Logic strength of tree theorem.*

3:10 – 3:50 **Marta Fiori Carones** (Università di Udine), *(Extra)ordinary equivalences with ADS.*

CONTRIBUTED TALKS

THURSDAY, March 26

Session I: Thursday, March 26 in room SBSG 1517.

5:45 – 6:05 **Samuel Braunfeld**, *Monadic stability and growth rates of ω -categorical structures.*

6:15 – 6:35 **Caleb Camrud**, *Results in computable model theory of continuous logic.*

6:45 – 7:05 **Marcos Mazari-Armida**, *Characterizing some classes of rings via superstability.*

Session II: Thursday, March 26 in room SSPB 1222.

5:45 – 6:05 **Sean C. Ebels-Duggan**, *Logicality, Zermelo’s theorem, and well-founded extensions.*

6:15 – 6:35 **Michał T. Godziszewski**, *Between the Model-Theoretic and the Axiomatic Method of Characterizing Mathematical Truth.*

6:45 – 7:05 **Michał T. Godziszewski***, **Victoria Gitman**, **Toby Meadows**, and **Kameryn J. Williams**, *On axioms for multiverses of set theory.*

Session III: Thursday, March 26 in room SST 777.

5:45 – 6:05 **Diego A. Rojas**, *Effective notions of weak convergence of measures on the real line.*

6:15 – 6:35 **Dan E. Willard**, *How the law of excluded middle pertains to the second incompleteness theorem and its boundary-case exceptions.*

6:45 – 7:05 **Joachim Mueller-Theys**, *The idea of named logic.*