

ASSOCIATION FOR SYMBOLIC LOGIC
2017 NORTH AMERICAN ANNUAL MEETING

Boise State University
Boise, ID

March 20-23, 2017

Program Committee: L. Babinkostova, G. Cherlin, B. Csima, A. Kolokolova, J. Moore (Chair).

Local Organizing Committee: L. Babinkostova, A. Cortens, S. Coskey, S. Crowley, R. Holmes, A. Jackson, M. Scheepers (Chair).

Please see asl2017.boisestate.edu for additional information.

The conference will take place primarily in the Education Building (EDUC). Registration, coffee, and book exhibits will be in the lobby. **All plenary and tutorial lectures will be held in EDUC 112.** All special session will be in EDUC 109, EDUC 110, and EDUC 112. **Contributed talks will be in the Multi-Purpose Classroom Building (MPCB) in rooms MPCB 101, 106, 108, and 118.** The welcoming reception will be held at 7:30 pm on Monday at the Stueckle Sky Center, in The Loft (Room). The conference banquet will be held on 7:30 pm at the Stueckle Sky Center, in the Skyline room.

MONDAY, March 20

Morning

- 8:00 – 9:00 Registration, Coffee and Snacks.
- 9:00 – 9:10 Opening Remarks
- 9:10 – 10:10 Invited Lecture: **Matthias Aschenbrenner** (UCLA), *The logical complexity of finitely generated commutative rings.*
- 10:10 – 10:30 Registration, Coffee and Snacks.
- 10:30 – 12:00 Special Sessions B1, C1, and E1. See pages 3–5.

Afternoon

- 2:00 – 3:00 Invited Lecture: **Peter Koellner** (Harvard), *Two futures: pattern and chaos.*
- 3:00 – 3:30 Coffee and Snacks.
- 3:30 – 4:30 Tutorial 1: **Valentina Harizanov** (George Washington), *Computable structure theory.*
- 4:40 – 5:40 Invited Lecture: **Clinton Conley** (Carnegie Mellon), *Følner tilings via matchings.*

- 7:30 – 10:00 Welcoming Reception, Stueckle Sky Center, in The Loft (Room).

TUESDAY, March 21

Morning

- 8:30 – 9:00 Coffee and Snacks.
- 9:00 – 10:00 Invited Lecture: **Assaf Rinot** (Bar-Ilan), *The current state of the Souslin problem.*
- 10:00 – 10:30 Coffee and Snacks.
- 10:30 – 12:00 Special Sessions A1, C2, and D1. See pages 3–5.

Afternoon

- 2:00 – 3:00 Tutorial 2: **Valentina Harizanov** (George Washington), *Computable structure theory.*
- 3:10 – 4:10 Gödel Lecture: **Charles Parsons** (Harvard), *Gödel and the universe of sets.*
- 4:10 – 4:40 Coffee and Snacks.
- 4:40 – 6:15 Contributed Talks in MPCB. See page 6.
- 7:30 – 10:00 Conference banquet at the Stueckle Sky Center, in the Skyline room.

WEDNESDAY, March 22

Morning

- 8:30 – 9:00 Coffee and Snacks.
- 9:00 – 10:00 Invited Lecture: **Caroline Terry** (University of Maryland), *Dividing lines and jumps in growth rates of hereditary properties.*
- 10:00 – 10:30 Coffee and Snacks.
- 10:30 – 12:00 Special Sessions B2, C3, and E2. See pages 3–5.

Afternoon

- 2:00 – 3:00 Invited Lecture: **Monika Seisenberger** (Swansea University), *Application of logic in railway verification.*
- 3:10 – 4:10 Tutorial 3: **Valentina Harizanov** (George Washington), *Computable structure theory.*
- 4:10 – 4:40 Coffee and Snacks.
- 4:40 – 6:10 Special Sessions A2 and D2. See pages 3–5.

THURSDAY, March 23

Morning

- 8:30 – 9:00 Coffee and Snacks.
9:00 – 10:00 Invited Lecture: **Iskander Kalimullin** (Kazan Federal University),
Categoricity questions in computable model theory.
10:00 – 10:30 Coffee and Snacks.
10:30 – 12:00 Special Sessions A3, D3, and E3. See pages 3–5.

SPECIAL SESSIONS

A. Computable Structures

(Organized by Denis Hirschfeldt and Russell Miller)

Session A1: Tuesday, March 21 in EDUC 109

- 10:30 – 11:10 **Matthew Harrison-Trainor** (Berkeley), *Some new results on characterizing structures using infinitary formulas.*
11:20 – 12:00 **Jennifer Chubb** (University of San Francisco), *Complexity of orderability of groups.*

Session A2: Wednesday, March 22 in EDUC 109

- 4:40 – 5:20 **Alexander Melnikov** (Massey University), *On a problem of Mal'cev.*
5:30 – 6:10 **Reed Solomon** (University of Connecticut, Storrs), *Reverse mathematics, effectiveness and the dual Ramsey theorem.*

Session A3: Thursday, March 23 in EDUC 109

- 10:30 – 11:10 **Antonio Montalban** (University of California, Berkeley), *Computability theory on a cone.*
11:20 – 12:00 **Noah Schweber** (University of Wisconsin, Madison), *Uniformly computing ordinals.*

B. Computer-Aided Proofs

(Organized by Sam Buss and Vijay Ganesh)

Session B1: Monday, March 20 in EDUC 109

10:30 – 11:10 **Oliver Kullmann** (Swansea), *Solving mathematical problems with SAT*.

11:20 – 12:00 **Nikolaj Bjørner** (Microsoft Research), *From models to proofs and back in automated theorem proving*.

Session B2: Wednesday, March 22 in EDUC 109

10:30 – 11:10 **Georges Gonthier** (Inria), *Big proofs, little math*.

11:20 – 12:00 **Floris van Doorn** (Carnegie Mellon University), *Eilenberg-MacLane spaces in homotopy type theory*.

C. Continuous Model Theory

(Organized by Bradd Hart and C. Ward Henson)

Session C1: Monday, March 20 in EDUC 110

10:30 – 11:10 **Ward Henson** (University of Illinois at Urbana-Champaign), *Introduction to continuous model theory*.

11:20 – 12:00 **Isaac Goldbring** (University of California, Irvine), *The absolute Vaught conjecture and randomizations*.

Session C2: Tuesday, March 21 in EDUC 110

10:30 – 11:10 **Bradd Hart** (McMaster University), *Model theory of operator algebras*.

11:20 – 12:00 **Alessandro Vignati** (York University), *Fraïssé theory for C^* -algebras*.

Session C3: Wednesday, March 22 in EDUC 110

10:30 – 11:10 **Henry Towsner** (University of Pennsylvania), *What do ultraproducts remember about the original models?*

11:20 – 12:00 **José Iovino** (University of Texas, San Antonio), *Metastability and model theory*.

D. Proofs in Mathematical Practice

(Organized by Kenneth Easwaran and Catarina Dutilh Novaes)

Session D1: Tuesday, March 21 in EDUC 112

10:30 – 11:10 **Moon Duchin** (Tufts University), *Failure modes for proofs.*

11:20 – 12:00 **Marianna Antonutti Marfori** (LMU München), *De re and de dicto knowledge in mathematics.*

Session D2: Wednesday, March 22 in EDUC 112

4:40 – 5:20 **Madeline Muntersbjorn** (University of Toledo), *Symbols, certainty, and expressive economies.*

5:30 – 6:10 **Andrew Aberdein** (Florida Institute of Technology), *The dual nature of proof.*

Session D3: Thursday, March 23 in EDUC 110

10:30 – 11:10 **Alexander Paseau** (Oxford), *Knowledge of arithmetic without proof.*

11:20 – 12:00 **Fenner Stanley Tanswell** (Oxford), *The epistemic significance of proving.*

E. Set Theory and its Applications to Analysis and Topology

(Organized by Michael Hrusak and Marion Scheepers)

Session E1: Monday, March 20 in EDUC 112

10:30 – 11:10 **Lynne Yengulalp** (University of Dayton), *Strategies in topological games and completeness.*

11:20 – 12:00 **Oswaldo Guzmán** (UNAM), *Linearly ordered splitting families.*

Session E2: Wednesday, March 22 in EDUC 112

10:30 – 11:10 **Ondřej Zindulka** (Czech Technical University), *Strong measure zero and the like in Polish groups.*

11:20 – 12:00 **Lyubomyr Zdomskyy** (Kurt Gödel Research Center), *Forcing and selection principles.*

Session E3: Thursday, March 23 in EDUC 112

10:30 – 11:10 **Spencer Unger** (UCLA), *Borel circle squaring.*

11:20 – 12:00 **Natasha Dobrinen** (University of Denver), *The universal triangle-free graph has finite Ramsey degrees.*

CONTRIBUTED TALKS

Multi-Purpose Classroom Building (MPCB)

Session I: Tuesday, March 21 in MPCB 101

- 4:40 – 5:00 **Ori Lahav, Anna Zamansky, and Yoni Zohar,*** *Gen2sat: a SAT-based tool for pure analytic Gentzen calculi.*
- 5:10 – 5:30 **Arnon Avron and Yoni Zohar*** *Non-deterministic matrices in action: expansions, refinements, and rexpansions.*
- 5:40 – 6:00 **Arnon Avron and Liron Cohen*** *A minimal predicative framework for formalizing mathematics.*

Session II: Tuesday, March 21 in MPCB 106

- 4:40 – 5:00 **M. Randall Holmes** *New Foundations is consistent.*
- 5:10 – 5:30 **Ronald Fuller** *Transfinite objective mathematical truth.*
- 5:40 – 6:00 **Joachim Mueller-Theys** *General import of well-order & co.*

Session III: Tuesday, March 21 in MPCB 108

- 4:40 – 5:00 **Sebastien Vasey** *Saturation and solvability in abstract elementary classes with amalgamation.*
- 5:10 – 5:30 **William Simmons** *Proof mining effective bounds in differential polynomial rings.*

Session IV: Tuesday, March 21 in MPCB 118

- 4:40 – 5:00 **Daniel Hathaway** *The Halpern-Läuchli Theorem at a measurable cardinal.*
- 5:10 – 5:30 **Francis Adams** *Combinatorics of Borel graphs on Polish metric spaces.*