

ASSOCIATION FOR SYMBOLIC LOGIC
2016 NORTH AMERICAN ANNUAL MEETING

University of Connecticut
Storrs, CT

May 23-26, 2016

Program Committee: P. Blanchette (Chair), D. Dzhafarov, R. Lubarsky, A. Montalban, J. Moore, C. Wood.

Local Organizing Committee: Jc Beall, D. Dzhafarov, D. Ripley, M. Rossberg, R. Solomon (Chair)

Please see asl2016.logic.uconn.edu for additional information.

All plenary lectures will be held in Austin 108. Registration, coffee, and book exhibits will be in Austin 102. The welcoming reception will be held at 6:30 pm on Monday, May 23 in the Wilbur Cross Building, South Reading Room (across the road from the Austin Building). The conference banquet will be held on Tuesday, May 24 at 7:00 pm at the Nathan Hale Inn.

MONDAY, MAY 23

Morning, Austin 108

- 9:00 – 9:45 Registration, Coffee and Snacks (Austin 102).
9:45 – 10:00 Opening Remarks
10:00 – 11:00 Invited Lecture: **Michael Rathjen** (Leeds), *Relating strong type theories to set theories*.
11:15 – 12:15 Tutorial: **Denis Hirschfeldt** (Chicago), *The computability theory and reverse mathematics of combinatorial principles, Part A*.

Afternoon, Austin 108

- 2:00 – 3:00 Invited Lecture: **Magdalena Kaufmann** (Connecticut), *Models for natural language meaning*.
3:15 – 4:15 Tutorial: **Maryanthe Malliaris** (Chicago), *Model theoretic perspectives on comparing complexity, Part A*.
4:45 – 6:20 Contributed Talks: Sessions A, B, C. See pages 6-8.
6:30 – 9:00 Welcoming Reception, Wilbur Cross Building, South Reading Room.
8:30 – 11:00 ASL Council Meeting, Oak Hall 408.

TUESDAY, MAY 24

Morning, Austin 108

- 8:00 – 9:00 Coffee and Snacks (Austin 102).
9:00 – 10:00 Invited Lecture: **Itay Neeman** (UCLA), *Forcing iterations*.
10:15 – 11:15 Tutorial: **Denis Hirschfeldt** (Chicago), *The computability theory and reverse mathematics of combinatorial principles, Part B*.
11:30 – 12:30 Tutorial: **Maryanthe Malliaris** (Chicago), *Model theoretic perspectives on comparing complexity, Part B*.

Afternoon

- 2:00 – 3:00 Invited Lecture: **Zoe Chatzidakis** (Ecole Normale Supérieure), *Groups definable in existentially closed difference fields – a survey*. Austin 108
3:15 – 5:15 Special Sessions: Model Theory, Computability, Set Theory, History & Philosophy of Logic. See Pages 3-6.
5:25 – 6:35 Contributed Talks: Sessions D, E, F. See pages 6-8.
7:00 – 10:00 Banquet, Nathan Hale Inn

WEDNESDAY, MAY 25

Morning, Austin 108

- 8:00 – 9:00 Coffee and Snacks (Austin 102).
9:00 – 10:00 Invited Lecture: **Karen Lange** (Wellesley), *Integer parts and lengths of developments*.
10:15 – 12:15 Special Sessions: Model Theory, Computability, Set Theory, History & Philosophy of Logic. See Pages 3-6.

Afternoon

- 2:00 – 3:00 Tutorial: **Denis Hirschfeldt** (Chicago), *The computability theory and reverse mathematics of combinatorial principles, Part C*. Austin 105
– Tutorial: **Maryanthe Malliaris** (Chicago), *Model theoretic perspectives on comparing complexity, Part C*. Austin 110
3:15 – 4:15 Invited Lecture: **Stewart Shapiro** (Ohio State), *Potential Infinity: a modal account*. Austin 108
4:45 – 6:20 Contributed Talks: Sessions G, H, I. See pages 6-8.

THURSDAY, MAY 26

Morning

- 8:00 – 9:00 Coffee and Snacks (Austin 102).
9:00 – 10:00 Retiring Presidential Address: **Alasdair Urquhart** (Toronto), *Russell and Gödel*. Austin 108
10:15 – 12:15 Special Sessions: Model Theory, Computability, Set Theory, History & Philosophy of Logic. See Pages 3-6.

Special Session I: Model Theory

(Organized by Cameron Hill and Joel Nagloo)

Session IA, TUESDAY, MAY 24

Austin 105

- 3:15 – 3:40 **Jana Marikova** (Western Illinois), *Quantifier elimination in o-minimal fields with o-minimal residue fields*.
3:45 – 4:10 **Will Johnson** (UC Berkeley), *When do imaginary sorts define infinity?*
4:15 – 4:40 **Will Boney** (Harvard), *Searching for the right logic for AECs*.
4:45 – 5:10 **Dragan Mašulović** (Novi Sad) and **Lynn Scow*** (Vassar), *Categorical constructions and the Ramsey property*.

Session IB, WEDNESDAY, MAY 25

Austin 105

- 10:15 – 10:40 **Alice Medvedev** (CUNY), *Minimal groups in difference fields living on high-dimensional algebraic groups*.
10:45 – 11:10 **Silvain Rideau** (UC Berkeley), *Imaginaries in valued fields with operators*.
11:15 – 11:40 **Vera Koponen** (Uppsala), *Simple homogeneous structures*.
11:45 – 12:10 **Clifton Ealy** (Western Illinois), *Residue Field Domination*.

Session IC, THURSDAY, MAY 26

Austin 105

- 10:15 – 10:40 **Erin Caulfield** (Illinois-Urbana), *On expansions of the real field by complex subgroups*.
10:45 – 11:10 **Chris Laskowski, Richard Rast, and Douglas Ulrich*** (Maryland - College Park), *A new notion of cardinality for countable first order theories*.
11:15 – 11:40 **Vincent Guingona** (Wesleyan), *Computing VC-density*.
11:45 – 12:10 **Rehana Patel** (Olin), *Stable hypergraph regularity*.

Special Session II: Computability Theory
(Organized by Barbara Csima and Mariya Soskova)

Session IIA, TUESDAY, MAY 24

Austin 110

- 3:15 – 3:40 **Peter Cholak** (Notre Dame), *Rado's path decomposition.*
3:45 – 4:10 **David Belanger** (NUS), *A more uniform Friedberg-Muchnik theorem.*
4:15 – 4:40 **Rutger Kuypers** (Wisconsin-Madison), *Destroying randomness and genericity using symmetric differences.*
4:45 – 5:10 **Keng Meng Ng*** and **Maxim Zubkov** (Nanyang Technological University), *Strongly nontrivial automorphisms of computable linear orderings.*

Session IIB, WEDNESDAY, MAY 25

Austin 110

- 10:15 – 10:40 **Uri Andrews**, **Steffen Lempp***, **Joseph S. Miller**,
(Wisconsin-Madison); **Hristo A. Ganchev**, **Rutger Kuypers**,
Alexandra A. Soskova, **Mariya I. Soskova** (Sofia); On cototality and
the skip operator in the enumeration degrees.
10:45 – 11:10 **Stephen Flood** (Bridgewater State), *Reverse mathematics and matchings
of countable graphs.*
11:15 – 11:40 **Eric Astor***, **Damir Dzhafarov**, **Reed Solomon**, and **Jacob Suggs**
(Connecticut), The uniform content of ADS.
11:45 – 12:10 **Douglas Cenzer** and **Chris Porter*** (Florida), Random members of a
 Π_1^0 class.

Session IIC, THURSDAY, MAY 26

Austin 110

- 10:15 – 10:40 **Valentina Harizanov** (George Washington), *Turing degree spectra of
structures*
10:45 – 11:10 **Jonny Stephenson*** and **Barbara Csima** (Waterloo), Degrees of
isomorphisms between structures of finite computable dimension
11:15 – 11:40 **Joe Mileti** (Grinnell), *A rainbow analogue to Rado's homogeneous
equation theorem*
11:45 – 12:10 **Ekaterina Fokina** (Vienna University of Technology), *Index sets for
 n -decidable structures categorical relative to m -decidable presentations*

Special Session III: Set Theory
(Organized by Clinton Conley and Grigor Sargsyan)

Session IIIA, TUESDAY, MAY 24

Austin 103

- 3:15 – 3:40 **Diana Ojeda-Aristizabal** (Toronto), *Topological partition relations for ordinals below ω^ω .*
- 3:45 – 4:10 **Sean Cox** (VCU), *Layered posets, weak compactness, and Kunen’s universal collapse.*
- 4:15 – 4:40 **Sherwood Hachtman** (Illinois-Chicago), *Forcing analytic determinacy.*
- 4:45 – 5:10 **Trevor Wilson** (Miami (Ohio)), *The consistency strength of two-step generic absoluteness for the pointclass $\exists^{\mathbb{R}}(\mathbf{\Pi}_1^2)^{\text{uB}}$.*

Session IIIB, WEDNESDAY, MAY 25

Austin 103

- 10:15 – 10:40 **Scott Cramer** (Rutgers), *Tree representations from very large cardinals.*
- 10:45 – 11:10 **Dima Sinapova** (Illinois-Chicago), *The tree property at successors of a singular cardinal.*
- 11:15 – 11:40 **Spencer Unger** (UCLA), *Successive failures of weak square together with the failure of SCH.*
- 11:45 – 12:10 **Nam Trang** (UC Irvine), *Large cardinals, determinacy, and forcing axioms.*

Session IIIC, THURSDAY, MAY 26

Austin 103

- 10:15 – 10:40 **Burak Kaya** (Rutgers), *The complexity of the topological conjugacy problem for Toeplitz subshifts.*
- 10:45 – 11:10 **Alessandro Vignati** (York), *Forcing axioms and automorphisms of C^* -algebras.*
- 11:15 – 11:40 **Su Gao, Steve Jackson***, **Ed Krohne**, and **Brandon Seward** (North Texas), *Tilings and colorings for Abelian group actions.*
- 11:45 – 12:10 **Peter Burton** (Cal Tech), *Furstenberg entropy and weak equivalence.*

Special Session IV: History & Philosophy of Logic.
Dedicated to the memory of Aldo Antonelli

(Organized by Gillian Russell and Richard Zach)

Session IV A, TUESDAY, MAY 24

Austin 163

- 3:15 – 4:10 **Walter Dean** and **Sean Walsh*** (UC Irvine), *The prehistory of the subsystems of second-order arithmetic.*
4:15 – 5:10 **David Ripley** (Connecticut), *Toward a naive type theory.*

Session IV B, WEDNESDAY, MAY 25

Austin 163

- 10:15 – 11:10 **Zeynep Soysal** (Harvard), *Unfolding the content of the concept of set*
11:15 – 12:10 **Teresa Kouri** (Ohio State), *Carnap on translations*

Session IV C, THURSDAY, MAY 26

Austin 163

- 10:15 – 11:10 **Gil Sagi** (LMU Munich), *Invariance criteria: terms and constraints.*
11:15 – 12:10 **Daniel Nolan** (ANU), *Reflections on Routley's ultralogic program.*

CONTRIBUTED TALKS

Session A, MONDAY, MAY 23

Austin 163

- 4:45 – 5:05 **Robert Lubarsky**, *Feedback computability.*
5:10 – 5:30 **William Calhoun**, *Strongly nontrivial minimal Turing degrees.*
5:35 – 5:55 **James Barnes**, *The Σ_2 theories of the arithmetic and hyperarithmetic degrees as upper semi-lattices are decidable.*

Session B, MONDAY, MAY 23

Austin 103

- 4:45 – 5:05 **Matthew Harrison-Trainor**, *Scott ranks of models of a theory.*
5:10 – 5:30 **Takayuki Kihara**, *Computability-theoretic methods in descriptive set theory.*
5:35 – 5:55 **Achilles A. Beros*** and **Konstantinos A. Beros** , Index sets of universal codes.
6:00 – 6:20 **Alberto Marcone**, *Isometry and isometric embeddability between ultrametric Polish spaces.*

Session C, MONDAY, MAY 23

Austin 202

- 4:45 – 5:05 **Bjorn Kjos-Hanssen**, *Obligations in a context: simplified semantics for the deontic logic of contrary-to-duties.*
5:10 – 5:30 **Stefan Kaufmann**, *Probabilities, conditionals, and conditionalization.*
5:35 – 5:55 **Matthias Jenny**, *The conditional logic of Turing reducibility.*

Session D, TUESDAY, MAY 24

Austin 103

- 5:25 – 5:45 **Ulrich Kohlenbach**, *Proof-theoretic metatheorems for metric structures and their relation to positive bounded logic.*
5:50 – 6:10 **Richard Zach**, *General natural deduction rules and general lambda calculi.*
6:15 – 6:35 **Dan Willard**, *A new novel type of self-justifying axiom system.*

Session E, TUESDAY, MAY 24

Austin 202

- 5:25 – 5:45 **Travis Nell*** and **Philipp Hieronymi** , Distal and non-distal pairs.
5:50 – 6:10 **Sebastien Vasey**, *A proof of Shelah's eventual categoricity conjecture in universal classes.*
6:15 – 6:35 **Jake Pardo**, *Gambling against some odds.*

Session F, TUESDAY, MAY 24

Austin 163

- 5:25 – 5:45 **Fabio Lampert**, *Tableau methods for two-dimensional modal logic.*
5:50 – 6:10 **Jordan Stein**, *Two-dimensional semantics without the contingent a priori.*
6:15 – 6:35 **Joachim Mueller-Theys**, *On the representation of theories in theories.*

Session G, WEDNESDAY, MAY 25

Austin 103

- 4:45 – 5:05 **Theodore Slaman** and **Keita Yokoyama*** , On the first-order strength of Ramsey's theorem for pairs and finitely many colors.
- 5:10 – 5:30 **Noah Hughes**, *Reverse mathematics and marriage problems with finitely many solutions.*
- 5:35 – 5:55 **Jeffrey Hirst**, *Reverse mathematics of matroids: preliminary results.*
- 6:00 – 6:20 **Iian Smythe**, *Towards a selective Gowers dichotomy.*

Session H, WEDNESDAY, MAY 25

Austin 202

- 4:45 – 5:05 **Athar Abdul-Quader**, *Enayat models.*
- 5:10 – 5:30 **Francis Adams**, *Weak Borel chromatic number and dominating reals.*
- 5:35 – 5:55 **Konstantinos A. Beros**, *Normal numbers and a completeness result for difference sets.*
- 6:00 – 6:20 **Achilles Beros**, **Mushfeq Khan***, and **Bjorn Kjos-Hanssen** ,
Effectively bi-immune sets and recursively bounded diagonally
non-recursive functions.

Session I, WEDNESDAY, MAY 25

Austin 163

- 4:45 – 5:05 **Dirk Schlimm**, *Frege's Begriffsschrift notation: design principles and trade-offs.*
- 5:10 – 5:30 **Francine Abeles**, *On the Development of Peirce's matrix formulation of the algebra of relations, 1870-1882: The influence of Clifford and Sylvester.*
- 5:35 – 5:55 **Samara Burns**, *Analyticity and logicality in semantic constraints.*
- 6:00 – 6:20 **Damon Scott**, *A twenty-minute glimpse of well-structured mathematical logic.*