ASSOCIATION FOR SYMBOLIC LOGIC
2013 NORTH AMERICAN ANNUAL MEETING
University of Waterloo
Waterloo, ON
May 8 – May 11, 2013

Program Committee: S. Awodey, I. Farah (Chair), A. Kanamori, R. Moosa, J. Reimann, P. Scott.
Local Organizing Committee: S. Ben-David, B. Csima (Chair), D. DeVidi, R. Moosa, and R. Willard.
Please see http://www.math.uwaterloo.ca/~asl2013/ for additional information.

All activities for the meeting will take place on the campus of the University of Waterloo. The plenary lectures will be in the lecture hall QNC 1102/1103 of the Quantum–Nano building (QNC) and special sessions will be in Math & Computer Building (MC) and QNC. Registration, book exhibits, and morning coffee and refreshments will be in the QNC 1501. The welcome reception will be held on Wednesday May 8 at 6:30pm in the QNC atrium.

WEDNESDAY, MAY 8
Morning, QNC

9:30 – 10:10 Registration, coffee and snacks (QNC 1501).
10:20 – 11:00 Invited Lecture: Vladimir Voevodsky (IAS), Univalent Foundations and Set Theory.

Afternoon

2:00 – 3:30 Special Sessions: Univalent Foundations, session A (page 7); Computable Structure/Model Theory, session A (page 4); Set Theory, session A (page 3); Model Theory, session A (page 5).
3:30 – 4:00 Coffee, MC 5158.
4:00 – 5:30 Special Sessions: Set Theory, session B (page 3); Model Theory, session B (page 5); Computable Structure/Model Theory, session B (page 4); Differential Categories and Differential Lambda Calculi, session A (page 6).
5:40 – 6:25 Contributed Talks: sessions A, B, and C (page 8).
6:30 – 8:00 Welcome Reception in the QNC atrium.
THURSDAY, MAY 9
Morning, QNC

8:30 – 9:00 Coffee and Snacks, QNC 1501.
9:00 – 9:50 Invited Lecture: Rick Blute (University of Ottawa), *The syntax and semantics of differentiation: differential linear logic and lambda-calculus.*
10:20 – 11:10 Invited Lecture: Frank Wagner (Université de Lyon), *Reducts and Reducibility.*

Afternoon

2:00 – 3:30 Special Sessions: Univalent Foundations, session B (page 7); Set Theory, session C (page 3); Computable Structure/Model Theory, session C (page 4); Applications of Logic to Operator Algebras, session A (page 6).
3:30 – 4:00 Coffee, MC 5158.
4:00 – 5:30 Special Sessions: Applications of Logic to Operator Algebras, session B (page 6; Differential Categories and Differential Lambda Calculi, session B (page 6); Computable Structure/Model Theory, session D (page 4).
5:40 – 6:25 Special session Applications of Logic to Operator Algebras, session C (page 6); Contributed Talks: sessions D, E, and F (page 8).

FRIDAY, MAY 10
Morning, QNC

8:30 – 9:00 Coffee and Snacks, QNC 1501.
11:20 – 12:10 Invited Lecture: Matthias Aschenbrenner (UCLA), *Definable extension theorems in o-minimal structures.*

Afternoon

2:00 – 3:30 Special Sessions: Univalent Foundations, session C (page 7); Computable Structure/Model Theory, session E (page 5); Model Theory, session C (page 5).
3:30 – 4:00 Coffee, QNC 1501.
4:00 – 4:50 Invited Lecture: Matteo Viale (University of Torino), *Generic absoluteness for models of strong forcing axioms.*
5:00 – 5:45 Contributed Talks: sessions G, H, I and J (page 9).

SATURDAY, MAY 11
Morning, QNC

8:30 – 9:00 Coffee and Snacks, QNC 1501.
9:00 – 9:50 Invited Lecture: Colin McLarty (Case Western Reserve), Proving Fermat’s Last Theorem in PA: situation and prospects.
9:50 – 11:20 Special Sessions: Model Theory, session D (page 5); Set Theory, session D (page 4); Differential Categories and Differential Lambda Calculi, session C (page 7).

Special Session on Set Theory
(Organized by James Cummings and Menachem Magidor)

Session A, WEDNESDAY, MAY 8
Room MC 1056
2:00 – 2:40 Anush Tserunyan (UCLA), Generic finite generators.
2:50 – 3:30 Marcin Sabok (Polish Academy of Sciences), Ergodicity and canonization.

Session B, WEDNESDAY, MAY 8
Room MC 2065
4:00 – 4:40 Laura Fontanella (KGRC), Strong combinatorial properties at small cardinals.
4:50 – 5:30 Sean Cox (Virginia Commonwealth University), Some consistency results about saturated ideals.

Session C, THURSDAY, MAY 9
Room MC 2017
2:00 – 2:40 Natasha Dobrinen (University of Denver), Initial structures in the Tukey types of non-p-points.
2:50 – 3:30 Dilip Raghavan (NUS), Combinatorial dichotomies and cardinal invariants.
Session D, SATURDAY, MAY 11  
Room QNC 1506  
9:50 – 10:30 Miguel Angel Mota (University of Toronto), *On a question of Abraham and Cummings.*  
10:40 – 11:20 John Krueger (UNT), *Forcing with adequate sets of models as side conditions.*

Special Session on Computable Structure/Model Theory  
(Organized by Julia Knight and Antonio Montalban)

Session A, WEDNESDAY, MAY 8  
Room MC 4040  
2:00 – 2:40 Richard Shore (Cornell), *Theories, structures and morphisms: leveling the playing field.*  
2:50 – 3:30 Denis Hirschfeldt (U Chicago), *Leftmost-path Approximable Isomorphisms.*

Session B, WEDNESDAY, MAY 8  
Room MC 2066  
4:00 – 4:40 Alexander Melnikov (U Wellington), *Applications of computable model theory to computable analysis*  
4:50 – 5:30 Dan Turetsky (KGRC), *Uncountable linear orders and Watnik’s theorem.*

Session C, THURSDAY, MAY 9  
Room MC 4059  
2:00 – 2:40 Alexandra Shlapentokh (East Carolina University), *Some Questions of Definability and Decidability over Infinite Algebraic Extensions of Q.*  
2:50 – 3:30 Karen Lange (Wellesley College), *An algebraic characterization of recursively saturated real closed fields.*

Session D, THURSDAY, MAY 9  
Room MC 4059  
4:00 – 4:40 Russell Miller (CUNY), *Constraint sets in differential fields.*  
4:50 – 5:30 Iskander Kalimullin (Kazan Federal University), *Degree Spectra and Ideals of Degrees.*
Session E, FRIDAY, MAY 10
Room QNC 1507

2:00 – 2:40 **Sy-David Friedman** (KGRC), *The completeness of isomorphism.*
2:50 – 3:30 **Steffen Lempp** (UW Madison), *Spectra of computable models of computable binary strongly minimal theories.*

Special Session on Model Theory
(Organized by Rahim Moosa and Dave Marker)

Session A, WEDNESDAY, MAY 8
Room MC 4042

2:00 – 2:40 **James Freitag** (UC Berkeley), *Connected superstable groups.*
2:50 – 3:30 **Joel Nagloo** (University of Leeds), *More on geometric triviality of the second Painlevé equation.*

Session B, WEDNESDAY, MAY 8
Room MC 4042

4:00 – 4:40 **Omar Leon Sanchez** (Waterloo), *The model-companion of partial differential fields with an automorphism.*

Session C, FRIDAY, MAY 10
Room QNC 2501

2:00 – 2:40 **Philipp Hieronymi**, (UIUC), *Coincidence of dimensions in expansions of the real field.*
2:50 – 3:30 **Maryanthe Malliaris** (U Chicago), *Ultrapowers of graphs: Theorems, examples, questions.*

Session D, SATURDAY, MAY 11
Room QNC 1502

9:50 – 10:30 **Alex Rennet** (U Toronto), *The first-order $\mathcal{L}$-theory of o-minimality.*
10:40 – 11:20 **Jana Maříková** (Western Illinois University), *Model completeness of o-minimal fields with convex valuations.*
Special Session on Applications Of Logic To Operator Algebras
(Organized by Bradd Hart and Asger Tornquist)

Session A, THURSDAY, MAY 9
Room MC 4045
2:00 – 2:40 David Sherman (University of Virginia), Some model-theoretic results about operator algebras.
2:50 – 3:30 Isaac Goldbring (UIC), Recent developments in the model theory of tracial von Neumann algebras.

Session B, THURSDAY, MAY 9
Room MC 4045
4:00 – 4:40 An Speelman (KU Leuven), The classification of Cartan subalgebras up to automorphisms can be complete analytic.
4:50 – 5:30 Martino Lupini (York University), Unitary equivalence of automorphisms of C*-algebras.

Session C, THURSDAY, MAY 9
Room MC 4045
5:40 – 6:20 Tristan Bice (York University), Traces and Ultrapowers.

Special Session on Differential Categories and Differential Lambda Calculi
(Organized by Phillip Scott and Robert Seely)

Session A, WEDNESDAY, MAY 8
Room MC 2054
4:00 – 4:40 Lionel Vaux (IML, Luminy), Web based models of differential linear logic: an introduction.
4:50 – 5:30 Laurent Regnier (IML, Luminy), Higher order differentiation and Taylor expansion.

Session B, THURSDAY, MAY 9
Room MC 4060
4:00 – 4:40 Geoff Cruttwell (Mt. Allison), Differential categories and differential algebra.
4:50 – 5:30 Giulio Manzonetto (LIPN, Université Paris-Nord), Weighted Relational Differential Categories.

Session C, SATURDAY, MAY 11
Room QNC 1507

9:50 – 10:30 Christine Tasson (PPS, U. Paris-Diderot), Probabilistic Coherent Spaces are fully abstract.

10:40 – 11:20 Robin Cockett (U. Calgary), The road from Cartesian to tensor differential categories.

Special Session on Univalent Foundations
(Organized by Steve Awodey and Thierry Coquand)

Session A, WEDNESDAY, MAY 8
Room QNC 2501

2:00 – 2:40 Steve Awodey (IAS and CMU), Univalent foundations and homotopy type theory.

2:50 – 3:30 Guillaume Brunerie (IAS), A type-theoretic definition of weak $\infty$-groupoids.

Session B, THURSDAY, MAY 9
Room QNC 2501

2:00 – 2:40 Peter LeFanu Lumsdaine (IAS), Higher inductive types.

2:50 – 3:30 Dan Licata (IAS), Computer-checked proofs in the logic of homotopy theory.

Session C, FRIDAY, MAY 10
Room QNC 1506

2:00 – 2:40 André Joyal (IAS and UQAM), What is categorical type theory?

2:50 – 3:30 Michael Warren (IAS), Linear type theory.
CONTRIBUTED TALKS

Session A, WEDNESDAY, MAY 8
Room MC 4058

5:40 – 6:00 Kohei Kishida, Autonomy of substructures and the converse Barcan formula.
6:05 – 6:25 Spencer Breiner, Scheme representation for logical theories.

Session B, WEDNESDAY, MAY 8
Room MC 4060

5:40 – 6:00 Achilles A. Beros, Anomalous vacillatory learning.

Session C, WEDNESDAY, MAY 8
Room MC 4063

5:40 – 6:00 Katalin Bimbó, Inhabitants of $T^I$-theorems.

Session D, THURSDAY, MAY 9
Room MC 4021

5:40 – 6:00 Brian Rice, The Thin Set Theorem for pairs implies DNR.
6:05 – 6:25 David Belanger, Reverse mathematics and theories with finitely many models.

Session E, THURSDAY, MAY 9
Room MC 4059

5:40 – 6:00 Christopher Eagle, Omitting types in infinitary $[0,1]$-valued logic.
6:30 – 6:55 Jizhan Hong, Immediate expansions by valuation over fields.
Session F, THURSDAY, MAY 9
Room MC 4061

5:40 – 6:00 Polina Vinogradova, Formalizing abstract computability: Turing categories in Coq.

Session G, FRIDAY, MAY 10
Room MC 4021

5:00 – 5:20 Timothy O. Trujillo, A new Ramsey classification theorem with an application to the Tukey theory of ultrafilters.
5:25 – 5:45 Roger Villemaire, Characterising homogeneous structures for which Forth suffices.

Session H, FRIDAY, MAY 10
Room MC 4045

5:40 – 6:00 Will Boney, Tameness from large cardinal axioms.
6:05 – 6:25 Konstantinos A. Beros, Universal subgroups of Polish groups.

Session I, FRIDAY, MAY 10
Room MC 4059

5:25 – 5:45 Clayton Peterson, Non Kripkean semantics for deontic logic.

Session J, FRIDAY, MAY 10
Room MC 4061

5:00 – 5:20 Stanley Burris, Boole’s Foundation Principle.
5:25 – 5:45 Carrie Knoll, Complexity of classes of structures.