ASL Logic Colloquium 2019 - Program of talks

Speakers are shown in bold. A bold topic marked with a star * indicates an invited talk in a special session. Topics are abbreviated as:

C - computability
FG - foundations of geometry
MT - model theory
PTPC - proof theory and proof complexity
RPML - reflection principles and modal logic
ST - set theory

Monday

Plenary talks, Monday am

9:00-9:15 Opening
9:15-10:05 Thomas Scanlon
Over six decades of the model theory of valued fields
10:05-10:30 Coffee break
10:30-11:20 (Tutorial) Dilip Raghavan
Higher cardinal invariants
11:30-12:20 Jan Krajíček
Model theory and proof complexity

Room B, Monday pm

14:30-15:10 (C*) Laurent Bienvenu, Barbara Csima, Matthew Harrison-Trainor
Some questions of uniformity in algorithmic randomness
15:20-16:00 (C*) Wesley Calvert, Douglas Cenzer, Valentina Harizanov
Approximately computable equivalence structures
16:00-16:30 Coffee break
16:30-17:10 (MT*) Angus Macintyre
Model theory of adeles. Arithmetic equivalence
17:20-18:00 (MT*) Francesco Parente
Model-theoretic properties of ultrafilters and universality of forcing extensions
18:10-18:30 (MT) John Baldwin
On strongly minimal Steiner systems: Zilber's conjecture, universal algebra, and combinatorics

Room C, Monday pm

14:30-15:10 (PTPC*) Neil Thapen
Induction, search problems and approximate counting
15:20-16:00 (PTPC*) Sara Negri
Syntax for semantics
16:00-16:30 Coffee break
16:30-17:10 (PTPC*) Olaf Beyersdorff
Proof complexity of quantified Boolean formulas
17:20-17:40 (PTPC) Toshiyasu Arai
Some results in proof theory
17:40-18:00 (PTPC) **Andreas Weiermann**  
*A unifying approach to Goodstein principles*

18:10-18:30 (PTPC) **Sam Sanders**  
*Umpteen parallel hierarchies and the Gödel hierarchy*

**Room D, Monday pm**

14:30-14:50 (MT) **Jan Hubička**, Matěj Konečný, Jaroslav Nešetřil  
*On Hrushovski properties of Hrushovski constructions*

14:50-15:10 (MT) David M. Evans, Jan Hubička, **Matěj Konečný**, Yibei Li  
*Simplicity of automorphism groups of generalised metric spaces*

15:20-15:40 (MT) **Andrés Aranda**, David Hartman  
*MB-homogeneous graphs*

15:40-16:00 (ST) **John Howe**  
*Ramsey degrees of structures with equivalence relations*

16:00-16:30 Coffee break

16:30-16:50 (C) Julia Knight, **Alexandra Soskova**, Stefan Vatev  
*Effective coding and decoding structures*

16:50-17:10 (C) Rumen Dimitrov, Valentina Harizanov, Andrey Morozov, **Paul Shafer**, Alexandra Soskova, Stefan Vatev  
*Cohesive powers of ω*

17:20-17:40 (C) Nikolay Bazhenov, Hristo Ganchev, **Stefan Vatev**  
*Computable embeddings for pairs of linear orderings*

17:40-18:00 (C) **Nikolay Bazhenov**, Manat Mustafa, Mars Yamaleev  
*Computable reducibility, and isomorphisms of distributive lattices*

18:10-18:30 (C) **Robert Lubarsky**  
*Feedback hyperjump*

**Room E, Monday pm**

14:30-14:50 (FG) **Ryszard Mirek**  
*Euclidean Geometry*

14:50-15:10 (FG) **Davit Harutyunyan**, Aram Nazaryan, Victor Pambuccian  
*The Hajja-Martini inequality in a weak absolute geometry*

15:20-15:40 (FG) **Tatyana Ivanova**, Tinko Tinchev  
*First-order theory of lines in Euclidean plane*

15:40-16:00 (FG) Philippe Balbiani, **Tinko Tinchev**  
*Computability of contact logics with measure*

16:00-16:30 Coffee break

16:30-16:50 (RPML) **Mateusz Łełyk**  
*Nonequivalent axiomatizations of PA and the Tarski Boundary*

16:50-17:10 (RPML) **Bartosz Wcisło**  
*Topological models of arithmetic*

17:20-17:40 (RPML) **Mahfuz Rahman Ansari**, A V Ravishankar Sarma  
*Constraints on selection function: A critique of Lewis-Stalnakers semantics for counterfactuals*
17:40-18:00 (RPML) A. V. Ravishankar Sarma  
Belief revision based on abductive reasoning

18:10-18:30 (RPML) Luciana Garbayo  
Dependence logic & medical guidelines disagreement: an informational (in)dependence analysis

Room F, Monday pm

14:30-14:50 Alexandre Madeira, Manisha Jain, Manuel Martins  
Towards Invariant bisimulations for parametric multi-valued dynamic logics
14:50-15:10 Ryota Akiyoshi, Andrew Arana  
On Gaisi Takeuti's philosophy of mathematics
15:20-15:40 Tomasz Polacik  
Archetypal Rules: Beyond Classical Logic
15:40-16:00 Harold Hodes  
Ramified-types for states of affairs
16:00-16:30 Coffee break
16:30-16:50 (ST) Sourav Tarafder  
Foundations of mathematics in a model of paraconsistent set theory
16:50-17:10 (ST) Marta Vlasáková  
Frege's attitude towards sets
17:20-17:40 (ST) Frode A. Bjordal  
Capture and Array – Replacement, Specification and Choice
17:40-18:00 (ST) Joanna Jureczko  
New results on partitioner-representable algebras
18:10-18:30 (ST) Noah Schoem  
Destruction of ideal saturation

Tuesday

Plenary talks, Tuesday am

9:00-9:50 Zoé Chatzidakis  
Notions of difference closures of difference fields
9:50-10:30 Coffee break
10:30-11:20 (Tutorial) Dilip Raghavan  
Higher cardinal invariants
11:30-12:20 Gil Sagi  
Logic and natural language: commitments and constraints

Room B, Tuesday pm

14:30-15:10 (MT*) Ayse Berkman  
Sharp actions of groups in the finite Morley rank context
15:20-16:00 (MT*) Philip Dittmann  
Models of the common theory of algebraic extensions of the rational numbers
16:00-16:30 Coffee break
16:30-17:10 (RPML*) Fedor Pakhomov
A weak set theory that proves its own consistency
17:20-18:00 (RPML*) Albert Visser
Löb's logic and the Lewis arrow
18:10-18:30 (RPML) Emanuele Frittaion
The uniform reflection principle in second order arithmetic

Room C, Tuesday pm

14:30-15:10 (FG*) John Mumma
Diagrams and parallelism
15:20-16:00 (FG*) Michael Beeson
On the notion of equal figures in Euclid
16:00-16:30 Coffee break
16:30-17:10 (ST*) Andy Zucker
Bernoulli disjointness
17:20-18:00 (ST*) Yair Hayut
Stationary Reflection at the successor of a singular cardinal
18:10-18:30 (ST) Maxwell Levine
Singular Cardinals of Uncountable Cofinality

Room D, Tuesday pm

14:30-14:50 (PTPC) José M. Méndez, Gemma Robles, Francisco Salto
Falsity constants for two independent families of quasi-Boolean logics
14:50-15:10 (PTPC) Satoru Niki, Peter Schuster
On Scott's semantics for many-valued logic
15:20-15:40 (ST) Evgeny Gordon
On extension of Haar measure in $\sigma$-compact groups
15:40-16:00 (PTPC) Marta Gawek, Agata Tomczyk
Translation of Sequent Calculus into Natural Deduction for Sentential Calculus with Identity
16:00-16:30 Coffee break
16:30-16:50 Ricardo Nicolás-Francisco, Luis Estrada-González
Negation can be just what it has to be
16:50-17:10 (PTPC) Luiz Carlos Pereira, Edward Hermann Haehusler
New ecumenical systems
17:20-17:40 (PTPC) Guillermo Badia, Petr Cintula, Andrew Tedder
How much propositional logic suffices for Rosser’s undecidability theorem?
17:40-18:00 (PTPC) Paolo Baldi, Petr Cintula, Carles Noguera
On classical and fuzzy two-layered modal logics for uncertainty: translations and proof-theory
18:10-18:30 (PTPC) Libor Běhounek
Non-monotonic abstract multiset consequence relations

Room E, Tuesday pm

14:30-14:50 Iaroslav Petik
Reading Feyerabend: from epistemic anarchism to anarchism in foundations of formal systems
14:50-15:10 **Francisco Martinez Herrera**  
*Justifications and the Lewis argument on ECQ: a relevant note*

15:20-15:40 **James Appleby**  
*Resolving Two Paradoxes About Knowledge States in the Foundations of Intuitionistic Analysis*

15:40-16:00 **Meha Mishra, A.V. Ravishankar Sarma**  
*An inconsistency tolerant paraconsistent deontic logic of moral conflicts*

16:00-16:30 Coffee break

16:30-16:50 (MT) **Dmitry Emelyanov, Beibut Kulpeshov, Sergey Sudoplatov**  
*On compositions of structures and compositions of theories*

16:50-17:10 (MT) **Inessa Pavlyuk**, Sergey Sudoplatov  
*On ranks for families of theories of finite abelian groups*

17:20-17:40 (MT) **Tomáš Jakl**  
*On connections between logic on words and limits of graphs*

17:40-17:50 (MT) **David Bradley-Williams**  
*Canonical invariants for t-stratifications*

17:50-18:00 (MT) **Sam van Gool**  
*Monadic second order logic as a model companion*

**Room F, Tuesday pm**

14:30-14:50 (C) **Svetlana Aleksandrova, Nikolay Bazhenov**  
*On $\Sigma_n^0$-classifications*

14:50-15:10 (C) **Marta Fiori Carones, Alberto Marcone, Paul Shafer, Giovanni Soldà**  
*Reverse Mathematics of some principles related to partial orders*

15:20-15:40 (C) **Michal Tomasz Godziszewski, Dino Rossegger, Luca San Mauro**  
*Quotient presentations of structures*

15:40-16:00 (C) **Nikolay Bazhenov, Dino Rossegger, Luca San Mauro, Maxim Zubkov**  
*On bi-embeddable categoricity of linear orders*

16:00-16:30 Coffee break

16:30-16:50 (C) **Damir Zainetdinov**  
*Limitwise monotonic reducibility of sets and $\Sigma$-definability of abelian groups*

16:50-17:10 (C) **Ilya Vlasov**  
*On enumerations of families of sets of computable elements of metric spaces*

17:20-17:40 (C) **Patrick Lutz, James Walsh**  
*Descending sequences of hyperdegrees and the second incompleteness theorem*

17:40-18:00 (C) **Michael Stephen Fiske**  
*Quantum Random Self-Modifiable Computation*

18:10-18:30 (C) **Rachael Alvir**  
*Scott complexity and finitely $\alpha$-generated structures*
Wednesday

Plenary talks, Wednesday am

9:00-9:50 Samson Abramsky
Relating Structure and Power: a junction between categorical semantics, model theory and descriptive complexity
9:50-10:30 Coffee break
10:30-11:20 (Tutorial) Michael Rathjen
Well-ordering principles in proof theory and reverse mathematics
11:30-12:20 Vincenzo de Risi
Drawing Lines through Rivers and Cities. The Meaning of Postulates from Euclid to Hilbert

Thursday

Plenary talks, Thursday am

9:00-9:50 Ulrich Kohlenbach
Local proof-theoretic foundations, proof-theoretic tameness and proof mining
9:50-10:30 Coffee break
10:30-11:20 (Tutorial) Michael Rathjen
Well-ordering principles in proof theory and reverse mathematics
11:30-12:20 Rineke Verbrugge
Zero-one laws for provability logic and some of its siblings

Room B, Thursday pm

14:30-15:10 (RPML*) Emil Jeřábek
Arithmetical and propositional reflection principles
15:20-16:00 (RPML*) Ali Enayat
Some recent news about truth theories
16:00-16:30 Coffee break
16:30-17:10 (C*) Noah Schweber
More effective cardinal characteristics
17:20-18:00 (C*) Denis Hirschfeldt
Computability theory, reverse mathematics, and Hindman's Theorem

Room C, Thursday pm

14:30-15:10 (FG*) Pierre Boutry
Towards an independent version of Tarski's system of geometry
15:20-16:00 (FG*) Gianluca Paolini
First-order model theory of free projective planes
16:00-16:30 Coffee break
16:30-17:10 (ST*) Daniel T. Soukup
Through the lense of uniformization
17:20-18:00 (ST*) Heike Mildenberger, Saharon Shelah
Generalised Miller forcing may collapse cardinals
Room D, Thursday pm

14:30-14:50 (MT) Sergey Davidov, Senik Alvrtsyan, Davit Shahnazaryan
Invertible binary algebras principally isotopic to a group
14:50-15:10 (MT) Rosario Mennuni
Product of invariant types modulo domination-equivalence
15:20-15:40 (MT) Alice Medvedev, Alexander Van Abel
The Feferman-Vaught Theorem and products of finite fields
15:40-16:00 (MT) Johan Lindberg
Constructive semantics and the Joyal-Tierney representation theorem
16:00-16:30 Coffee break
16:30-16:50 (RPML) Joost Joosten
Hyperarithmetical Turing progressions
16:50-17:10 (RPML) Taishi Kurahashi
Derivability conditions and the second incompleteness theorem
17:20-17:40 (RPML) Larisa Maksimova, Veta Yun
On strong recognizability of the intuitionistic logic
17:40-18:00 (RPML) Ilya Shapirovsky
Satisfiability problems on sums of Kripke frames

Room E, Thursday pm

14:30-14:50 (PTPC) Anahit Chubaryan, Artur Khamisyan
On the proof complexity in two universal proof system for all versions of many-valued logics
14:50-15:10 (PTPC) Anahit Chubaryan, Garik Petrosyan, Sergey Sayadyan
Monotonous and strong monotonous properties of some propositional proof systems for Classical and Non Classical Logics
15:20-15:40 (PTPC) Satoru Kuroda
On Takeuti-Yasumoto forcing
15:40-16:00 (PTPC) Martin Maxa
Feasible incompleteness
16:00-16:30 Coffee break
16:30-16:50 Oguz Korkmaz
Belief as a quantum bit
16:50-17:10 Pavel Arazim
Logical systems as pedagogical and perhaps existential games
17:20-17:40 Luis Estrada-González, Claudia, Lucia Tanús-Pimentel
Content-sharing in relevant mathematics
17:40-18:00 (MT) Emanuele Bottazzi
An existence result for a class of partial differential equations
Room F, Thursday pm

14:30-14:50 (PTPC) Yong Cheng
The limit of incompleteness for Weak Arithmetics
14:50-15:10 (PTPC) Amirhossein Akbar Tabatabai, Raheleh Jalali
On the logical implications of proof forms
15:20-15:40 (PTPC) Andrei Sipos
Bounds on strong unicity for Chebyshev approximation with bounded coefficients
15:40-16:00 (PTPC) Ranjan Mukhopadhyay
Cut elimination and Restall’s defining rules
16:00-16:30 Coffee break
16:30-16:50 (PTPC) Mattias Granberg Olsson, Graham Leigh
Partial conservativity of ID₁ over Heyting arithmetic via realizability
16:50-17:10 (PTPC) Iris van der Giessen
Intuitionistic provability logic
17:20-17:40 (PTPC) Anna Glenszczyk
Intuitionistic control logic: an overview
17:40-18:00 (PTPC) Joachim Mueller-Theys
Multi-valued interpretations

Friday

Plenary talks, Friday am

9:00-9:50 Osvaldo Guzman
The ultrafilter and almostdisjointness numbers
9:50-10:30 Coffee break
10:30-11:20 Martin Ziegler
Logic of Computing with Continuous Data: Foundations of Numerical Software Engineering
11:30-12:20 Matthew Harrison-Trainor
Describing countable structures

Room B, Friday pm

14:30-15:10 (PTPC*) Pedro Pinto
Proof mining with the bounded functional interpretation
15:20-16:00 (PTPC*) Bahareh Afshari
An infinitary treatment of fixed point modal logic
16:00-16:30 Coffee break
16:30-17:10 (PTPC*) Thomas Powell
A new application of proof mining in the fixed point theory of uniformly convex Banach spaces
17:20-17:40 (PTPC) Andrzej Indrzejczak
Admissibility of Cut for Sequent Calculus related to n-labelled Tableaux
17:40-18:00 (PTPC) José Espírito Santo, Gilda Ferreira
An embedding of IPC into Fₐ not relying on instantiation overflow
18:10-18:30 (PTPC) **Franco Parlamento, Flavio Previale, Federico Munini**

*The subterm property for some equality sequent calculi*

**Room C, Friday pm**

14:30-14:50 (MT) **Aleksander Iwanow**
*Pseudocompact unitary representations of finitely generated groups*

14:50-15:10 (MT) **Hirotaka Kikyo**
*On automorphism groups of Hrushovski’s pseudoplanes in rational cases*

15:20-15:40 (MT) **Christian Espindola**
*Preservation theorems for strong first-order logics*

15:40-16:00 (MT) **Miguel Campercholi**
*Dominions in filtral quasivarieties*

16:00-16:30 Coffee break

16:30-16:50 (MT) **Michael Lieberman**, Jiří Rosický, Sebastien Vasey
*Weak factorization systems and stable independence*

16:50-17:10 (MT) **Sebastien Vasey**
*Forking and categoricity in non-elementary model theory*

17:20-17:40 (MT) **Thomas Kucera**, Marcos Mazari-Armida
*On universal modules with pure embeddings*

17:40-18:00 (MT) **Pedro H. Zambrano**
*Tameness in classes of generalized metric structures: quantale-spaces, fuzzy sets, and sheaves*

18:10-18:30 (MT) **Junguk Lee**, Daniel Max Hoffmann
*Elementary theories of PAC structures via Galois groups*

**Room D, Friday pm**

14:30-14:50 (ST) **Borisa Kuzeljević**
*Antichains of copies of ultrahomogeneous structures*

14:50-15:10 (ST) **Dorottya Sziráki**
*Perfect sets and games on generalized Baire spaces*

15:20-15:40 (ST) **Jaroslav Šupina**
*Cardinal invariants and ideal convergence*

16:00-16:30 Coffee break

16:30-16:50 (RPML) **Tadeusz Litak**
*Algebras for preservativity*

16:50-17:10 (RPML) **Igor Sedlár**
*Fixpoints in generalized Lambek calculus*

17:20-17:40 (RPML) Joseph Boudou, Martín Diéguez, **David Fernández-Duque**
*A Complete Intuitionistic Temporal Logic for Topological Dynamics*

17:40-18:00 (RPML) **Sergey Drobyshevich**, Sergei Odintsov
*Towards a classification of algebraizable FDE-based modal logics*

18:10-18:30 (RPML) **Amirhossein Akbar Tabatabai**
*The BHK interpretation: looking through Gödel’s classical lens*
Room E, Friday pm

14:30-14:50 Thomas Macaulay Ferguson, Elisangela Ramirez-Camara
*The Limit of the Strict-Tolerant Hierarchy is Essentially Classical and Even If It’s Just Lp, That’s Probably Okay.*

14:50-15:10 Sena Bozdag
*A hyperintensional and paraconsistent approach to belief dynamics*

15:20-15:40 Vedran Čačić, Marko Doko, Marko Horvat
*Rearranging absolutely convergent well-ordered series in Banach spaces*

15:40-16:00 Vedran Čačić, Egor V. Kostylev, Juan L. Reutter, Domagoj Vrgoč
*Complexity of some fragments of description logics*

16:00-16:30 Coffee break

16:30-16:50 (FG) David Pierce
*Apollonian proof*

16:50-17:10 (FG) Piotr Blaszczyk
*Axioms for Euclid’s Elements book V, their consequences and some independence results*

17:20-17:40 (FG) Marlena Fila, Piotr Blaszczyk
*Limits of diagrammatic reasoning*

17:40-18:00 (FG) Grzegorz Sitek
*Mereological model of arithmetic of natural and real numbers*

Room F, Friday pm

14:30-14:50 (C) Alexey Ryzhkov, Alexey Stukachev, Marina Stukacheva
*Interval semantics for natural languages and effective interpretability over the reals*

14:50-15:10 (C) Manat Mustafa, Sergey Ospichev
*About Rogers semilattices of finite families in Ershov hierarchy*

15:20-15:40 (C) Natalia Korneeva
*Prefix decidable infinitewords for natural subsets of the set of context-free languages*

15:40-16:00 (C) Andrey Morozov, Jamalbek Tussupov
*On minimal elements in the A-reducibility on families of predicates*

16:00-16:30 Coffee break

16:50-17:10 Ludovica Conti
*One or more Logicisms*