ASSOCIATION FOR SYMBOLIC LOGIC
2004 ANNUAL MEETING

Carnegie Mellon University
Pittsburgh, Pennsylvania

May 19–23, 2004

Program Committee: Sergei Artemov (Chair), Tomek Bartoszynski, Denis Hirschfeldt, Chris Laskowski, Wilfried Sieg.

Local Organizing Committee: Jeremy Avigad (Chair), Steve Awodey, Lenore Blum, James Cummings, Ernest Schimmerling, Wilfried Sieg.
For additional information, visit `http://www.aladdin.cs.cmu.edu/asl`

The conference will be held in Carnegie Mellon's Baker Hall. The main lectures will be held in the Giant Eagle Auditorium, BH A51. The registration desk and the book exhibits will be located in the lounge area outside Baker Hall A51 and A53.

WEDNESDAY, MAY 19

Morning, BH A51

8:35 – 8:45	Opening Remarks
8:45 – 9:45	Invited Lecture: **Angus J. MacIntyre** (University of Edinburgh), *Schanuel's conjecture and its significance for the logic of the real and complex exponentials.*
9:45 – 10:05	Coffee Break
10:05 – 11:05	Invited Lecture: **Steve Jackson** (University of North Texas), *Regular markers and countable equivalence relations.*
11:15 – 12:15	Tutorial: **Toniann Pitassi** (University of Toronto), *Recent advances in proof complexity I.*

Afternoon, BH A51

2:00 – 3:00 Invited Lecture: **John Baldwin** (University of Illinois at Chicago), *Categoricity transfer in infinitary logic.*
3:10 – 4:10 Tutorial: **Jeremy Avigad** (Carnegie Mellon University), *Proof mining I.*
4:10 – 4:30 Coffee Break

Special Session on Set Theory (A)
BH A51

4:30 – 4:55 **Ben Miller** (University of California, Berkeley), *Unwed and without direction.*
5:00 – 5:25 **John Clemens** (Pennsylvania State University), *Complemented sets and difference sets.*
5:30 – 5:55 **Tetsuya Ishiu** (University of Kansas), *Applications of guessing sequences to general topology.*
6:00 – 6:25 **Bernhard Koenig** (University of California, Irvine), *Preservation of forcing axioms.*

Special Session: Gödel and Mathematical Logic in the 20th Century (A)
BH A53

4:30 – 5:05 **Martin Davis** (Berkeley), *What did Gödel believe and when did he believe it?*
5:10 – 5:45 **John W. Dawson, Jr.** (Pennsylvania State University) and **Cheryl A. Dawson**, *Future tasks for Gödel scholars.*
5:50 – 6:25 **Solomon Feferman** (Stanford University), *Gödel on the installment plan.*

THURSDAY, MAY 20

Morning, BH A51

8:45 – 9:45 Invited Lecture: **Kenneth Kunen** (University of Wisconsin), *Elementary submodels in topology and analysis.*
9:45 – 10:05 Coffee Break
10:05 – 11:05 Gödel Lecture: **Michael O. Rabin** (Harvard University), *Proofs persuasions and randomness in mathematics.*
11:15 – 12:15 Tutorial: **Toniann Pitassi** (University of Toronto), *Recent advances in proof complexity II.*

Afternoon, BH A51

2:00 – 3:00 Invited Lecture: **Penelope Maddy** (University of California, Irvine), *Mathematical existence.*
3:10 – 4:10 Tutorial: **Jeremy Avigad** (Carnegie Mellon University), *Proof mining II.*
4:10 – 4:30 Coffee Break

<div align="center">Special Session on Set Theory (B)</div>
<div align="center">BH A51</div>

4:30 – 4:55 **Elizabeth Brown** (James Madison University), *Uncountable tree forcing.*
5:00 – 5:25 **Stuart Zoble** (Boise State University), *Mouse reflection.*
5:30 – 5:55 **Natasha Dobrinen** (Pennsylvania State University), κ-*stationary sets are necessary in the investigation of relationships between general distributive laws and infinitary games in Boolean algebras.*
6:00 – 6:25 **Todd Eisworth** (University of Northern Iowa), *Generalizing properness.*

<div align="center">Special Session: Gödel and Mathematical Logic in the 20th Century (B)</div>
<div align="center">BH A53</div>

4:30 – 5:05 **Warren Goldfarb** (Harvard University), *Gödel and Carnap: influence and opposition.*
5:10 – 5:45 **Wilfried Sieg** (Carnegie Mellon University), *Only two letters: the correspondence between Herbrand and Gödel.*
5:50 – 6:25 **William W. Tait** (University of Chicago), *Gödel's reformulation of Gentzen's first consistency proof for arithmetic: the no-counterexample interpretation.*
6:35 – 7:10 **Donald Martin** (University of California, Los Angeles), *T.B.A.*

8:30 – 11:00 ASL Council Meeting. Baker Hall Room 150.

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FRIDAY, MAY 21

Morning, BH A51

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8:45 – 9:45 Invited Lecture: **Lev Beklemishev** (Utrecht University and Steklov Mathematical Institute, Moscow), *From provability logic to combinatorial independence results.*
9:45 – 10:05 Coffee Break
10:05 – 11:05 Invited Lecture: **Michael Hallett** (McGill University), *Reflections on the purity of method in Hilbert's* Grundlagen der Geometrie.
11:15 – 12:15 Tutorial: **Toniann Pitassi** (University of Toronto), *Recent advances in proof complexity III.*

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Afternoon, BH A51

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2:00 – 3:00 Invited Lecture: **Valentina Harizanov** (The George Washington University), *Effectiveness in algebraic structures.*
3:10 – 4:10 Tutorial: **Jeremy Avigad** (Carnegie Mellon University), *Proof mining III.*
4:10 – 4:30 Coffee Break
4:30 – 6:30 Contributed Talks, Sessions 1, 2, 3, 4: *See page 6.*

7:00 – Conference Dinner. Rangos Hall, University Center.

8:30 – 11:00 ASL Council Meeting. Baker Hall Room 150.

SATURDAY, MAY 22

Morning, BH A51

8:45 – 9:45   Invited Lecture: **Joe Miller** (Victoria University of Wellington),
Measuring the randomness of random reals.

9:45 – 10:05   Coffee Break

10:05 – 11:05   Invited Lecture: **Michael Rathjen** (Ohio State University),
Equiconsistency results and open problems in constructive and intuitionistic set theories.

11:15 – 12:15   Invited Lecture: **Paul Vitanyi** (CWI and University of Amsterdam),
Extracting meaning with Kolmogorov and Shannon.

Afternoon

Special Session On Logic and Games (A)
BH A51

2:00 – 2:50   **Rohit Parikh** (City University of New York), *Social software and the logical properties of real life procedures.*

3:00 – 3:50   **Steven J. Brams*** (New York University), **D. Marc Kilgour** (Wilfrid Laurier University) and **M. Remzi Sanver** (Istanbul Bilgi University), *A minimax procedure for electing committees.*

Panel Discussion on Logic in Computer Science Education
BH A53

2:00 – 4:00   Panelists **Kim B. Bruce** (Williams College), **Peter B. Henderson** (Butler University), **Daniel Leivant** (Indiana University - Bloomington), and **John S. Schlipf** (University of Cincinnati)

4:00 – 4:20   Coffee Break

Special Lectures
BH A51

4:20 – 5:20   Special Lecture: **John McCarthy** (Stanford University), *What more does artificial intelligence want from mathematical logic?*

5:30 – 6:30   Special Lecture: **William A. Howard** (University of Illinois at Chicago), *Aspects of proof theory and foundations, 1950-1985.*

SUNDAY, MAY 23

Morning, BH A51

9:00 – 10:00 Special Lecture (joint with MFPS): **Dana Scott** (Carnegie Mellon University), *Sets, topologies, categories.*

10:00 – 10:20 Coffee break

Special Session on Logical Foundations of Programming Semantics (joint with MFPS)
BH A51

10:20 – 10:45 **Andrej Bauer**[*](University of Ljubljana) and **Christopher Stone** (Harvey Mudd College), *From theories to signatures.*

10:50 – 11:15 **Martín Escardó** (University of Birmingham), *Topology via higher-order logic.*

11:20 – 11:45 **Nicola Gambino** (University of Cambridge), *Wellfounded trees, fixpoints, and free monads.*

11:50 – 12:15 **Alex Simpson** (University of Edinburgh), *Axioms for synthetic domain theory.*

Special Session On Logic and Games (B)
BH A53

10:20 – 11:10 **Cristina Bicchieri** (Carnegie Mellon University), *A taste for fairness.*

11:20 – 12:10 **Adam Brandenburger** (New York University) and **H. Jerome Keisler**[*](University of Wisconsin), *An impossibility theorem on beliefs in games.*

Contributed talks schedule on page 6

CONTRIBUTED TALKS
(For joint papers, * indicates the speaker.)

FRIDAY, May 21

Session 1, BH A53

4:30 – 4:50 **Peter B. Andrews* and Chad E. Brown,** *Proving theorems and teaching logic with TPS and ETPS.*

4:55 – 5:15 **Daniel Leivant,** *Second order logic and the metamathematics of logics of programs.*

5:20 – 5:40 **Pavel Naumov,** *On modal logic of partial computable functions.*

5:45 – 6:05 **Yevgeniy Makarov,** *Classical proofs viewed as functional programs with control operators.*

6:10 – 6:30 **Roman Kuznets,** *On decidability of the logic of proofs with arbitrary constant specifications.*

Session 2, BH 235A

4:30 – 4:50 **Benedikt Löwe,** *Measure assignments and Kleinberg sequences.*

4:55 – 5:15 **Sergio Fratarcangeli,** *Elimination of imaginaries in generic expansions of o-minimal theories.*

5:20 – 5:40 **Chad E. Brown,** *Set comprehension in Church's type theory.*

5:45 – 6:05 **Elisa Vasquez,** *An application of Crofton's formula to o-minimal structures.*

6:10 – 6:30 **Michael Ray Oliver,** *Many nonisomorphic boolean algebras $\mathcal{P}(\omega)/\mathcal{I}$.*

Session 3, BH 235B

4:30 – 4:50 **Rod Downey and Liang Yu*,** *There are no maximal low d.c.e. degrees.*

4:55 – 5:15 **Russel Miller,** *The curious case of order-computable sets.*

5:20 – 5:40 **Thomas Kent,** *Results on non-splitting Σ_2^0 enumeration degrees.*

5:45 – 6:05 **Rebecca Weber,** *Invariance and orbits in the lattice of Π_1^0 classes.*

6:10 – 6:30 **Alexander Raichev,** *Relative randomness and real closed fields.*

Session 4, BH 237B

4:30 – 4:50 **Eric Pacuit* and Rohit Parikh,** *A logic for communication graphs (preliminary report).*

4:55 – 5:15 **Walter Dean,** *From Church's thesis to extended Church's thesis.*

5:20 – 5:40 **Michael A. Warren,** *Predicative categories of classes.*

5:45 – 6:05 **Martin K. Solomon,** *Some remarks on Gödelian philosophy.*