ASSOCIATION FOR SYMBOLIC LOGIC

1998–99 ANNUAL MEETING

University of California, San Diego
March 20–23, 1999

ADVANCE PROGRAM

Program committee: Sam Buss (chair), Bradd Hart, Carl G. Jockusch, Jr., Vann McGee, and W. Hugh Woodin.
Local organizing committee: Sam Buss, Jeff Remmel, and Gila Sher (chair).

On Saturday, all talks will be in the UCSD Price Center, Ballroom A. On Sunday through Tuesday, all talks will be in Center Hall. Book exhibits will be in Center Hall Room 222.

SATURDAY, MARCH 20, UCSD Price Center

Morning, Ballroom A

8:15 – 8:30	Coffee and Snacks.
8:35 – 8:45	Opening Remarks.
8:45 – 9:45	Invited Lecture: **Steffen Lempp** (Wisconsin–Madison), *The structure of the* Σ_2 *enumeration degrees.*
9:45 – 10:00	Break.
10:00 – 11:00	Invited Lecture: **Victor Vianu** (U.C. San Diego), *Topological queries in spatial databases.*
11:00 – 11:30	Break.
11:30 – 12:30	Invited Lecture: **Jindrich Zapletal** (Dartmouth), *Terminal notions in set theory.*

Afternoon, Ballroom A

Mini-symposium on Mathematical Intuition

2:00 – 2:55	**Charles Parsons** (Harvard), *Two conceptions of intuition.*
3:00 – 3:55	**William Tait** (Chicago), *Realism and intuition: A critical discussion of Gödel's philosophy.*
4:00 – 4:55	**Michael Friedman** (Indiana), *Geometry, construction, and intuition in Kant and his successors.*
5:30 – 7:30	Welcome Reception. UCSD International Center.

SUNDAY, MARCH 21, Center Hall

Morning, Room 109

8:15 – 8:40	Coffee and Snacks.
8:45 – 9:45	Tutorial I: **Ronald Fagin** (IBM Almaden), *Finite-model theory – a personal perspective.*

9:45 – 10:00 Break.
10:00 – 11:00 Invited Lecture: **Simon Thomas** (Rutgers), *The automorphism tower problem.*
11:00 – 11:30 Break.
11:30 – 12:30 Tenth Annual Gödel Lecture: **Stephen Cook** (Toronto), *Logic and computational complexity.*

Afternoon

Special Session on Computability Theory, Room 218

2:00 – 2:35 **Richard Shore** (Cornell), *Computable dimension, degree spectra, and expansions by constants.*
2:40 – 3:15 **Manuel Lerman** (Connecticut), *The decidability of the existential theory of the poset of degrees with jump and least element.*
3:20 – 3:55 **Leo Harrington** (U.C. Berkeley), *Invariant jump classes.*

Special Session on Finite Model and Stability Theory, Room 109

2:00 – 2:35 **Phokion Kolaitis** (U.C. Santa Cruz), *On global closure ordinals.*
2:40 – 3:15 **Michael Benedikt** (Bell Laboratories), *Some extensions of finite model theory.*
3:20 – 3:55 **Chris Laskowski** (Maryland), *The independence property and finitary analogues.*

Special Session on Second-Order Logic, Room 105

2:00 – 2:40 **Michael Resnick** (North Carolina), *The renaissance of second-order logic in the philosophy of mathematics.*
2:40 – 2:55 Discussion.
3:00 – 3:40 **James Higgenbotham** (Sommerville College), *Launching second-order logic.*
3:40 – 3:55 Discussion.

Special Session on Proof Theory and Complexity, Room 220

2:00 – 2:35 **Chris Pollett** (Clark University), *Using translation to separate bounded arithmetic theories.*
2:40 – 3:15 **Jan Johannsen** (U.C. San Diego), *Bounded arithmetic, threshold circuits and counterexample computations.*
3:20 – 3:55 **Stephen Bellantoni** (Toronto), *A new 'feasible' arithmetic.*

Special Session on Set Theory, Room 217B

2:00 – 2:35 **Alexander Kechris** (Caltech), *Linear algebraic groups and descriptive set theory.*
2:40 – 3:15 **Randall Dougherty** (Ohio State), *Congruences between open sets.*

4:15 – 6:15 Contributed Talks, Sessions I-A, I-B, and I-C *(see page 4)*.

7:00 – 9:00 Reception. Radisson Hotel La Jolla.

8:30 – 11:00 ASL Council Meeting. Radisson Hotel La Jolla.

MONDAY, MARCH 22, Center Hall

Morning, Room 109

8:15 – 8:40 Coffee and Snacks.
8:45 – 9:45 Retiring ASL Presidential Address: **Menachem Magidor** (Hebrew University), *To be announced.*

9:45 – 10:00 Break.
10:00 – 11:00 Invited Lecture: **Hans Schoutens** (Wesleyan), *Asympotically definable structures.*
11:00 – 11:30 Break.
11:30 – 12:30 Tutorial II: **Ronald Fagin** (IBM Almaden), *Easier ways to win logical games.*

Afternoon

Special Session on Computability Theory, Room 218

2:00 – 2:35 **Geoff Laforte** (IHMC, Pensacola), *Isolation in higher degree types.*
2:40 – 3:15 **Rod Downey** (Wellington, NZ), *Automorphisms of the lattice of* Π^0_1 *classes.*
3:20 – 3:55 **Douglas Cenzer** (Gainesville), *Initial segments of the lattice of* Π^0_1 *classes.*

Special Session on Finite Model and Stability Theory, Room 109

2:00 – 2:35 **Leo Harrington** (U.C. Berkeley), *Finite ultrahomogeneous structures.*
2:40 – 3:15 **Marko Djordjević** (Uppsala), *Finite variable logic, stability, and finite models.*
3:20 – 3:55 **Tapani Hyttinen** (Helsinki), *Stability in finite models.*

Special Session on Nominalism and Realism, Room 105

2:00 – 2:40 **Penelope Maddy** (U.C. Irvine), *Methodology for the naturalist.*
2:40 – 2:55 Discussion.
3:00 – 3:40 **John Burgess** (Princeton), *Mathematics and Bleak House.*
3:40 – 3:55 Discussion.

Special Session on Proof Theory and Complexity, Room 220

2:00 – 2:35 **Alasdair Urquhart** (Toronto), *Complexity of some substructural logics.*
2:40 – 3:15 **Richard Sommer** (CSLI, Stanford), *The computational complexity of uniform reflection.*
3:20 – 3:55 **Juliette Kennedy** (Helsinki), *On an unprovability result in bounded arithmetic.*

Special Session on Set Theory, Room 217B

2:00 – 2:35 **Steve Jackson** (University of North Texas), *On the theory of* $\mathbf{\Pi}^1_5$ *sets.*
2:40 – 3:15 **Howard Becker** (University of Southern Carolina), *Ideals without ccc and without property (M).*

4:15 – 5:50 Contributed Talks, Sessions II-A, II-B, and II-C *(see page 4).*

8:30 – 11:00 ASL Council Meeting. Radisson Hotel La Jolla.

TUESDAY, MARCH 23, Center Hall

Morning, Room 109

8:15 – 8:40 Coffee and Snacks.
8:45 – 9:45 Invited Lecture: **Toniann Pitassi** (Arizona), *Algebraic proof systems and binomial ideals.*
9:45 – 10:00 Break.
10:00 – 11:00 Invited Lecture: **Julia Knight** (Notre Dame), *Complexity and arithmetic.*
11:00 – 11:30 Break.
11:15 – 12:15 Invited Lecture: **Sy Friedman** (MIT), *Genericity and large cardinals.*

End of conference.

CONTRIBUTED TALKS

(For joint papers, speakers are marked with an asterisk.)

Session I-A: Sunday, March 21 in Center Hall, Room 217A

4:15 – 4:35 **Amy K.C.S. Vanderbilt* and Douglas Cenzer,** *Intuitionistic default theories and their common derivations.*
4:40 – 5:00 **Samir Chopra* and Rohit Parikh,** *An inconsistency tolerant model for belief representation and belief revision.*
5:05 – 5:25 **Leon Horsten,** *Intensionality in epistemic arithmetic.*
5:30 – 5:50 **Tarek Sayed Ahmed,** *The class of neat reducts is not elementary.*

Session I-B: Sunday, March 21 in Center Hall, Room 217B

4:15 – 4:35 **Kejia Ho* and Frank Stephan,** *On bounding simple sets inside $\mathcal{M}$-degrees.*
4:40 – 5:00 **Dejia Wang,** *Saturation properties in the structure of the computably enumerable degrees.*
5:05 – 5:25 **Maciej Smuga-Otto,** *Non-dense embedding of lattices into the d-r.e. degrees.*

Session I-C: Sunday, March 21 in Center Hall, Room 218

4:15 – 4:35 **Riccardo Camerlo* and Alexander Kechris,** *Countable structures with a fixed group of automorphisms.*
4:40 – 5:00 **Annalisa Marcja* and Carlo Toffalori,** *Diagrammatic and topological methods in the decision problem for modules.*
5:05 – 5:25 **Gearge Weaver,** *The first order theory of Dedekind algebras.*
5:30 – 5:50 **Paul Bankston,** *The model theory of continua.*

Session II-A: Monday, March 22 in Center Hall, Room 217A

4:15 – 4:35 **Geoffrey Hellman,** *Maximality vs. extendability: A Zermellian-structuralist view of some recent results of McGee on set-theoretic determinateness.*
4:40 – 5:00 **Jukka Keränen,** *The individuation problem: Realist structuralism is dead.*
5:05 – 5:25 **Byeong-Uk Yi,** *The language and logic of plurals.*
5:30 – 5:50 **Frank Wroblewski,** *Completing classical logic.*

Session II-B: Monday, March 22 in Center Hall, Room 217B

4:15 – 4:35 **Yi Zhang,** *A problem of E. van Douwen and A. Miller.*
4:40 – 5:00 **Amir Leshem,** $0^{\#}$ *and elementary end extensions of* V_κ.
5:05 – 5:25 **Doug Burke and Garvin Melles*,** *Generalized Levy-Shoenfield absoluteness.*
5:30 – 5:50 **Mark Burgin,** *Algorithmic problems for super-recursive algorithms.*

Session II-C: Monday, March 22 in Center Hall, Room 218

4:15 – 4:35 **Jouko Väänänen,** *Quasi-finite model theory.*
4:40 – 5:00 **Matthias Baaz and Richard Zach*,** *Infinite-valued Gödel logics.*
5:05 – 5:25 **Norman Danner* and Daniel Leivant,** *Stratified polymorphism and primitive recursion.*
5:30 – 5:50 **Andrew Arana,** *Degrees of n-diagrams of nonstandard models of arithmetic.*

Abstracts presented by title:
Toshiyasu Arai, *Epsilon substitution method for theories of jump hierarchies.*
John Corcoran, *Logical form of quantifier phrases: Quantifier-sortal-variable.*
Billy Joe Lucas, *The logic of purely epistemic obligation.*
Albert Mullin, *Properties of recursive sequences.*
Cyrus Nourani, *Non-monotonic model culmination.*
Ralf Schindler, *Remarks on coding into $L(R)$.*