

ASSOCIATION FOR SYMBOLIC LOGIC
2004-05 WINTER MEETING

Atlanta Marriott Marquis
Atlanta, Georgia
January 7-8, 2005

Program committee: Akihiro Kanamori (Chair), Renling Jin, Alexandra Shlapentokh

The registration desk for the Joint Mathematics Meeting will be located on the exhibit level of the Hyatt Regency, just outside the grand hall where the exhibits will be. All ASL meeting participants are urged to register.

The Joint Mathematics Meetings includes the AMS/ASL co-sponsored Special Session on **Reverse Mathematics** on Wednesday, January 5, and Thursday, January 6, at the Hyatt Regency Ballroom V. The schedule for this Special Session appears on page 3 of this program.

The Joint Mathematics Meetings also includes the AMS/ASL co-sponsored Panel Discussion on **The Continuum Hypothesis Revisited: New Perspectives** on Thursday, January 6, 10:30 – 12:00 PM, at Hyatt Regency Ballroom VII. Details appear on page 4 of this program.

Also of interest is a subsession of the AMS-MAA-MER Special Session on Mathematics and Education Reform, II (Code: SS 2A): **Mathematical Logic in the Undergraduate Curriculum**.

All talks in the ASL meeting will be held in the Consulate Room of the Atlanta Marriott Marquis.

The ASL Reception will take place on Friday, January 7, 6:00 - 8:00 PM, in the Magnolia Room of the Atlanta Marriott Marquis.

FRIDAY, JANUARY 7

Morning

9:00 – 9:50 Invited Lecture: **Joseph Milet** (University of Chicago), *Partition theorems and computability theory*.

FRIDAY, JANUARY 7

Afternoon

- 1:20 – 2:10 Invited Lecture: **W. Hugh Woodin** (University of California at Berkeley), *Structural equivalences for the determinacy of real games.*
2:30 – 5:45 Contributed Talks.
6:00 – 8:00 ASL Reception in the Magnolia Room, Atlanta Marriott Marquis.

SATURDAY, JANUARY 8

Morning

- 9:00 – 9:50 Invited Lecture: **Tetsuya Ishii** (University of Kansas, Lawrence), *The non-stationary ideal and club guessing ideals.*
10:05 – 10:55 Invited Lecture: **Bjorn Poonen** (University of California at Berkeley), *Extensions of Hilbert's Tenth Problem.*

Afternoon

- 1:20 – 2:10 Invited Lecture: **Andres Caicedo** (Institut für formale Logik, Vienna), *Projective well-orderings of the reals.*
2:25 – 3:15 Invited Lecture: **Matthias Aschenbrenner** (University of Illinois at Chicago), *Asymptotic differential algebra.*

CONTRIBUTED TALKS

Friday, January 7

- 2:30 – 2:50 **Wesley Calvert***, **Valentina Harizanov**, **Julia F. Knight**, **Sara Miller**, *Description and comparison of computable structures.*
2:55 – 3:15 **Moses Klein**, *Lusin sets, free abelian groups, and homeomorphisms of the Baer-Specker group.*
3:20 – 3:40 **Robert Mignone**, *Closed Subsets of stationary sets in P omega-one omega-two.*
3:45 – 4:05 **Y. Firat Celikler**, *Results in geometry of D -semianalytic and subanalytic sets over Non-Archimedean fields.*
4:10 – 4:30 **Robert Lubarsky**, *CZF + Full Separation is equiconsistent with Second Order Arithmetic.*
4:35 – 4:55 **Neil Tennant**, *The Gardenfors Impossibility Theorem does not show that genuine belief-revision functions cannot be monotonic.*
5:00 – 5:20 **Dolph Ulrich**, *On the existence of a single axiom for implicational R -mingle.*
5:25 – 5:45 **Dennis Cudia**, *Sensitivity and specificity of the genetic code.*

AMS-ASL SPECIAL SESSION

Reverse Mathematics

Organizers: Jeff L. Hirst and Reed Solomon

Hyatt Regency Ballroom V

Wednesday and Thursday, January 5 and 6, 2005

Wednesday, January 5

- 8:00 – 8:50 **Douglas K. Brown**, (Penn State - Altoona College), *An introduction to reverse mathematics.*
- 9:00 – 9:20 **Douglas Cenzer*** (University of Florida) and **Jeffrey B. Remmel** (University of California, San Diego), *Proof-theoretic strength of the Stable Marriage Theorem.*
- 9:30 – 9:50 **Timothy H. McNicholl*** (University of Dallas) and **Jeff L. Hirst** (Appalachian State University), *Ramsey Theory on trees.*
- 10:00 – 10:20 **Denis R. Hirschfeld**, (University of Chicago), *Degrees of infinite homogeneous sets for computable stable colorings of pairs.*
- 10:30 – 10:50 **Barbara F. Csima** (Cornell University), **Denis R. Hirschfeld** (University of Chicago), and **Richard A. Shore*** (Cornell University), *The atomic model theorem.*

Thursday, January 6

- 8:00 – 8:20 **Ksenija Simic**, (University of Arizona), *Defining products of L_p functions in subsystems of second-order arithmetic.*
- 8:30 – 8:50 **Natasha L. Dobrinen*** (University of Vienna) and **Stephen G. Simpson** (Pennsylvania State University), *Almost everywhere domination and the reverse mathematics of measure theory.*
- 9:00 – 9:50 **Stephen G. Simpson**, (Pennsylvania State University), *Reverse topology.*
- 10:00 – 10:20 **Carl Mummert**, (Pennsylvania State University), *Representing second countable topological spaces in second-order arithmetic.*
- 1:00 – 1:50 **Harvey M. Friedman**, (Ohio State University), *RM coding theory.*
- 2:00 – 2:20 **Antonio Montalban**, (Cornell University), *On the proof theoretic strength of Jullien's results.*
- 2:30 – 2:50 **Noam Greenberg*** (University of Notre Dame) and **Antonio Montalban** (Cornell University), *Superatomic Boolean algebras and ATR_0 .*
- 3:00 – 3:20 **Peter Cholak*** (University of Notre Dame), **Alberto Marcone** (Universita di Udine, Italy), and **Reed Solomon** (University of Connecticut), *Reverse mathematics and the equivalence of definitions for well and better quasi-orders.*
- 3:30 – 3:50 **Alberto Marcone**, (Universita di Udine, Italy), *Finite better quasi orders.*

AMS-ASL PANEL DISCUSSION

The Continuum Hypothesis Revisited: New Perspectives
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Moderator: Keith Devlin

Hyatt Regency Ballroom VII

Thursday Morning, January 6, 2005

10:30 – 12:00 Panelists: **Paul J. Cohen** (Stanford University), **Donald A. Martin** (University of California Los Angeles), **W. Hugh Woodin** (University of California Berkeley).