

ACL2 Workshop 2007

A COMPUTATIONAL LOGIC



ACL2

APPLICATIVE COMMON LISP

ORGANIZATION

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Ruben Gamboa, U. of Wyoming
 Jun Sawada, IBM
 John Cowles, U. of Wyoming

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LOCATION

Hosted by FMCAD
 November 15-16, 2007
 Renaissance Hotel
 Austin, TX USA

International Workshop on the ACL2 Theorem Prover and its Applications

<http://www.cs.uwyo.edu/~ruben/acl2-07>

ACL2 2007 is the major technical forum for users of the ACL2 theorem proving system and is the seventh in a series of workshops that occur approximately every 18 months. ACL2 is an industrial-strength automated reasoning system that is part of the Boyer-Moore family of theorem provers, for which its authors received the 2005 ACM Software System Award.

Invited Talks

- ★Natarajan Shankar, SRI International, Mechanized Metamathematics Revisited
- ★Jeff Kodosky, National Instruments, A Vision for Verification in LabVIEW

Advance Program

Wednesday, November 14

6:00-9:00 Banquet

Thursday, November 15

9:00-9:30 Hacking and Extending ACL2

Peter Dillinger, Matt Kaufmann, Pete Manolios

9:30-10:00 Pythia: Automatic Generation of Counterexamples for ACL2 using Alloy
 Alexander Spiridonov, Sarfraz Khurshid

10:00-10:20 Backtracking and Induction in ACL2

John Erickson

10:40-11:00 The While-language Challenge: First Progress

John Cowles, David Greve, William Young

11:00-11:20 Building Lemmas Using Examples

Gabriel Infante-Lopez

1:00-2:00 Mechanized Metamathematics Revisited (Invited Talk)

Natarajan Shankar

2:20-2:40 Formalizing Simplicial Topology in ACL2

Mirian Andres, Laureano Lamban, Julio Rubio, Jose Luis Ruiz-Reina

2:40-3:10 Formal Specification and Validation of Minimal Routing Algorithms for the 2D Mesh

Julien Schmaltz

3:30-4:00 Circuit Specification, Abstraction, and Reverse Engineering

Warren Hunt, Robert S. Boyer

4:00-4:20 Defining a LISP Interpreter in a Logic of Total Functions

Mike Gordon

Friday, November 16

9:00-9:30 ACL2 for Freshmen: First Experiences

Carl Eastlund, Dale Vaillancourt, Matthias Felleisen

9:30-10:00 Evolution from Debugging to Verification

Frank Rimlinger

10:00-10:30 Scalable Normalization for Heap Manipulating Functions

David Greve

1:00-2:00 A Vision for Verification in LabVIEW (Invited Talk)

Jeff Kodosky

The program also features recent news about ACL2 and the popular Rump Sessions.

Important Dates

Early Registration:	October 19, 2007
Hotel:	October 19, 2007
Workshop:	November 15-16, 2007