Computational Logic, Inc.
1994 Research Review Agenda

WEDNESDAY, APRIL 20

8:00 AM	REGISTRATION Continental Breakfast		
		INTRODUCTION	
8:30 AM	Good	Mathematical Modeling of Digital Systems	1
		FOUNDATIONS	
9:00 AM	Moore	A Computational Logic for an Applicative Core Language (Acl2)	2
10:00 AM	Break		
10:30 AM	Kaufmann	Acl2 ... Continued	3
11:30 AM	Cowles (UWyoming)	Reusable Libraries for Acl2	4
12:00 PM	Akers	Static Type Checking for the Acl2 Logic	5
12:30 PM	Lunch		
1:30 PM	Huet (INRIA)	An Overview of the Coq Proof Assistant and its Application to Program Validation and Protocol Verification	6
2:00 PM	Boyer	QED: Towards a Mechanically Proof-Checked Encyclopedia of Mathematics	7
		LANGUAGES	
2:15 PM	Flatau	A Verified Implementation of an Applicative Language with Dynamic Storage Allocation	8
2:45 PM	Smith,M	Modeling Ada	9
3:30 PM	Break		
4:00 PM	Kaufmann	A Substitute for VCGs in Proving Properties of Programs	10
4:45 PM	Akers	Toward a Mathematical Semantics for C	11
5:00 PM	Yu(DEC)	Reusability of an MC68020 Model in Modeling the DEC Alpha	12
5:30 PM	Adjourn		

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THURSDAY, APRIL 21

8:00 AM	REGISTRATION Continental Breakfast		
		HARDWARE	
8:30 AM	Hunt	Identifying Approaches to the Formalization of DSPs	13
9:00 AM	Albin	68020 Model Validation	14
9:15 AM	Smith,L	FM9001 Model Validation	15
9:30 AM	Hunt	Designing a VHDL Simulator in Acl2	16
10:15 AM	Break		
10:45 AM	Russinoff	Modeling Synchronous and Asynchronous Behavior in VHDL	17
11:45 AM	Hunt & Greenwood (Motorola)	Modeling a Motorola DSP Design	18 19
12:15 PM	Lunch		
		CONTROLLERS	
1:15 PM	Wilding	A Verified Scheduling Theorem	20
1:30 PM	Wilding	Toward Verified Real-Time Applications	21
2:00 PM	Carranza	Verifying the Behavior of a Fuzzy Logic Controller	22
2:30 PM	Young	Modeling a Real-Time Railroad Gate Controller	23
3:00 PM	Break		
		SYSTEMS SOFTWARE	
3:30 PM	Cohen	Proving a Separation Kernel	24
4:00 PM	Bevier	A Mathematical Specification for the Mach Kernel	25
4:45 PM	Smith,L	Testing the Mach Kernel for Specification Compliance	26
5:00 PM	Bevier	Security Analysis of Kernel Models	27
5:30 PM	Adjourn		

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FRIDAY, APRIL 22

		MODELING A MOTOROLA DSP DESIGN ** PROPRIETARY SESSION **	
8:30 AM	Hunt	Introduction	28
8:45 AM	Saydjari (USGov)	A Custom Netlister	29
9:05 AM	Greenwood (Motorola)	DSP Design	30
9:50 AM	Break		
10:20 AM	Harrison (Motorola)	Signal Processing Workstation (SPW) Demonstration	31
10:50 AM	Brock	Modeling the DSP Design	32
11:35 AM	Albin	Verifying a Reciprocal Algorithm	33
11:55 AM	Hunt	Verifying an FFT Implementation	34
12:15 PM	Adjourn		