

IBM Haifa Verification Conference – Program

October 23, 2007

9:00 Registration

9:15 Opening Remarks
Oded Cohn, IBM Haifa Research
Lab

Keynote Talk

Session chair: Moshe Levinger

9:45 Microprocessor Verification Challenges
Bob Bentley, Intel Corporation

10:45 Break

Session I: Hardware Verification

Session chair: Avi Ziv

11:15 Invited talk: Out of Steam? - From "Hardware Verification Crisis" to "Crisis of Verification" Wolfgang Roesner, IBM Austin

12:00 On the Characterization of Until as a Fixed Point Under Clocked Semantics
Dana Fisman

12:30 Reactivity in SystemC Transaction-Level Models Frederic Doucet, R.K. Shyamasundar, Ingolf H. Krueger, Saurabh Joshi, and Rajesh K. Gupta 13:00 Lunch

Session II: Model Checking Session chair: Bob Kurshan

14:15 Verifying Parameterised Hardware Designs via Counter Automata Ales Smrcka and Tomas Vojnar

14:45 How Fast and Fat is your Probabilistic Model Checker? David N. Jansen, Joost-Pieter Katoen, Marcel Oldenkamp, Mariëlle Stoelinga, and Ivan Zapreev

15:15 Break

Session III: Dynamic Hardware Verification Session chair: Bob Bentley

15:45 Constraint Patterns and Search Procedures for CP-Based Random Test Generation Anna Moss

16:15 Using Virtual Coverage to Hit Hard-To-Reach Events
Laurent Fournier and Avi Ziv

16:45 Cocktail party









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October 24, 2007

Session I: HVC Award Session chair: Roderick Bloem

9:15 Best Paper and HVC Award Presentations

9:30 HVC Award Winner: Symbolic Execution and Model Checking for Testing

Corina Pasareanu, NASA Ames Research Center

10:30 Speed Networking Session

Session II: Merging Formal and Testing Session chair: Laurent Fournier

11:15 Invited talk: Simulation vs. Formal:
Absorb what is useful; reject what
is useless
(The Bruce Lee Approach to
Verification)

Alan Hu, Univ. of British Columbia

12:00 Test Case Generation for Ultimately Periodic Paths Saddek Bensalem, Doron Peled, Hongyang Qu, Stavros Tripakis, and Lenore Zuck

12:30 Dynamic Testing via Automata Learning Harald Raffelt, Bernhard Steffen, and Tiziana Margaria **13:00** Lunch

Session III: Large Systems Verification Session chair: Alan Hu

14:15 Invited talk: Scaling Commercial Verification to Larger Systems Robert Kurshan, Cadence

15:30 Excursion









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October 25, 2007

Keynote Talk

Session chair: Sharon Barner

9:30 From Hardware Verification to Software Verification: Re-use and Re-learn

Aarti Gupta, NEC Labs America

10:30 Break

Formal Verification for Software

Session chair: Aarti Gupta

11:00 On the Architecture of System Verification Environments

Mark A. Hillebrand and Wolfgang

J. Paul

11:30 Exploiting Shared Structure in Software Verification Conditions Domagoj Babic and Alan J. Hu

12:00 Delayed Nondeterminism in Model Checking Embedded Systems
Assembly Code
Thomas Noll and Bastian Schlich

12:30 A Complete Bounded Model
Checking Algorithm for Pushdown
Systems
Gerard Basler, Daniel Kroening,
and Georg Weissenbacher

13:00 Lunch

Software Bugs

Session chair: Eitan Farchi

14:15 Invited talk: Where Do Bugs Come From?

Andreas Zeller, Saarland University

15:15 Locating Regression Bugs
Dor Nir, Shmuel Tyszberowicz, and
Amiram Yehudai,

15:45 Break

Software Testing

Session chair: Shmuel Ur

16:15 The Advantages of Post-link Code Coverage Orna Raz, Moshe Klausner, Nitzan Peleg, Gad Haber, Eitan Farchi, Shachar Fienblit, Yakov Filiarsky, Shay Gammer, and Sergey Novikov

16:45 GenUTest: A Unit Test and Mock Aspect Generation Tool Benny Pasternak, Shmuel Tyszberowicz, and Amiram Yehudai

17:15 Closing Remarks





