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Hardware and Software: Verification and Testing

5th International Haifa Verification Conference, HVC 2009
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Revised Selected Papers



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Preface

This volume holds the proceedings of HVC 2009. The Haifa Verification Conference is unique in bringing together research communities from formal and dynamic verification of hardware and software systems. It thus encourages both the recognition of common core questions and a healthy exchange of ideas and methods across domains. The attendees at HVC come from academia, industrial research labs, and industry, resulting in a broad range of perspectives.

The program for this year was chosen from 23 submissions. While we faced an unexpected drop in submissions, the resulting program was of a high quality. The paper by Anna Moss and Boris Gutkovich on “Functional Test Generation with Distribution Constraints” was chosen for the Best Paper Award. The HVC Award, given to the most promising contribution in the fields of software and hardware verification and test in the past five years, was given to Patrice Godefroid, Nils Klarlund, and Koushik Sen for their work on “DART: Directed Automated Random Testing.”

The program included an outstanding set of keynote and invited talks. David Harel from the Weizmann Institute of Science spoke on “Can We Verify an Elephant?”; Mark Harman from CREST centre at King’s College London, spoke on “The SBSE Approach to Automated Optimization of Verification and Testing;” and Harry Foster from Mentor Graphics, spoke on “Pain, Possibilities, and Prescriptions Industry Trends in Advanced Functional Verification.” Tutorials were organized on “Post-Silicon Validation and Debugging,” with Amir Nahir and Alon Adir (IBM), Rand Grey and Shmuel Branski (Intel), and Brad Quinton (University of British Columbia); “Satisfiability Modulo Theories” with Ofer Strichman (Technion); and “Constraint Satisfaction” with Eyal Bin (IBM). We would like to thank the speakers for putting together interesting and informative talks.

The conference was held at IBM’s Research Labs at Haifa. We would like to thank the many people who were involved; in particular, Vered Aharon, who made sure that the conference ran smoothly each day. The Program Committee worked hard to put together the conference program; we thank them for their efforts. The HVC Organizing Committee provided considerable help and perspective. The HVC Award Committee, which was chaired by Sharad Malik (Princeton) and included Holger Hermanns (Saarland), Sarfraz Khurshid (University of Texas, Austin), Natarajan Shankar (SRI), and Helmut Veith (TU Darmstadt), did a wonderful job in picking a particularly deserving paper for the award among the many good candidates. Finally, we would like to thank all those who participated in the conference and made it an exciting and enjoyable event.

December 2010

Avi Ziv
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Table of Contents

I Keynote and Invited Talks

Can We Verify an Elephant?	1
<i>David Harel</i>	
Pain, Possibilities, and Prescriptions Industry Trends in Advanced Functional Verification.....	2
<i>Harry Foster</i>	
The SBSE Approach to Automated Optimization of Verification and Testing	3
<i>Mark Harman</i>	
DART: Directed Automated Random Testing.....	4
<i>Koushik Sen</i>	

II Research Papers

Reduction of Interrupt Handler Executions for Model Checking Embedded Software	5
<i>Bastian Schlich, Thomas Noll, Jörg Brauer, and Lucas Brutschy</i>	
Diagnosability of Pushdown Systems	21
<i>Christophe Morvan and Sophie Pinchinat</i>	
Functional Test Generation with Distribution Constraints	34
<i>Anna Moss and Boris Gutkovich</i>	
An Explanation-Based Constraint Debugger	52
<i>Aaron Rich, Giora Alexandron, and Reuven Naveh</i>	
Evaluating Workloads Using Multi-comparative Functional Coverage ...	57
<i>Yoram Adler, Shmuel Ur, and Dale Blue</i>	
Reasoning about Finite-State Switched Systems.....	71
<i>Dana Fisman and Orna Kupferman</i>	
Dataflow Analysis for Properties of Aspect Systems	87
<i>Yevgenia Alperin-Tsimmerman and Shmuel Katz</i>	
Bisimulation Minimisations for Boolean Equation Systems	102
<i>Jeroen J.A. Keiren and Tim A.C. Willemse</i>	

Synthesizing Solutions to the Leader Election Problem Using Model Checking and Genetic Programming	117
<i>Gal Katz and Doron Peled</i>	
Stacking-Based Context-Sensitive Points-to Analysis for Java	133
<i>Xin Li and Mizuhito Ogawa</i>	
An Interpolating Decision Procedure for Transitive Relations with Uninterpreted Functions	150
<i>Daniel Kroening and Georg Weissenbacher</i>	
Author Index	169