Table of Contents

Invited Keynotes

From Model Checking to a Temporal Proof
Doron Peled (Bell Laboratories), Lenore Zuck (New York University) 1

Model Checking if Your Life Depends on It:
A View from Intel’s Trenches
Rob Gerth (Intel corp.) 15

Technical Papers and Tool Reports

Model-Checking Infinite State-Space Systems with Fine-Grained
Abstractions Using SPIN
Marsha Chechik, Benet Devereux, Arie Gurfinkel (University of Toronto) 16

Implementing LTL Model Checking with Net Unfoldings
Javier Esparza (Technische Universität München), Keijo Heljanko (Helsinki University of Technology) 37

Directed Explicit Model Checking with HSF-SPIN
Stefan Edelkamp, Alberto Lluch Lafuente, Stefan Leue (Albert-Ludwigs-Universität) 57

Addressing Dynamic Issues of Program Model Checking
Flavio Lerda, Willem Visser (NASA Ames Research Center) 80

Automatically Validating Temporal Safety Properties of Interfaces
Thomas Ball, Srinam K. Rajamani (Microsoft Research) 103

Verification Experiments on the MASCARA Protocol
Guoping Jia, Susanne Graf (VERIMAG) 123

Using SPIN for Feature Interaction Analysis – A Case Study
Muffy Calder, Alice Miller (University of Glasgow) 143

Behavioural Analysis of the Enterprise JavaBeans™ Component
Architecture
Shin Nakajima (NEC Corporation), Tetsuo Tanai (University of Tokyo) 163

p2b: A Translation Utility for Linking Promela and Symbolic Model
Checking (Tool Paper)
Michael Baldamus, Jochen Schröder-Babo (University of Karlsruhe) 183
Transformations for Model Checking Distributed Java Programs .......... 192
Scott D. Stoller, Yanhong A. Liu (SUNY at Stony Brook)

Distributed LTL Model-Checking in SPIN ........................................ 200
Jiri Barnat, Lubos Brim (Masaryk University Brno), Jitka Strbrná
(University of Pennsylvania)

Parallel State Space Construction for Model-Checking ..................... 217
Hubert Garavel, Radu Mateescu, Irina Smarandache
(INRIA Rhône-Alpes)

Model Checking Systems of Replicated Processes with Spin ............ 235
Fabrice Derepas (Nortel Networks), Paul Gastin (Université Paris)

A SPIN-Based Model Checker for Telecommunication Protocols .......... 252
Vivek K. Shanbhag, K. Gopinath (Indian Institute of Science)

Modeling and Verifying a Price Model for Congestion Control in Computer
Networks Using Promela/Spin ......................................................... 272
Clement Yuen, Wei Tjioe (University of Toronto)

Invited Project Summaries

A Model Checking Project at Philips Research ........................... 288
Leszek Holenderski (Philips Research)

Applications of Model Checking at Honeywell Laboratories ............ 296
Darren Cofer, Eric Engstrom, Robert Goldman, David Musliner,
Steve Vestal (Honeywell Laboratories)

Coarse-Granular Model Checking in Practice .......................... 304
Bernhard Steffen, Tiziana Margaria, Volker Braun
(MetaFrame Technologies, Universität Dortmund)

Author Index .............................................................................. 313