

# Table of Contents

## Invited Talks

Combining Theorem Proving and Model Checking through Symbolic Analysis .....	1
<i>Natarajan Shankar</i>	
Verification Is Experimentation! .....	17
<i>Ed Brinksma</i>	
Compositional Performance Analysis Using Probabilistic I/O Automata .....	25
<i>Eugene W. Stark</i>	
Formal Models for Communication-Based Design .....	29
<i>Alberto Sangiovanni-Vincentelli, Marco Sgroi and Luciano Lavagno</i>	

## Invited Tutorials

Programming Access Control: The KLAIM Experience .....	48
<i>Rocco De Nicola, GianLuigi Ferrari and Rosario Pugliese</i>	
Exploiting Hierarchical Structure for Efficient Formal Verification .....	66
<i>Rajeev Alur</i>	
From Process Calculi to Process Frameworks .....	69
<i>Philippa Gardner</i>	
Verification Using Tabled Logic Programming .....	89
<i>C. R. Ramakrishnan</i>	

## Accepted Papers

Open Systems in Reactive Environments: Control and Synthesis .....	92
<i>Orna Kupferman, P. Madhusudan, P. S. Thiagarajan and Moshe Y. Vardi</i>	
Model Checking with Finite Complete Prefixes Is PSPACE-Complete .....	108
<i>Keijo Heljanko</i>	
Verifying Quantitative Properties of Continuous Probabilistic Timed Automata .....	123
<i>Marta Kwiatkowska, Gethin Norman, Roberto Segala and Jeremy Sproston</i>	
The Impressive Power of Stopwatches .....	138
<i>Franck Cassez and Kim Larsen</i>	

Optimizing Büchi Automata .....	153
<i>Kousha Etessami and Gerard J. Holzmann</i>	
Generalized Model Checking: Reasoning about Partial State Spaces .....	168
<i>Glenn Bruns and Patrice Godefroid</i>	
Reachability Analysis for Some Models of Infinite-State Transition Systems .....	183
<i>Oscar H. Ibarra, Tevfik Bultan and Jianwen Su</i>	
Process Spaces .....	199
<i>Radu Negulescu</i>	
Failure Semantics for the Exchange of Information in Multi-Agent Systems .....	214
<i>Frank S. de Boer, Rogier M. van Eijk, Wiebe van der Hoek and John-Jules Ch. Meyer</i>	
Proof-Outlines for Threads in Java .....	229
<i>Erika Ábrahám-Mumm and Frank S. de Boer</i>	
Deriving Bisimulation Congruences for Reactive Systems .....	243
<i>James J. Leifer and Robin Milner</i>	
Bisimilarity Congruences for Open Terms and Term Graphs via Tile Logic .....	259
<i>Roberto Bruni, David de Frutos-Escrig, Narciso Martí-Oliet and Ugo Montanari</i>	
Process Languages for Rooted Eager Bisimulation .....	275
<i>Irek Ulidowski and Shoji Yuen</i>	
Action Contraction .....	290
<i>Arend Rensink</i>	
A Theory of Testing for Markovian Processes .....	305
<i>Marco Bernardo and Rance Cleaveland</i>	
Reasoning about Probabilistic Lossy Channel Systems .....	320
<i>Parosh Abdulla, Christel Baier, Purushothaman Iyer and Bengt Jonsson</i>	
Weak Bisimulation for Probabilistic Systems .....	334
<i>Anna Philippou, Insup Lee and Oleg Sokolsky</i>	
Nondeterminism and Probabilistic Choice: Obeying the Laws .....	350
<i>Michael Mislove</i>	
Secrecy and Group Creation .....	365
<i>Luca Cardelli, Giorgio Ghelli and Andrew D. Gordon</i>	
On the Reachability Problem in Cryptographic Protocols .....	380
<i>Roberto M. Amadio and Denis Lugiez</i>	
Secure Information Flow for Concurrent Processes .....	395
<i>Jan Jürjens</i>	

LP Deadlock Checking Using Partial Order Dependencies .....	410
<i>Victor Khomenko and Maciej Koutny</i>	
Pomsets for Local Trace Languages – Recognizability, Logic & Petri Nets .....	426
<i>Dietrich Kuske and Rémi Morin</i>	
Functionial Concurrent Semantics for Petri Nets with Read and Inhibitor Arcs .....	442
<i>Paolo Baldan, Nadia Busi, Andrea Corradini and G. Michele Pinna</i>	
The Control of Synchronous Systems .....	458
<i>Luca de Alfaro, Thomas A. Henzinger and Freddy Y. C. Mang</i>	
Typing Non-uniform Concurrent Objects .....	474
<i>António Ravara and Vasco T. Vasconcelos</i>	
An Implicitly-Typed Deadlock-Free Process Calculus .....	489
<i>Naoki Kobayashi, Shin Saito and Eijiro Sumii</i>	
Typed Mobile Objects .....	504
<i>Michele Bugliesi, Giuseppe Castagna and Silvia Crafa</i>	
Synthesizing Distributed Finite-State Systems from MSCs .....	521
<i>Madhavan Mukund, K. Narayan Kumar and Milind Sohoni</i>	
Emptiness Is Decidable for Asynchronous Cellular Machines .....	536
<i>Dietrich Kuske</i>	
Revisiting Safety and Liveness in the Context of Failures .....	552
<i>Bernadette Charron-Bost, Sam Toueg and Anindya Basu</i>	
Well-Abstracted Transition Systems .....	566
<i>Alain Finkel, Purushothaman Iyer and Grégoire Sutre</i>	
A Unifying Approach to Data-Independence .....	581
<i>Ranko Lazic and David Nowak</i>	
Chi Calculus with Mismatch .....	596
<i>Yuxi Fu and Zhenrong Yang</i>	
<b>Author Index .....</b>	<b>611</b>