

María del Mar Gallardo · Pedro Merino (Eds.)

Model Checking Software

25th International Symposium, SPIN 2018
Malaga, Spain, June 20–22, 2018
Proceedings

Contents

Tutorial and Invited Papers

Software Model Checking for Mobile Security – Collusion Detection in \mathbb{K}	3
<i>Irina Măriuca Asăvoae, Hoang Nga Nguyen, and Markus Roggenbach</i>	
Efficient Runtime Verification of First-Order Temporal Properties.	26
<i>Klaus Havelund and Doron Peled</i>	
Program Verification with Separation Logic	48
<i>Radu Iosif</i>	

Regular Papers

Petri Net Reductions for Counting Markings	65
<i>Bernard Berthomieu, Didier Le Botlan, and Silvano Dal Zilio</i>	
Improving Generalization in Software IC3	85
<i>Tim Lange, Frederick Prinz, Martin R. Neuhäuser, Thomas Noll, and Joost-Pieter Katoen</i>	
Star-Topology Decoupling in SPIN	103
<i>Daniel Gnad, Patrick Dubbert, Alberto Lluch Lafuente, and Jörg Hoffmann</i>	
Joint Forces for Memory Safety Checking	115
<i>Marek Chalupa, Jan Strejček, and Martina Vitovská</i>	
Model-Checking HyperLTL for Pushdown Systems.	133
<i>Adrien Pommellet and Tayssir Touili</i>	
A Branching Time Variant of CaRet	153
<i>Jens Oliver Gutsfeld, Markus Müller-Olm, and Benedikt Nordhoff</i>	
Control Strategies for Off-Line Testing of Timed Systems	171
<i>Léo Henry, Thierry Jéron, and Nicolas Markey</i>	
An Extension of TRIANGLE Testbed with Model-Based Testing	190
<i>Laura Panizo, Almudena Díaz, and Bruno García</i>	
Local Data Race Freedom with Non-multi-copy Atomicity.	196
<i>Tatsuya Abe</i>	

A Comparative Study of Decision Diagrams for Real-Time Model Checking	216
<i>Omar Al-Bataineh, Mark Reynolds, and David Rosenblum</i>	
Lazy Reachability Checking for Timed Automata with Discrete Variables . . .	235
<i>Tamás Tóth and István Majzik</i>	
From SysML to Model Checkers via Model Transformation.	255
<i>Martin Kölbl, Stefan Leue, and Hargurbir Singh</i>	
Genetic Synthesis of Concurrent Code Using Model Checking and Statistical Model Checking.	275
<i>Lei Bu, Doron Peled, Dachuan Shen, and Yuan Zhuang</i>	
Quantitative Model Checking for a Controller Design	292
<i>YoungMin Kwon and Eunhee Kim</i>	
Modelling Without a Modelling Language	308
<i>Antti Valmari and Vesa Lappalainen</i>	
Context-Updates Analysis and Refinement in Chisel	328
<i>Irina Măriuca Asăvoae, Mihail Asăvoae, and Adrián Riesco</i>	
Author Index	347