

Contents

Invited Papers

Reasoning about Separation Using Abstraction and Reification	3
<i>Cliff B. Jones and Nisansala Yatapanage</i>	
An Interface Theory for the Internet of Things	20
<i>Marten Lohstroh and Edward A. Lee</i>	

Program Verification

Learning Assertions to Verify Linked-List Programs	37
<i>Jan Tobias Mühlberg, David H. White, Mike Dodds, Gerald Lüttgen, and Frank Piessens</i>	
Verifying Protocol Implementations by Augmenting Existing Cryptographic Libraries with Specifications	53
<i>Gijs Vanspauwen and Bart Jacobs</i>	
Specification and Verification of Atomic Operations in GPGPU Programs . . .	69
<i>Afshin Amighi, Saeed Darabi, Stefan Blom, and Marieke Huisman</i>	
History-Based Verification of Functional Behaviour of Concurrent Programs	84
<i>Stefan Blom, Marieke Huisman, and Marina Zaharieva-Stojanovski</i>	
Investigating Instrumentation Techniques for ESB Runtime Verification	99
<i>Christian Colombo, Gabriel Dimech, and Adrian Francalanza</i>	
Towards Domain Refinement for UML/OCL Bounded Verification	108
<i>Robert Clarisó, Carlos A. González, and Jordi Cabot</i>	

Testing

Efficient Testing of Different Loop Paths	117
<i>Stefan Huster, Sebastian Burg, Hanno Eichelberger, Jo Laufenberg, Jürgen Ruf, Thomas Kropf, and Wolfgang Rosenstiel</i>	
Model-Based Robustness Testing in EVENT-B Using Mutation	132
<i>Aymerick Savary, Marc Frappier, Michael Leuschel, and Jean-Louis Lanet</i>	

On the Testability of Properties Patterns.	148
<i>Simone Hanazumi and Ana C.V. de Melo</i>	

Certification

Speed Up Configurable Certificate Validation by Certificate Reduction and Partitioning	159
<i>Marie-Christine Jakobs</i>	

Formal Analysis of Proactive, Distributed Routing	175
<i>Mojgan Kamali, Peter Höfner, Maryam Kamali, and Luigia Petre</i>	

Certification of Distributed Algorithms Solving Problems with Optimal Substructure	190
<i>Kim Völlinger and Wolfgang Reisig</i>	

Formal Specification and Proof

From Failure to Proof: The ProB Disprover for B and Event-B	199
<i>Sebastian Krings, Jens Bendisposto, and Michael Leuschel</i>	

Formalizing a Secure Foreign Function Interface.	215
<i>Adriaan Larmuseau and Dave Clarke</i>	

A Formal Study of Backward Compatible Dynamic Software Updates.	231
<i>Jun Shen and Rida A. Bazzi</i>	

Testing and Model Checking

Memory Management Test-Case Generation of C Programs Using Bounded Model Checking	251
<i>Herbert Rocha, Raimundo Barreto, and Lucas Cordeiro</i>	

Techniques for Memory-Efficient Model Checking of C and C++ Code.	268
<i>Petr Ročkal, Vladimír Štill, and Jiří Barnat</i>	

NAT2TEST Tool: From Natural Language Requirements to Test Cases Based on CSP	283
<i>Gustavo Carvalho, Flávia Barros, Ana Carvalho, Ana Cavalcanti, Alexandre Mota, and Augusto Sampaio</i>	

Planning

Task Planning of Cyber-Human Systems	293
<i>Roykrong Sukkerd, David Garlan, and Reid Simmons</i>	

Generating None-Plans in Order to Find Plans	310
<i>Michał Knapik, Artur Niewiadomski, and Wojciech Penczek</i>	

Modelling and Model Transformation

Twitlang(er): Interactions Modeling Language (and Interpreter) for Twitter. . .	327
<i>Rocco De Nicola, Alessandro Maggi, Marinella Petrocchi,</i> <i>Angelo Spognardi, and Francesco Tiezzi</i>	

From Featured Transition Systems to Modal Transition Systems with Variability Constraints	344
<i>Maurice H. ter Beek, Ferruccio Damiani, Stefania Gnesi,</i> <i>Franco Mazzanti, and Luca Paolini</i>	

An Extensible Operational Semantics for UML Activity Diagrams	360
<i>Zamira Daw and Rance Cleaveland</i>	

Author Index	369
-------------------------------	-----

Software Engineering and Formal Methods
13th International Conference, SEFM 2015, York, UK,
September 7-11, 2015. Proceedings
Calinescu, R.; Rumpe, B. (Eds.)
2015, XI, 369 p. 84 illus., Softcover
ISBN: 978-3-319-22968-3