

# Contents

Distributed Analysis of the BMC Kind: Making It Fit the Tornado Supercomputer . . . . .	1
<i>Azat Abdullin, Daniil Stepanov, and Marat Akhin</i>	
Predicate Abstraction Based Configurable Method for Data Race Detection in Linux Kernel . . . . .	11
<i>Pavel Andrianov, Vadim Mutilin, and Alexey Khoroshilov</i>	
Extended Context-Free Grammars Parsing with Generalized LL . . . . .	24
<i>Artem Gorokhov and Semyon Grigorev</i>	
Defect Report Classification in Accordance with Areas of Testing. . . . .	38
<i>Anna Gromova</i>	
Technology and Tools for Developing Industrial Software Test Suites Based on Formal Models and Implementing Scalable Testing Process on Supercomputer . . . . .	51
<i>Vsevolod Kotlyarov, Pavel Drobintsev, Nikita Voinov, Ivan Selin, and Alexey Tolstoles</i>	
DI-Check: Dynamic Potential Deadlock Detection Tool for Java Programs . . .	64
<i>Nikita Koval, Dmitry Tsitelov, and Roman Elizarov</i>	
A Survey on Model-Based Testing Tools for Test Case Generation. . . . .	77
<i>Wenbin Li, Franck Le Gall, and Naum Spaseski</i>	
Functional Parser of Markdown Language Based on Monad Combining and Monoidal Source Stream Representation . . . . .	90
<i>Georgiy Lukyanov and Artem Pelenitsin</i>	
Simple Type-Based Alias Analysis for a VLIW Processor . . . . .	102
<i>Aleksey Markin and Alexandr Ermolitsky</i>	
5W+1H Static Analysis Report Quality Measure . . . . .	114
<i>Maxim Menshchikov and Timur Lepikhin</i>	
Layered Layouts for Software Systems Visualization Using Nested Petri Nets . . . . .	127
<i>Alexey A. Mitsyuk and Yaroslav V. Kotylev</i>	
Unity Application Testing Automation with Appium and Image Recognition . . . . .	139
<i>Maxim Mozgovoy and Evgeny Pyshkin</i>	

Compositional Process Model Synthesis Based on Interface Patterns . . . . .	151
<i>Roman A. Nesterov and Irina A. Lomazova</i>	
Using Functional Directives to Analyze Code Complexity . . . . .	163
<i>Daniel Rubio Bonilla and Colin W. Glass</i>	
Generating Cost-Aware Covering Arrays for Free . . . . .	170
<i>Mustafa Kemal Taş, Hanefi Mercan, Gülşen Demiröz, Kamer Kaya, and Cemal Yilmaz</i>	
Statically Checking Conventionality of Array Objects in JavaScript. . . . .	183
<i>Astrid Younang, Lunjin Lu, and Nabil Almashfi</i>	
A Survey of High-Performance Computing for Software Verification . . . . .	196
<i>Ilja Zakharov</i>	
<b>Author Index</b> . . . . .	209

Tools and Methods of Program Analysis

4th International Conference, TMPA 2017, Moscow,

Russia, March 3-4, 2017, Revised Selected Papers

Itsykson, V.; Scedrov, A.; Zakharov, V. (Eds.)

2018, XVIII, 209 p. 71 illus., Softcover

ISBN: 978-3-319-71733-3