Contents

DataMod

Separating Topological Noise from Features Using Persistent Entropy ........ 3
  Nieves Atienza, Rocio Gonzalez-Diaz, and Matteo Rucco

An Accelerated MapReduce-Based K-prototypes for Big Data ............... 13
  Mohamed Aymen Ben HajKacem, Chiheb-Eddine Ben N’cir,
  and Nadia Essoussi

Refinement Mining: Using Data to Sift Plausible Models .................. 26
  Antonio Cerone

Towards Platform Independent Database Modelling in Enterprise Systems ... 42
  Martyn Ellison, Radu Calinescu, and Richard F. Paige

AUDIO ERGO SUM: A Personal Data Model for Musical Preferences .......... 51
  Riccardo Guidotti, Giulio Rossetti, and Dino Pedreschi

A High-Level Model Checking Language with Compile-Time Pruning
of Local Variables ........................................................... 67
  Giovanni Pardini and Paolo Milazzo

Probabilistic Modelling of Station Locations in Bicycle-Sharing Systems ... 83
  Daniël Reijsbergen

GCM

On the Definition of Parallel Independence in the Algebraic Approaches
to Graph Transformation ..................................................... 101
  Andrea Corradini

Approximating Parikh Images for Generating Deterministic Graph Parsers . 112
  Frank Drewes, Berthold Hoffmann, and Mark Minas

SPO-Rewriting of Constrained Partial Algebras .......................... 129
  Michael Löwe

Attributed Graph Transformation via Rule Schemata:
Church-Rosser Theorem ...................................................... 145
  Ivaylo Hristakiev and Detlef Plump
HOFM

Visual Notation and Patterns for Abstract State Machines .................. 163
Paolo Arcaini, Silvia Bonfanti, Angelo Gargantini, and Elvinia Riccobene

Visualization of Formal Specifications for Understanding
and Debugging an Industrial DSL ............................................ 179
Ulyana Tikhonova, Maarten Manders, and Rimco Boudewijns

Spatio-Temporal Models for Formal Analysis and Property-Based Testing . . 196
Nasser Alzahrani, Maria Spichkova, and Jan Olaf Blech

Towards a Developer-Oriented Process for Verifying Behavioral Properties
in UML and OCL Models .......................................................... 207
Khanh-Hoang Doan, Martin Gogolla, and Frank Hilken

Model-Based Generation of Natural Language Specifications ............... 221
Phan Thu Nhat Vo and Maria Spichkova

Human-Oriented Formal Modelling of Human-Computer Interaction:
Practitioners’ and Students’ Perspectives .................................... 232
Antonio Cerone

“Boring Formal Methods” or “Sherlock Holmes Deduction Methods”? ...... 242
Maria Spichkova

Formal Model-Based Development in Industrial Automation
with Reactive Blocks ............................................................... 253
Peter Herrmann and Jan Olaf Blech

MELO

Computational Design Synthesis Using Model-Driven Engineering
and Constraint Programming ..................................................... 265
Raphael Chenouard, Chris Hartmann, Alain Bernard, and Emmanuel Mermoz

Incremental Consistency Checking of Heterogeneous Multimodels ......... 274
Zinovy Diskin and Harald König

Continuing a Benchmark for UML and OCL Design and Analysis Tools ... 289
Martin Gogolla and Jordi Cabot
An Experience Integrating Response-Time Analysis and Optimization with an MDE Strategy ........................................ 303
Juan M. Rivas, J. Javier Gutiérrez, Mario Aldea, César Cuevas,
Michael González Harbour, José Maria Drake, Julio L. Medina,
Laurent Rioux, Rafik Henia, and Nicolas Sordon
Towards Model-Based Optimisation: Using Domain Knowledge Explicitly. . . 317
Steffen Zschaler and Lawrence Mandow

SEMS

On the Emergence of Patterns for Spreadsheets Data Arrangements ........ 333
Ricardo Teixeira and Vasco Amaral
Towards an Automated Classification of Spreadsheets ....................... 346
Jorge Mendes, Kha N. Do, and João Saraiva
Programming Communication with the User in Multiplatform Spreadsheet Applications ........................................ 356
Jerzy Sikora, Jacek Sroka, and Jerzy Tyszkiewicz
Fragment-Based Diagnosis of Spreadsheets .................................. 372
Thomas Schmitz, Birgit Hofer, Dietmar Jannach, and Franz Wotawa
TrueGrid: Code the Table, Tabulate the Data ................................. 388
Felienne Hermans and Tijs van der Storm
Views on UML Interactions as Spreadsheet Queries ......................... 394
Martin Gogolla and Antonio Vallecillo
Implementing Nested FOR Loops as Spreadsheet Formulas ............... 401
Paul Mireault
SheetGit: A Tool for Collaborative Spreadsheet Development .............. 415
Ricardo Moreira

VeryComp

Context-Aware Design of Reflective Middleware in the Internet of Everything ......................................................... 423
Marina Mongiello, Tommaso di Noia, Francesco Nocera,
Eugenio di Sciascio, and Angelo Parchitelli
Composition of Advanced (μ)Services for the Next Generation of the Internet of Things ................................. 436
Amleto Di Salle, Francesco Gallo, and Claudio Pompilio
Software Technologies: Applications and Foundations
STAF 2016 Collocated Workshops: DataMod, GCM, HOFM, MELO, SEMS, VeryComp, Vienna Austria, July 4-8, 2016, Revised Selected Papers
Milazzo, P.; Várro, D.; Wimmer, M. (Eds.)
2016, XXXII, 472 p. 185 illus., Softcover
ISBN: 978-3-319-50229-8