2014 IEEE 4th International Model-Driven Requirements Engineering Workshop

(MoDRE 2014)

Karlskrona, Sweden
25 August 2014
## Contents

### Frontmatter

Preface ................................................................. iii

### State-of-Art and Goal Modelling

Model Driven Requirements Engineering: Mapping the Field and Beyond  
Saïd Assar — Institut Mines-Telecom, France ................................. 1

Goal Modeling for Sustainability: The Case of Time  
Gunter Mussbacher and Douglas Nuttall — McGill University, Canada; Parish Geomorphic, Canada ......................... 7

Context Transformations for Goal Models  
Paola Spoletini, Alessio Ferrari, and Stefania Gnesi — University of Insubria, Italy; ISTI-CNR, Italy ......................... 17

Combined Propagation-Based Reasoning with Goal and Feature Models  
Yanji Liu, Yukun Su, Xinshang Yin, and Gunter Mussbacher — McGill University, Canada ................................. 27

### Requirements Management

A DSL for Importing Models in a Requirements Management System  
Anisur Rahman and Daniel Amyot — University of Ottawa, Canada ................................. 37

SnapMind: A Framework to Support Consistency and Validation of Model-Based Requirements in Agile Development  
Fernando Wanderley, António Silva, João Araujo, and Denis S. Silveira — Universidade Nova de Lisboa, Portugal; Federal University of Pernambuco, Brazil ................................. 47

Experimental Evaluation of a Tool for Change Impact Prediction in Requirements Models: Design, Results, and Lessons Learned  
Arda Goknil, Roderick van Dombok, Ivan Kurtev, Klaas van den Berg, and Fons Wijnhoven — University of Luxembourg, Luxembourg; University of Twente, Netherlands; Nspyre, Netherlands ................................. 57

### Requirements Traceability

A Requirements Engineering Methodology Combining Models and Controlled Natural Language  
Markus Fockel and Jörg Holtmann — Fraunhofer IPT, Germany ................................. 67

Understanding and Closing the Gap between Requirements on System and Subsystem Level  
Sabine Teuff, Wolfgang Böhm, and Ralf Pinger — fortiss, Germany; TU München, Germany; Siemens, Germany ................................. 77

Requirement Traceability: A Model-Based Approach  
Omar Badreddin, Arnon Sturm, and Timothy C. Lethbridge — Northern Arizona University, USA; Ben-Gurion University of the Negev, Israel; University of Ottawa, Canada ................................. 87