

Table of Contents

Keynote

- Symbiosis of Static Analysis and Program Testing 1
Michal Young (University of Oregon)

Software Components

- An Ontology for Software Component Matching 6
Claus Pahl (Dublin City University)

- A Description Language for Composable Components 22
Ioana Şora, Pierre Verbaeten, Yolande Berbers (Katholieke Universiteit Leuven)

- A Logical Basis for the Specification of Reconfigurable
Component-Based Systems 37
Nazareno Aguirre, Tom Maibaum (King's College London)

- An Overall System Design Approach Doing Object-Oriented Modeling
to Code-Generation for Embedded Electronic Systems 52
*Clemens Reichmann, Markus Kühl (Research Center for Information
Technology), Klaus D. Müller-Glaser (University of Karlsruhe)*

Mobile Computing

- Composing Specifications of Event Based Applications 67
*Pascal Fenkam, Harald Gall, Mehdi Jazayeri (Technical University of
Vienna)*

- A Spatio-Temporal Logic for the Specification and Refinement of
Mobile Systems 87
*Stephan Merz (INRIA Lorraine), Martin Wirsing, Júlia Zappe
(Ludwig-Maximilians-Universität München)*

- Spatial Security Policies for Mobile Agents in a Sentient Computing
Environment 102
Davit Scott, Alastair Beresford, Alan Mycroft (University of Cambridge)

Aspect and Object-Oriented Programming

Towards UML-Based Formal Specifications of Component-Based Real-Time Software	118
<i>Vieri Del Bianco, Luigi Lavazza (Politecnico di Milano and CEFRIEL), Marco Mauri (CEFRIEL), Giuseppe Occorso (Technology REPLY)</i>	
Modelling Recursive Calls with UML State Diagrams	135
<i>Jennifer Tenzer, Perdita Stevens (University of Edinburgh)</i>	
Pipa: A Behavioral Interface Specification Language for AspectJ	150
<i>Jianjun Zhao (Fukuoka Institute of Techonlogy), Martin Rinard (Massachussets Institute of Technology)</i>	
PacoSuite and JASCo: A Visual Component Composition Environment with Advanced Aspect Separation Features	166
<i>Wim Vanderperren, Davy Suvée, Bart Wydaeghe, Viviane Jonckers (Vrije Universiteit Brussel)</i>	

Distributed and Web Applications

Model-Based Development of Web Applications Using Graphical Reaction Rules	170
<i>Reiko Heckel, Marc Lohmann (University of Paderborn)</i>	
Modular Analysis of Dataflow Process Networks	184
<i>Yan Jin, Robert Esser, Charles Lakos (University of Adelaide), Jörn W. Janneck (University of California at Berkeley)</i>	

Software Measurements

Foundations of a Weak Measurement-Theoretic Approach to Software Measurement	200
<i>Sandro Morasca (Università degli Studi dell'Insubria)</i>	
An Information-Based View of Representational Coupling in Object-Oriented Systems	216
<i>Pierre Kelsen (Luxembourg University of Applied Sciences)</i>	

Formal Verification

A Temporal Approach to Specification and Verification of Pointer Data-Structures	231
<i>Marcin Kubica (Warsaw University)</i>	
A Program Logic for Handling JAVA CARD's Transaction Mechanism	246
<i>Bernhard Beckert (University of Karlsruhe), Wojciech Mostowski (Chalmers University of Technology)</i>	
Monad-Independent Hoare Logic in HASCASL	261
<i>Lutz Schröder, Till Mossakowski (University of Bremen)</i>	
Visual Specifications of Policies and Their Verification	278
<i>Manuel Koch (Freie Universität Berlin), Francesco Parisi-Presicce (Università di Roma La Sapienza, George Mason University)</i>	

Analysis and Testing

Automatic Model Driven Animation of SCR Specifications	294
<i>Angelo Gargantini, Elvinia Riccobene (Università di Catania)</i>	
Probe Mechanism for Object-Oriented Software Testing	310
<i>Anita Goel (University of Delhi), S.C. Gupta (National Informatics Center), S.K. Wasan (Jamia Millia Islamia)</i>	
Model Checking Software via Abstraction of Loop Transitions	325
<i>Natasha Sharygina (Carnegie Mellon University), James C. Browne (The University of Texas)</i>	

Model Integrations and Extensions

Integration of Formal Datatypes within State Diagrams	341
<i>Christian Attiogbé (Université de Nantes), Pascal Poizat (CNRS, Université d'Evry Val D'Essonne) Gwen Salaün (Université de Nantes)</i>	
Xere: Towards a Natural Interoperability between XML and ER Diagrams	356
<i>Giuseppe Della Penna, Antiniscia Di Marco, Benedetto Intrigila, Igor Melatti, Alfonso Pierantonio (Università degli Studi di L'Aquila)</i>	
Detecting Implied Scenarios Analyzing Non-local Branching Choices	372
<i>Henry Muccini (Università degli Studi di L'Aquila)</i>	

Capturing Overlapping, Triggered, and Preemptive Collaborations
Using MSCs 387
Ingolf H. Krüger (University of California at San Diego)

Author Index 403



<http://www.springer.com/978-3-540-00899-6>

Fundamental Approaches to Software Engineering
6th International Conference, FASE 2003, Held as Part
of the Joint European Conferences on Theory and
Practice of Software, ETAPS 2003, Warsaw, Poland,
April 7-11, 2003, Proceedings
Pezzè, M. (Ed.)
2003, XIV, 407 p., Softcover
ISBN: 978-3-540-00899-6