

Table of Contents

Keynote

Symbiosis of Static Analysis and Program Testing	1
<i>Michal Young (University of Oregon)</i>	

Software Components

An Ontology for Software Component Matching	6
<i>Claus Pahl (Dublin City University)</i>	
A Description Language for Composable Components	22
<i>Ioana Şora, Pierre Verbaeten, Yolande Berbers (Katholieke Universiteit Leuven)</i>	
A Logical Basis for the Specification of Reconfigurable Component-Based Systems	37
<i>Nazareno Aguirre, Tom Maibaum (King's College London)</i>	
An Overall System Design Approach Doing Object-Oriented Modeling to Code-Generation for Embedded Electronic Systems	52
<i>Clemens Reichmann, Markus Kühl (Research Center for Information Technology), Klaus D. Müller-Glaser (University of Karlsruhe)</i>	

Mobile Computing

Composing Specifications of Event Based Applications	67
<i>Pascal Fenkam, Harald Gall, Mehdi Jazayeri (Technical University of Vienna)</i>	
A Spatio-Temporal Logic for the Specification and Refinement of Mobile Systems	87
<i>Stephan Merz (INRIA Lorraine), Martin Wirsing, Júlia Zappe (Ludwig-Maximilians-Universität München)</i>	
Spatial Security Policies for Mobile Agents in a Sentient Computing Environment	102
<i>Davit Scott, Alastair Beresford, Alan Mycroft (University of Cambridge)</i>	

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

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