# Table of Contents

Working IEEE/IFIP Conference on Software Architecture

<table>
<thead>
<tr>
<th>Section</th>
<th>Page</th>
</tr>
</thead>
<tbody>
<tr>
<td>Message from the Chairs</td>
<td>vii</td>
</tr>
<tr>
<td>Conference Committee</td>
<td>viii</td>
</tr>
<tr>
<td>Program Committee</td>
<td>ix</td>
</tr>
</tbody>
</table>

## Invited Talk

- Is Architecture a Product that Can Be Packaged and Sold?  
  Wojtek Kozaczynski, Rational  
  Page: 3

## Industrial Case Studies/Quality Attributes

- Towards Fault-Tolerant Software Architectures  
  D. Sotirovski  
  Page: 7

- The Role of SW Architecture in Solving Fundamental Problems in Object-Oriented Development of Large Embedded SW Systems  
  P. Laine  
  Page: 14

- An Object-Oriented RBAC Model for Distributed Systems  
  C. Zhang and C. Yang  
  Page: 24

## Product Lines

- MAP—Mining Architectures for Product Line Evaluations  
  C. Stoermer and L. O’Brien  
  Page: 35

- On the Notion of Variability in Software Product Lines  
  J. van Gurp, J. Bosch, and M. Svahnberg  
  Page: 45

- Techniques for Independent Deployment to Build Product Populations  
  R. van Ommering  
  Page: 55

## Formal Approaches

  C. Kloukinas and V. Issarny  
  Page: 67

- Detecting Architectural Mismatches in Process Algebraic Descriptions of Software Systems  
  M. Bernardo, P. Ciancarini, and L. Donatiello  
  Page: 77

- Statechart Simulator for Modeling Architectural Dynamics  
  A. Egyed and D. Wile  
  Page: 87

## Invited Talk

- When System Boundaries Dissolve: Research Opportunities in Software Architectures for Ubiquitous Computing and Communication  
  Mary Shaw, Carnegie Mellon University  
  Page: 99
Representation
A Highly-Extensible, XML-Based Architecture Description Language .................................................. 103
E. Dashofy, A. van der Hoek, and R. Taylor
Interface-Centric Architecture Descriptions .................................................................................. 113
H. Jonkers
Why We Need a Different View of Software Architecture .................................................................. 125
J. Baragry and K. Reed

Components, Connectors, Collaborations
Layers, Decisions, Patterns, Styles, and Architectures ........................................................................ 137
R. Schwanke
A Compositional Approach for Constructing Connectors ................................................................ 148
B. Spitznagel and D. Garlan
Collaboration-Based Design—Exemplified by the Internet Session Initiation Protocol (SIP) .......... 158
B. Geppert and F. Roßler

Patterns and Tools
Annotating Reusable Software Architectures with Specialization Patterns ...................................... 171
M. Hakala, J. Hautamäki, K. Koskimies, J. Paakki, A. Viljamaa, and J. Viljamaa
An Architecture for Distributing the Computation of Software Clustering Algorithms ..................... 181
B. Mitchell, M. Traverso, and S. Mancoridis
Focus: A Light-Weight, Incremental Approach to Software Architecture Recovery and Evolution .......... 191
L. Ding and N. Medvidovic

Author Index ........................................................................................................................................ 201