

# **2013 VII Brazilian Symposium on Software Components, Architectures and Reuse**

**(SBCARS 2013)**

**Brasilia, Brazil  
29 September – 4 October**



**IEEE Catalog Number: CFP1334L-POD  
ISBN: 978-1-4799-2532-2**

# 2013 VII Brazilian Symposium on Software Components, Architectures and Reuse

## SBCARS 2013

### Table of Contents

Foreword.....	vii
Organizing Committee.....	viii
Program Committee.....	ix
Steering Committee.....	xi
Additional Reviewers.....	xii
Keynotes.....	xiii

---

#### **Technical Session 1: Feature-Oriented Software Development**

A Feature-Driven Requirements Engineering Approach for Software Product Lines .....	1
<i>Raphael Pereira de Oliveira, Emilio Insfran, Silvia Abrahão, Javier Gonzalez-Huerta, David Blanes, Sholom Cohen, and Eduardo Santana de Almeida</i>	
Improving Modular Reasoning on Preprocessor-Based Systems .....	11
<i>Jean Carlos de Carvalho Melo and Paulo Henrique Monteiro Borba</i>	
Software Variability Management: An Exploratory Study with Two Feature Modeling Tools .....	20
<i>Juliana Alves Pereira, Carlos Souza, Eduardo Figueiredo, Ramon Abilio, Gustavo Vale, and Heitor Augustus Xavier Costa</i>	

#### **Technical Session 2: Service-Oriented Development**

Evaluating the Propagation of Exceptions in the Service Oriented Architecture in .NET .....	30
<i>José Alex Medeiros de Lima, Eliezio Soares de Sousa Neto, José Sueney de Lima, Nélio Alessandro Azevedo Cacho, Roberta de Souza Coelho, and Umberto Souza da Costa</i>	
A Systematic Mapping Study on Service Oriented Computing in the Context of Quality of Services .....	39
<i>Danilo Filgueira Mendonça, Genáina Nunes Rodrigues, Aletéia Favacho, and Maristela Holanda</i>	

aCCountS: A Service-Oriented Architecture for Flexible Pricing in Cloud Infrastructure .....	49
<i>Nayane Ponte Viana, Fernando Antônio de Mota Trinta, José Ricardo Mello Viana, Rossana Maria de Castro Andrade, Vinícius Garcia, and Rodrigo Assad</i>	

### **Technical Session 3: Software Product Line Engineering**

AspectJ-Based Idioms for Flexible Feature Binding .....	59
<i>Rodrigo Andrade, Henrique Rebêlo, Márcio Ribeiro, and Paulo Borba</i>	
Towards Validating Complexity-Based Metrics for Software Product Line Architectures .....	69
<i>Anderson Marcolino, Edson Oliveira Junior, Itana Gimenes, and Tayana Uchoa Conte</i>	
A SPL Infrastructure for Supporting Scientific Experiments in Petroleum Reservoir Research Field .....	79
<i>Fernanda Yara dos Santos Foschiani, Leonardo Pondian Tizzei, and Cecília Mary Fischer Rubira</i>	

### **Technical Session 4: Software Testing**

BISTFaSC: An Approach to Embed Structural Testing Facilities into Software Components .....	89
<i>Marcelo Medeiros Eler and Paulo Cesar Masiero</i>	
Using Thesaurus-Based Tag Clouds to Improve Test-Driven Code Search .....	99
<i>Otávio Augusto Lazzarini Lemos, Adriano Carvalho de Paula, Gustavo Konishi, Joel Ossher, Sushil Bajracharya, and Cristina Lopes</i>	

### **Technical Session 5: Model-Driven Engineering and Software Architecture**

MTP: Model Transformation Profile .....	109
<i>Ana Patrícia Fontes Magalhães Mascarenhas, Aline Maria Santos Andrade, and Rita Suzana Pitangueira Maciel</i>	
A Model-Driven Infrastructure for Developing Product Line Architectures Using CVL .....	119
<i>Amanda S. Nascimento, Cecília M. F. Rubira, Rachel Burrows, and Fernando Castor</i>	
A Reference Architecture Based on Reflection for Self-Adaptive Software .....	129
<i>Frank José Affonso and Elisa Yumi Nakagawa</i>	
<b>Author Index</b> .....	139