# 2009 Fourth Latin-American Symposium on Dependable Computing

## LADC 2009

### Table of Contents

- **Message from General Chair** ................................................................. vii
- **Message from Program Committee Co-chairs** ........................................ viii
- **Organizing Committee** ........................................................................... ix
- **Reviewers** ............................................................................................... xi
- **The Student Forum at LADC** .................................................................. xii
- **Workshop on Dependability and Security in P2P (WeeP 2009)** ............ xiii

### TS1: Dependability in Database Systems

- Benchmarking Untrustworthiness in DBMS Configurations .......................... 1
  - **Afonso Araújo Neto and Marco Vieira**
- A Weight-Based Symptom Correlation Approach to SQL Injection Attacks ......................................................... 9
  - **Massimo Ficco, Luigi Coppolino, and Luigi Romano**
- Detecting SQL Injection Vulnerabilities in Web Services ........................................... 17
  - **Nuno Antunes and Marco Vieira**

### TS2: Algorithms and Methods for Dependable Computing

- Adaptive Sabotage-Tolerant Scheduling for Peer-to-Peer Grids ..................... 25
  - **Ana Cristina Oliveira, Lívia Sampaio, Stênio Flávio Fernandes, and Francisco Brasileiro**
- Probabilistic Estimation of Network Size and Diameter ......................................... 33
  - **Jorge C. S. Cardoso, Carlos Baquero, and Paulo Sérgio Almeida**
- A Timer-Free Fault Tolerant K-Mutual Exclusion Algorithm ............................... 41
  - **Mathieu Bouillageut, Luciana Arantes, and Pierre Sens**

### TS3: Dependability and Security Benchmarking

- Using Dependability, Performance, Area and Energy Consumption Experimental Measures to Benchmark IP Cores ................................................................. 49
  - **David de Andrés, Juan-Carlos Ruiz, and Pedro Gil**
- Appraisals Based on Security Best Practices for Software Configurations ........................... 57
  - **Afonso Araújo Neto and Marco Vieira**
BitTorrent Needs Psychiatric Guarantees: Quantifying How Vulnerable BitTorrent Swarms are to Sybil Attacks 

Felipe Pontes, Francisco Brasileiro, and Nazareno Andrade

TS4: Design of Dependable Systems

Implementing Retry - Featuring AOP

Bruno Cabral and Paulo Marques

Structuring Specifications with Modes

Alexei Iliasov, Alexander Romanovsky, and Fernando Luis Dotti

TS5: Dependability of Software

Mapping Web-Based Applications Failures to Faults

Regina Moraes, Bruno T. de Abreu, and Eliane Martins


Alex Ander Javarotti Zumalde, Jorge Martins Secall, and Joao Batista Camargo Junior

Architectural-Based Validation of Fault-Tolerant Software

Patrick H. S. Brito, Rogério de Lemos, Eliane Martins, Regina Moraes, and Cecilia M. F. Rubira

TS6: Engineering Dependable Systems

A Low-Cost On-Line Monitoring Mechanism for the FlexRay Communication Protocol

Yasser Sedaghat and Seyed Ghassem Miremadi

Dealing with Driver Failures in the Storage Stack

Jorrit N. Herder, David C. van Moolenbroek, Raja Appuswamy, Bingzheng Wu, Ben Gras, and Andrew S. Tanenbaum

A Proof-Carrying-Code Infrastructure for Resources

Hans-Wolfgang Loidl, Kenneth MacKenzie, Steffen Jost, and Lennart Beringer

Tutorials

From Object Replication to Database Replication

Fernando Pedone and Rui Oliveira

Experimental Methods for Computer Science Research

Roy Maxion

Invited Talks

Dependability in the Time of Forensics

Roy Maxion

Empirical Data-Driven Modeling for Dependability Enhancement

Miroslaw Malek

Author Index