Table of Contents

Session: Multicore and Distributed Systems

Experience with the Integration of Distribution Middleware into Partitioned Systems 1
Héctor Pérez and J. Javier Gutiérrez

Tasklettes – A Fine Grained Parallelism for Ada on Multicores 17
Stephen Michell, Brad Moore, and Luís Miguel Pinho

Model-Based Deployment of Mission-Critical Spacecraft Applications on Multicore Processors 35
J. Reinier van Kampenhout and Robert Hilbrich

Session: Ada and Spark

A SPARK/Ada CubeSat Control Program 51
Carl Brandon and Peter Chapin

Lady Ada Mediates Peace Treaty in Endianness War 65
Thomas Quinot and Eric Botcazou

Session: Dependability

Provably Secure DNS: A Case Study in Reliable Software 81
Barry Fagin and Martin Carlisle

Using Ontologies in the Integration of Structural, Functional, and Process Perspectives in the Development of Safety Critical Systems 95
Irene Bicchierai, Giacomo Bucci, Carlo Nocentini, and Enrico Vicario

Measuring the Odds of Statements Being Faulty 109
Xiaozhen Xue and Akbar Siami Namin

Session: Real-Time Systems

A Model-Based Framework for Developing Real-Time Safety Ada Systems 127
Emilio Salazar, Alejandro Alonso, Miguel A. de Miguel, and Juan A. de la Puente

Towards a Time-Composable Operating System 143
Andrea Baldovin, Enrico Mezzetti, and Tullio Vardanega

Worst–Case Execution Time Analysis Approach for Safety–Critical Airborne Software 161
Esteban Asensio, Ismael Lafoz, Andrew Coombes, and Julian Navas

Author Index 177