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Formal Methods: Foundations and Applications

13th Brazilian Symposium on Formal Methods, SBMF 2010 Natal, Brazil, November 8-11, 2010 Revised Selected Papers



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Preface

This volume contains the papers presented at SBMF 2010: the 13th Brazilian Symposium on Formal Methods, organized during the week of November 8, 2010. The conference was held, for the second time, in the city of Natal, Rio Grande do Norte, Brazil, co-located with ICTSS 2010, the 22nd IFIP International Conference on Testing Software and Systems, and SAST 2010, the Brazilian Workshop on Systematic and Automated Software Testing.

The conference programme included three invited talks, given by Constance Heitmeyer (Naval Research Lab, USA), Bill Roscoe (University of Oxford, UK) and David Naumann (Stevens Institute of Technology, USA). It also included two workshops: *Using BOOGIE 2 in the Verification of Spec# Programs*, organized by K. Rustan M. Leino (Microsoft Research) and Rosemary Monahan (National University of Ireland), and *Workshop on B Dissemination (WOBD)*, chaired by Thierry Lecomte (ClearSy, France) on behalf of the DEPLOY project.

There was also an accompanying doctoral research symposium, with presentations from research students working on new developments in the theory and practice of formal methods, and a special session on the development of the formal methods curriculum.

Awards were made to: Wojciech Mostowski and Erik Poll, for the best paper, "Midlet Navigation Graphs in JML"; to Alexandra Silva, for the best paper presentation; to Giselle Reis, for the best doctoral presentation; to Tiago Massoni, for the best use of presentation technology; and to Rolf Hennicker, for the best contribution to the discussions that followed each author's presentation.

A total of 18 research papers were presented at the conference, selected from 55 submissions, and included in revised form in this volume. We are grateful to the Programme Committee, and the additional reviewers, for their hard work in evaluating submissions and suggesting improvements. The papers were presented, by their authors, in seven separate sessions; these sessions were well attended, and we are grateful to the many participants who made additional, thoughtful contributions between, during, and after the paper presentations.

We are grateful to the organizers of this year's conference, the Departamento de Informática e Matemática Aplicada of Rio Grande do Norte (UFRN) and the Brazilian Computer Society (SBC), and also to the sponsors: CNPq, the Brazilian Scientific and Technological Research Council; CAPES, the Brazilian Higher Education Funding Council; The Federal University of Rio Grande do Norte (UFRN); Miranda Computação e Comércio Ltda; SETIRN.

December 2010

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Table of Contents

Directed Model Checking for B: An Evaluation and New Techniques Michael Leuschel and Jens Bendisposto	1
Midlet Navigation Graphs in JML	17
Runtime Verification for Generic Classes with ConGu2	33
A High-Level Language for Modeling Algorithms and Their Properties	49
A Formal Environment Model for Multi-Agent Systems	64
A Modal Interface Theory with Data Constraints	80
Synchronizing Model and Program Refactoring	96
A Type-Theoretic Framework for Certified Model Transformations Daniel Calegari, Carlos Luna, Nora Szasz, and Álvaro Tasistro	112
Simulating Truly Concurrent CSP	128
Statistical Verification of Probabilistic Properties with Unbounded Until	144
Reasoning about Assignments in Recursive Data Structures	161
Specification of a Localization Component Driven by a Goal-Based Approach: Some Lessons We Learned	177
A Formal Framework for Specifying and Analyzing Logs as Electronic Evidence	194

VIII Table of Contents

Formal Development of a Cardiac Pacemaker: From Specification to Code	210
Artur O. Gomes and Marcel V.M. Oliveira	210
A Decision Procedure for Bisimilarity of Generalized Regular Expressions	226
Normalization of Linear Horn Clauses	242
A Graph-Based Implementation for Mechanized Refinement Calculus of OO Programs	258
Automating Refinement of Circus Programs	274
Author Index	291