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Formal Methods for Open Object-Based Distributed Systems

9th IFIP WG 6.1
International Conference FMOODS 2007
Paphos, Cyprus, June 6-8, 2007
Proceedings

Springer

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Preface

This volume contains the proceedings of the Ninth IFIP WG 6.1 International Conference on Formal Methods for Open Object-Based Distributed Systems (FMOODS 2007). The conference is part of the federated conferences on Distributed Computing Techniques (DisCoTec), together with the Ninth International Conference on Coordination Models and Languages (COORDINATION 2007) and the Seventh IFIP International Conference on Distributed Applications and Interoperable Systems (DAIS 2007). It was organized by the Department of Computer Science of the University of Cyprus, and it was held in Paphos, Cyprus during June, 6-8, 2007. The event was the third federated DisCoTec conference series, initiated in Athens in June 2005 and continued in Bologna in June 2006.

The goal of the FMOODS conferences is to bring together researchers and practitioners whose work encompasses three important and related fields:

– Formal methods
– Distributed systems and
– Object-based technology

The 17 papers presented at FMOODS 2007 and included in this volume were selected by the Programme Committee among 45 submissions. Each submission was reviewed by at least three Programme Committee members. They all reflect the scope of the conference and cover the following topics: semantics of object-oriented programming; formal techniques for specification, analysis, and refinement; model checking; theorem proving and deductive verification; type systems and behavioral typing; formal methods for service-oriented computing; integration of quality of service requirements into formal models; formal approaches to component-based design; and applications of formal methods.

The two invited speakers of FMOODS 2007, who also contributed to the proceedings in this volume, were:

– Mariangiola Dezani-Ciancaglini of the University of Torino, Italy, who is well known for her work on intersection-type assignment systems, which were largely used as finitary descriptions of lambda-models. More recently, she is interested in type systems for object-oriented languages and ambient calculi. In this volume she contributed with a paper introducing session types for object-oriented languages.
– Wolfgang Ahrend of the Chalmers Technical University, Sweden, who is known for his involvement in the KeY project, which aims at a formal methods tool that integrates design, implementation, formal specification, and formal verification of object-oriented software.

The conference was supported by IFIP, in particular by TC 6 and the working group WG 6.1. Thanks are due to John Derrick, Elie Najm, and George

Papadopoulos for their efforts in this respect. We are also grateful to the University of Cyprus and George Papadopoulos for organizing the event, the European project IST-33826 CREDO (`http://credo.cwi.nl`) for sponsoring one invited speaker, and the ITEA project Trust4All for sponsoring the participation of one of the Programme Committee Chairs.

Finally we thank all authors for the high quality of their contributions, and the Programme Committee members and the external reviewers for their help in selecting the papers for this volume. The use of EasyChair as a conference system was very helpful for organizing the technical programme and proceedings of FMOODS 2007.

June 2007   Marcello Bonsangue
                                                              Einar Broch Johnsen

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