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Recent Trends in Algebraic Development Techniques

19th International Workshop, WADT 2008
Pisa, Italy, June 13-16, 2008
Revised Selected Papers



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Preface

This volume contains selected papers from WADT 2008, the 19th International Workshop on Algebraic Development Techniques. After having joined forces with CMCS for CALCO 2007 in Bergen, WADT took place in 2008 as an individual workshop and in its traditional format.

Like its predecessors, WADT 2008 focussed on the algebraic approach to the specification and development of systems, which encompasses many aspects of formal design. Originally born around formal methods for reasoning about abstract data types, WADT now covers new specification frameworks and programming paradigms (such as object-oriented, aspect-oriented, agent-oriented, logic and higher-order functional programming) as well as a wide range of application areas (including information systems, concurrent, distributed and mobile systems). The main topics are: foundations of algebraic specification and other approaches to formal specification, including process calculi and models of concurrent, distributed and mobile computing; specification languages, methods and environments; semantics of conceptual modelling methods and techniques; model-driven development; graph transformations, term rewriting and proof systems; integration of formal specification techniques; formal testing and quality assurance; and validation and verification.

The Steering Committee of WADT consists of Michel Bidoit, José Fiadeiro, Hans-Jörg Kreowski, Till Mossakowski, Peter Mosses, Fernando Orejas, Francesco Parisi-Presicce, and Andrzej Tarlecki.

WADT 2008 took place during June 13–16, 2008, at Hotel Santa Croce in Fossabanda, a former monastery in the center of Pisa, and was organized by a committee chaired by Andrea Corradini and including Filippo Bonchi, Roberto Bruni, Vincenzo Ciancia and Fabio Gadducci. The scientific program consisted of 33 presentations selected on the basis of submitted abstracts, as well as invited talks by Egon Börger, Luca Cardelli and Stephen Gilmore.

The workshop took place under the auspices of IFIP WG 1.3 (Foundations of System Specification), and it was organized by the Dipartimento di Informatica of the University of Pisa. It was sponsored by IFIP TC1 and by the University of Pisa.

All the authors were invited to submit a full paper for possible inclusion in this volume. An Evaluation Committee was formed which consisted of the Steering Committee of WADT with the additional members Andrea Corradini (Co-chair), Fabio Gadducci, Reiko Heckel, Narciso Martí-Oliet, Ugo Montanari (Co-chair), Markus Roggenbach, Grigore Roşu, Don Sannella, Pierre Yves Schoebbens and Martin Wirsing.

All submissions underwent a careful refereeing process. We are also grateful to the following additional referees for their help in reviewing the submissions: Cyril Allauzen, Dénes Bisztray, Paolo Baldan, Filippo Bonchi, Artur Boronat,

Vincenzo Ciancia, Razvan Diaconescu, Renate Klempien-Hinrichs, Alexander Kurz, Sabine Kuske, Alberto Lluch Lafuente, Carlos Gustavo Lopez Pombo, Christoph Lüth, Hernan Melgratti, Giacoma Valentina Monreale, Miguel Palomino, Marius Petria, Laure Petrucci, Andrei Popescu, Florian Rabe, Pierre-Yves Schobbens, Lutz Schröder, Traian Șerbănuță, Gheorghe Stefanescu and Paolo Torrini. This volume contains the final versions of the contributions that were accepted.

March 2009

Andrea Corradini
Ugo Montanari

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