Preface

The algebraic approach to system specification and development, born in the early 1970s as a formal method for abstract data types, encompasses today, at the beginning of the third millennium, the formal design of integrated hardware and software systems, new specification frameworks and programming paradigms, and a wide range of application areas. The workshops on Algebraic Development Techniques, initiated in 1982 as the workshop on Abstract Data Types, are a prominent forum to present and discuss current research in that area.

The 15th International Workshop on Algebraic Development Techniques (WADT 2001) took place in Genova, as a satellite of ETAPS 2001, on April 1–3, 2001, and was organized by Maura Cerioli and Gianna Reggio.

From 1991 to 1995 WADT workshops were held jointly with the General Workshop of the ESPRIT Basic Research Working Group COMPASS. Following this tradition, the WADT 2001 was held jointly with the General Workshop of the ESPRIT Working Group CoFI. The Common Framework Initiative, started in 1995 and funded since 1998 as CoFI WG, is centered around the definition of the Common Algebraic Specification Language (CASL).

The program started with a full day tutorial on the CASL, followed by 32 presentations, several of them on the CASL as well, organized in parallel sessions during the following two days. The parallel sessions were devoted to: logics and proofs, concurrent processes, institutions and categories, applications and case studies, higher-order and parameterized specifications, static analysis, software architectures, graph and transformation rules.

The main topics of the workshop were:

- algebraic specification
- other approaches to formal specification
- specification languages and methods
- term rewriting and proof systems
- specification development systems (concepts, tools, etc.)

The program committee invited submissions of full papers for possible inclusion in this volume, on the basis of the abstracts and the presentations at WADT 2001.

All the submissions were subject to careful refereeing, and the selection of papers was made following further discussion by the full program committee.

We are extremely grateful to all workshop participants, to the (other) members of the program committee, and to the external referees for their contribution to the scientific quality of the workshop and of this volume.

The WADT series is sponsored by IFIP WG1.3 on Foundations of System Specification (see `http://www.brics.dk/~pdm/IFIP-WG1.3`).

November 2001   Maura Cerioli and Gianna Reggio

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