

# Lecture Notes in Computer Science

655

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# Recent Trends in Data Type Specification

8th Workshop on Specification of Abstract Data  
Types joint with the 3rd COMPASS Workshop  
Dourdan, France, August 26-30, 1991  
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## Preface

The algebraic specification of abstract data types has been a flourishing research topic in computer science since 1974. The main goal of this work is to evolve theoretical foundations and a methodology to support the design and formal development of reliable software. The Eighth Workshop on Specification of Abstract Data Types was held jointly with the Third COMPASS Workshop, 26-30 August 1991, in the town of Dourdan, about 50 kilometers from Paris, and was organized by Michel Bidoit and Christine Choppy. The main topics covered by this joint workshop were:

- specification languages and program development
- algebraic specification of concurrency
- theorem proving
- object-oriented specifications
- order-sorted algebras
- abstract implementation and behavioural semantics.

The general feeling was that this joint workshop was extremely successful and that the contributions were of a high scientific level. Part of this success is due to E. Astesiano, H.-D. Ehrich, P.D. Mosses, and F. Orejas who accepted to prepare in depth surveys. The program committee (Michel Bidoit, Christine Choppy, Hartmut Ehrig, Bernd Krieg-Brückner, Fernando Orejas, Horst Reichel, and Don Sannella) selected a number of talks which represented the most interesting ideas and reflected the main trends in current research, and asked their presenters to contribute papers. The present volume contains the final version of the selected papers, together with the invited surveys. All of them underwent a careful refereeing process, and we are grateful to the following people who agreed to referee the papers:

E. Astesiano, J. Bergstra, G. Bernot, M. Bidoit, M. Broy, C. Choppy, I. Classen, M. Cerioli, H.-D. Ehrich, H. Ehrig, G. Ferrari, W. Fey, J.F. Fiadeiro, M.-C. Gaudel, M. Gogolla, J. Goguen, M. Grosse-Rhode, I. Guesarian, M. Kindler, M. Korff, H.-J. Kreowski, B. Krieg-Brückner, J. Loeckx, P.D. Mosses, F. Nickl, F. Orejas, P. Pepper, A. Poigné, G. Reggio, H. Reichel, D. Sannella, H. Schmidt, O. Schoett, G. Scollo, T. Stroup, A. Tarlecki, N. Van Diepen, U. Waldmann, E.G. Wagner, J. Zeyer.

Thanks to Evelyne Jorion and Hélène Outin for secretarial support, and to Gilles Bernot, Pierre Dauchy, Clément Roques, and Frédéric Voisin for helping with the workshop organization. The workshop was sponsored by the Université Paris-Sud, the Ecole Normale Supérieure and the C.N.R.S., and received financial support from the ESPRIT Basic Research Working Group COMPASS, the C.N.R.S., and the C.N.R.S. GDR de Programmation.

*We would like to dedicate this volume to Stéphane Kaplan.*

## IN MEMORIAM

### Stéphane Kaplan (1961–1991)

Stéphane Kaplan was a student of the Ecole Normale Supérieure in Mathematics; he became “agrégé” in Mathematics in 1981. He received his “Thèse de 3ème Cycle” diploma and his “Thèse d’Etat” diploma in 1982 and 1987 respectively, both in Computer Science from the University of Paris-Sud, Orsay, France.

He was appointed by the C.N.R.S. (Centre National de la Recherche Scientifique) since 1983 as a “Chargé de Recherches” (full-time researcher) at the L.R.I. (Laboratoire de Recherche en Informatique) at the University of Paris-Sud. He spent a year in 1985–1986 at the Weizmann Institute of Science, Rehovot, Israel, as a visiting scientist; he came back to Israel, on leave from C.N.R.S., from 1987 to 1990, while he taught as a senior lecturer in Computer Science at the University of Bar-Ilan (Ramat-Gan), and partly at the Hebrew University of Jerusalem.

He mainly contributed to advances in rewriting (in particular in conditional rewriting), and in the specification of concurrent systems (through the theory of “process specifications” that he developed).

He was bright, dynamic, open, intuitive and fast. In addition to his qualities as a research scientist, he was a very nice guy, with a good (and light) sense of humour, a love for music, and deep human insight.

Those of us who knew him will surely miss him a lot.

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