

Preface

This volume contains the proceedings of the ninth international workshop on logic-based program synthesis and transformation (LOPSTR'99) which was held in Venice (Italy), September 22-24, 1999.

LOPSTR is the annual workshop and forum for researchers in the logic-based program development stream of computational logic. The main focus used to be on synthesis and transformation of logic programs, but the workshop is open to contributions on logic-based program development in any paradigm. Previous workshops were held in Manchester, UK (1991, 1992), Louvain-la-Neuve, Belgium (1993), Pisa, Italy (1994), Arnhem, The Netherlands (1995), Stockholm, Sweden (1996), Leuven, Belgium (1997), and Manchester, UK (1998).

LOPSTR is a real workshop in the sense that it is a friendly and lively forum for presenting recent and current research as well as discussing future trends. Formal proceedings of the workshop are produced only after the workshop and contain only those papers selected by the program committee after a second refereeing process.

The program committee of LOPSTR'99 accepted 20 extended abstracts for presentation at the workshop; then selected 14 papers for inclusion in the post-workshop proceedings. Selected papers cover all the main streams of LOPSTR's topics: synthesis, specialization, transformation, analysis, and verification. Verification, transformation, and specialization methods are applied to functional, constraint, logic, and imperative programming.

The invited speaker was Donald Sannella, of the University of Edinburgh, UK. He presented and compared various formalizations of the concept of “refinement step” used in the formal development of programs from algebraic specifications. Two tutorials were offered to the audience: Mireille Ducassé presented the B formal method for software development, Laurent Fribourg discussed some of the approaches based on constraint logic programming for verifying properties of state-transition systems. An extended abstract of the invited talk is included in this volume together with the two tutorial papers.

I would like to thank all the members of the program committee and all the referees for their careful work in the reviewing and selection process. Special thanks go to Pierre Flener, the chairman of LOPSTR'98, for his helpful advice and to the organizing committee for the effort they invested.

Program Committee

Annalisa Bossi	University of Venice, Italy (program chair)
Yves Deville	Université Catholique de Louvain, Belgium
Mireille Ducassé	IRISA, Rennes, France
Sandro Etalle	Universiteit Maastricht, The Netherlands
Pierre Flener	Uppsala University, Sweden
Patricia Hill	University of Leeds, UK
Kung-Kiu Lau	University of Manchester, UK
Baudouin Le Charlier	University of Namur, Belgium
Michael Leuschel	University of Southampton, UK
Michael Lowry	NASA Ames, USA
Ali Mili	Institute for Software Research, USA
Lee Naish	Melbourne University, Australia
Alberto Pettorossi	University of Rome Tor Vergata, Italy
Dave Robertson	University of Edinburgh, UK

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Nicoletta Cocco (Univ. of Venice)
Riccardo Focardi (Univ. of Venice)
Sabina Rossi (Univ. of Venice)

Referees

D. Basin	P. Hill	L. Naish
A. Bossi	I. Hnich	A. Pettorossi
M. Bugliesi	J.M. Howe	M. Proietti
N. Cocco	E. Jahier	J. Richardson
T. Conway	K.-K. Lau	O. Ridoux
A. Cortesi	H. Lehmann	D. Robertson
Y. Deville	B. Le Charlier	S. Rossi
M. Ducassé	M. Leuschel	J.-G. Smaus
S. Etalle	F. Levi	H. Søndergaard
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