Preface

This volume contains the proceedings of the Fifth International Workshop on Rule-Based Programming (RULE 2004), part of the Federated Conference on Rewriting, Deduction and Programming (RDP 2004), held during May 31 - June 5, 2004, in Aachen, Germany.

Rule-based programming is currently experiencing a renewed period of growth with the emergence of new concepts and systems that allow a better understanding and better usability. On the theoretical side, after the in-depth study of rewriting concepts during the eighties, the nineties saw the emergence of the general concepts of rewriting logic and of the rewriting calculus. On the practical side, new languages and systems such as ASF+SDF, BURG, CHRS, Claire, ELAN, Maude, and Stratego have shown that rules are a useful programming tool.

The practical application of rule-based programming prompts research into the algorithmic complexity and optimization of rule-based programs as well as into the expressivity, semantics and implementation of rule-based languages.

The purpose of this workshop is to bring together researchers from the various communities working on rule-based programming to foster fertilisation between theory and practice, as well as to favour the growth of this programming paradigm.


There were 14 submissions of overall high quality, authored by researchers from countries including Austria, France, Germany, Italy, Japan, Spain, Thailand, UK, and USA. All submissions were thoroughly evaluated and an electronic program committee meeting was held through the Internet. The pro-
gram committee selected 9 papers, which can be found in this volume.

We would like to thank the program committee members and all the referees for their care and time in evaluating and selecting the submitted papers, Juergen Giesl and the RDP organizing committee for taking care of the local organization. Post-workshop proceedings are published in the Electronic Notes in Theoretical Computer Science (ENTCS). We would like to thank Professor Michael Mislove and Elsevier for providing us this opportunity.

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