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Revised Selected Papers

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Preface

These proceedings contain a selection of refereed papers presented at or related to the Annual Workshop of the TYPES project (EU coordination action 510996), which was held from December 15 to 18, 2004, in Jouy en Josas, France.

The topic of this workshop was formal reasoning and computer programming based on type theory: languages and computerized tools for reasoning, and applications in several domains such as analysis of programming languages, certified software, formalization of mathematics and mathematics education.

The workshop was attended by more than 100 researchers and proposed more than 50 presentations. Out of 33 post-workshop submitted papers, 17 were selected after a reviewing process. The final decisions were made by the editors.

This workshop followed a series of meetings of the TYPES working group funded by the European Union (IST project 29001, ESPRIT Working Group 21900, ESPRIT BRA 6435). The proceedings of these workshop were published in the LNCS series:

TYPES 93 Nijmegen, The Netherlands, LNCS 806
TYPES 94 Båstad, Sweden, LNCS 996
TYPES 95 Torino, Italy, LNCS 1158
TYPES 96 Aussois, France, LNCS 1512
TYPES 98 Kloster Irsee, Germany , LNCS 1657
TYPES 2000 Durham, United Kingdom, LNCS 2277
TYPES 2002 Berg en Dal, The Netherlands, LNCS 2646
TYPES 2003 Torino, Italy, LNCS 3085

ESPRIT BRA 6453 was a continuation of ESPRIT Action 3245, Logical Frameworks: Design, Implementation and Experiments. Proceedings for annual meetings under this action were published by Cambridge University Press in the books *Logical Frameworks* and *Logical Environments,* edited by G. Huet and G. Plotkin.

We are very grateful to INRIA for supporting the TYPES meeting. We especially want to thank Catherine Girard and Catherine Moreau (organization), Chantal Girodon (registration) and Laurent Steff (technical support). Hugo Herbelin was in charge of the programme in the organizing committee. Finally, Marie-Carol Lopes took care of the organization of the post-workshop proceedings and carefully prepared the final composition of the volume.

November 2005

Jean-Christophe Filliâtre
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