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Advanced Functional Programming

5th International School, AFP 2004
Tartu, Estonia, August 14 – 21, 2004
Revised Lectures

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Preface

This volume contains the revised lecture notes corresponding to nine of the lecture courses presented at the 5th International School on Advanced Functional Programming, AFP 2004, held in Tartu, Estonia, August 14–21, 2004.

The goal of the AFP schools is to inform the wide international communities of computer science students and software production professionals about the new and important developments in the area of functional programming. The schools put a special emphasis on practical applications of advanced techniques. The Tartu school was preceded by four earlier schools in Båstad, Sweden (1995, LNCS 925), Olympia, WA, USA (1996, LNCS 1129), Braga, Portugal (1998, LNCS 1608) and Oxford, UK (2002, LNCS 2638).

The scientific programme of AFP 2004 consisted of five preparatory (“intermediate”) courses, given by John Hughes (Chalmers University of Technology, Göteborg, Sweden), Doaitse Swierstra (Universiteit Utrecht, The Netherlands) and Rinus Plasmeijer (Radboud Universiteit Nijmegen, The Netherlands), and nine regular (“advanced”) courses, presented by Atze Dijkstra (Universiteit Utrecht, The Netherlands), Doaitse Swierstra, John Hughes, Conor McBride (University of Nottingham, UK), Alberto Pardo (Universidade de la República, Montevideo, Uruguay), Rinus Plasmeijer, Bernard Pope (University of Melbourne, Australia), Peter Thiemann (Universität Freiburg, Germany), and Simon Thompson (University of Kent, UK). There was also a student session.

The school attracted a record number of 68 participants from 16 countries (inclusive of the lecturers and organizers).

This volume contains the notes for the advanced courses. Following the school, the lecturers revised the notes they had prepared for the school. The revised notes were each carefully checked by two or three second readers selected from among the most qualified available and then revised once more by the lecturers. We are proud to commend the final texts to everyone wishing to acquire first-hand knowledge about some of the exciting and trendsetting developments in functional programming.

We are grateful to our sponsors, to the Faculty of Mathematics and Computer Science of the University of Tartu, to the lecturers and the second readers for their hard work on the oral presentations, and the notes, and to all our participants. You made the school what it was.

Tartu and Tallinn, June 2005

Varmo Vene
Tarmo Uustalu

Organization

Host Institution

AFP 2004 was organized by the Department of Computer Science of the University of Tartu in cooperation with the Center for Dependable Computing (CDC), an Estonian center of excellence in research.

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