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# Coordination Models and Languages

17th IFIP WG 6.1 International Conference, COORDINATION 2015  
Held as Part of the 10th International Federated Conference  
on Distributed Computing Techniques, DisCoTec 2015  
Grenoble, France, June 2–4, 2015  
Proceedings

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ISSN 0302-9743

ISSN 1611-3349 (electronic)

Lecture Notes in Computer Science

ISBN 978-3-319-19281-9

ISBN 978-3-319-19282-6 (eBook)

DOI 10.1007/978-3-319-19282-6

Library of Congress Control Number: 2015939278

LNCS Sublibrary: SL2 – Programming and Software Engineering

Springer Cham Heidelberg New York Dordrecht London

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# Foreword

The 10th International Federated Conference on Distributed Computing Techniques (DisCoTec) took place in Montbonnot, near Grenoble, France, during June 2–5, 2015. It was hosted and organized by Inria, the French National Research Institute in Computer Science and Control. The DisCoTec series is one of the major events sponsored by the International Federation for Information Processing (IFIP). It comprises three conferences:

- COORDINATION, the IFIP WG6.1 International Conference on Coordination Models and Languages.
- DAIS, the IFIP WG6.1 International Conference on Distributed Applications and Interoperable Systems.
- FORTE, the IFIP WG6.1 International Conference on Formal Techniques for Distributed Objects, Components and Systems.

Together, these conferences cover a broad spectrum of distributed computing subjects, ranging from theoretical foundations and formal description techniques to systems research issues.

Each day of the federated event began with a plenary keynote speaker nominated by one of the conferences. The three invited speakers were Alois Ferscha (Johannes Kepler Universität, Linz, Austria), Leslie Lamport (Microsoft Research, USA), and Willy Zwaenepoel (EPFL, Lausanne, Switzerland).

Associated with the federated event were also three satellite workshops, that took place on June 5, 2015:

- The 2nd International Workshop on Formal Reasoning in Distributed Algorithms (FRIDA), with a keynote speech by Leslie Lamport (Microsoft Research, USA).
- The 8th International Workshop on Interaction and Concurrency Experience (ICE), with keynote lectures by Jade Alglave (University College London, UK) and Steve Ross-Talbot (ZDLC, Cognizant Technology Solutions, London, UK).
- The 2nd International Workshop on Meta Models for Process Languages (MeMo).

Sincere thanks go to the chairs and members of the Program and Steering Committees of the involved conferences and workshops for their highly appreciated efforts. Organizing DisCoTec was only possible thanks to the dedicated work of the Organizing Committee from Inria Grenoble-Rhône-Alpes, including Sophie Azzaro, Vanessa Pergin, Martine Consigny, Alain Kersaudy, Sophie Quinton, Jean-Bernard Stefani, and the excellent support from Catherine Nuel and the people at Insight Outside. Finally, many thanks go to IFIP WG6.1 for sponsoring this event, and to Inria Rhône-Alpes and his director Patrick Gros for their support and sponsorship.

Alain Girault  
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# Preface

This volume contains the papers presented at COORDINATION 2015: the 17th IFIP WG 6.1 International Conference on Coordination Models and Languages held during June 2–4, 2015 in Grenoble. The conference is the premier forum for publishing research results and experience reports on software technologies for collaboration and coordination in concurrent, distributed, and complex systems. The key focus of the conference is the quest for high-level abstractions that can capture interaction patterns and mechanisms occurring at all levels of the software architecture, up to the end-user domain. COORDINATION called for high-quality contributions on the usage, study, formal analysis, design, and implementation of languages, models, and techniques for coordination in distributed, concurrent, pervasive, multi-agent, and multicore software systems.

The Program Committee (PC) of COORDINATION 2015 consisted of 32 top researchers from 12 different countries. We received 36 submissions out of which the PC selected 14 full papers and 1 short paper for inclusion in the program. All submissions were reviewed by three to four independent referees; papers were selected based on their quality, originality, contribution, clarity of presentation, and relevance to the conference topics. The review process included an in-depth discussion phase, during which the merits of all papers were discussed by the PC. The process culminated in a shepherding phase whereby some of the authors received active guidance by one member of the PC in order to produce a high-quality final version. The selected papers constituted a program covering a varied range of techniques for system coordination: tuple-based coordination, multi-party and logic-based coordination of ensembles, constraints-based coordination, agent-oriented techniques, and finally coordination based on shared spaces. The program was further enhanced by an invited talk by Alois Ferscha from Johannes Kepler Universität Linz (Austria).

The success of COORDINATION 2015 was due to the dedication of many people. We thank the authors for submitting high-quality papers, the PC and their subreviewers, for their careful reviews, and lively discussions during the final selection process, and the Publicity Chair for helping us with advertisement of the CFP. We thank the providers of the EasyChair conference management system, which was used to run the review process and to facilitate the preparation of the proceedings. Finally, we thank the Inria Grenoble—Rhône-Alpes Organizing Committee from Grenoble, led by Alain Girault, for its contribution in making the logistic aspects of COORDINATION 2015 a success.

June 2015

Tom Holvoet  
Mirko Viroli

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