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Giovanna Di Marzo Serugendo · Michele Loreti (Eds.)

Coordination Models and Languages

20th IFIP WG 6.1 International Conference, COORDINATION 2018
Held as Part of the 13th International Federated Conference
on Distributed Computing Techniques, DisCoTec 2018
Madrid, Spain, June 18–21, 2018
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Foreword

The 13th International Federated Conference on Distributed Computing Techniques (DisCoTec) took place in Madrid, Spain, during June 18–21, 2018. 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 (the conference celebrated its 20th anniversary in 2018)
- DAIS, the IFIP WG6.1 International Conference on Distributed Applications and Interoperable Systems (the conference is in its 18th edition)
- FORTE, the IFIP WG6.1 International Conference on Formal Techniques for Distributed Objects, Components and Systems (the conference is in its 38th edition)

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 speaker nominated by one of the conferences.

In addition to the three main conferences, two satellite events took place during June 20–21, 2018:

- ICE, the Workshop on Interaction and Concurrency Experience (in its 11th edition)
- FADL, Workshop on Foundations and Applications of Distributed Ledgers (this was the first year that the workshop took place)

I would like to thank the Program Committee chairs of the different events for their help and cooperation during the preparation of the conference and the Steering Committee of DisCoTec for its guidance and support. The organization of DisCoTec 2018 was only possible thanks to the dedicated work of the Organizing Committee, including the organization chairs, Jesús Correas and Sonia Estévez (Universidad Complutense de Madrid, Spain), the publicity chair, Ivan Lanese (University of Bologna/Inria, Italy), the workshop chairs, Luis Llana and Ngoc-Thanh Nguyen (Universidad Complutense de Madrid, Spain and Wroclaw University of Science and Technology, Poland, respectively), the finance chair, Mercedes G. Merayo (Universidad Complutense de Madrid, Spain), and the webmaster, Pablo C. Cañizares (Universidad Complutense de Madrid, Spain). Finally, I would like to thank IFIP WG6.1 for sponsoring this event, Springer's *Lecture Notes in Computer Science* team for their support and sponsorship, and EasyChair for providing the reviewing infrastructure.

June 2018 Manuel Núñez

Preface

This volume contains the papers presented at COORDINATION 2018: the 20th IFIP WG 6.1 International Conference on Coordination Models and Languages held during June 18–21, 2018, in Madrid, Spain. The conference was co-located with FORTE and DAIS, as part of the DisCoTec federated conferences on distributed computing techniques.

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 2018 consisted of 23 top researchers from 12 different countries. In all, 26 submissions were received out of 29 submitted abstracts. All submissions were reviewed by 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. At the end of the review process, 12 papers were accepted.

The selected papers constituted a program covering a varied range of topics and techniques related to system coordination, including: actor-based coordination, tuple-based coordination, agent-oriented techniques, constraints- based coordination, and finally coordination based on shared spaces. Five of the accepted papers are surveys. This was a new category of submission considered this year to celebrate the 20th edition of COORDINATION. These papers describe important results and successful stories that originated in the context of COORDINATION. The program was further enhanced by an invited talk by Franco Zambonelli from Università degli Studi di Modena-Reggio Emilia (Italy).

The success of COORDINATION 2018 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, Francesco Tiezzi, for helping us advertise 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 Organizing Committee from Universidad Complutense de Madrid, led by Manuel Núñez, for its contribution in making the logistic aspects of COORDINATION 2018 a success.

June 2018

Giovanna di Marzo Serugendo
Michele Loreti

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