

6th International Conference on Formal Structures for Computation and Deduction

FSCD 2021, July 17–24, 2021, Buenos Aires, Argentina
(Virtual Conference)

Edited by

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■ Preface

This volume contains the proceedings of the 6th International Conference on Formal Structures for Computation and Deduction (FSCD 2021). The conference was held during July 17 – July 24, 2021 as a virtual conference. It was initially planned to be held in Buenos Aires, Argentina, but was actually held as a virtual conference due to the COVID-19 pandemic. The conference (<https://fscd-conference.org/>) covers all aspects of formal structures for computation and deduction, from theoretical foundations to applications. Building on two communities, RTA (Rewriting Techniques and Applications) and TLCA (Typed Lambda Calculi and Applications), FSCD embraces their core topics and broadens their scope to include closely related areas in logics and proof theory, new emerging models of computation, semantics and verification in new challenging areas.

The FSCD program featured four invited talks given by Zena M. Ariola (University of Oregon, USA), Nao Hirokawa (JAIST, Japan), Elaine Pimentel (UFRN, Brazil), and Sam Staton (University of Oxford, UK). FSCD 2021 received 72 submissions with contributing authors from 22 countries. The program committee consisted of 31 members from 18 countries. Each submitted paper has been reviewed by at least three PC members with the help of 130 external reviewers. The reviewing process, which included a rebuttal phase, took place over nine weeks. A total of 28 regular research papers were accepted for publication and are included in these proceedings. The Program Committee awarded the FSCD 2021 Best Paper Award by Junior Researchers to Tom de Jong and Martín Hötzel Escardó for their paper “Predicative Aspects of Order Theory in Univalent Foundations”.

In addition to the main program, 7 FSCD-associated workshops were held, also virtually:

- HoTT/UF: 6th Workshop on Homotopy Type Theory/Univalent Foundations
- ITRS: 10th Workshop on Intersection Types and Related Systems
- WPTE: 7th International Workshop on Rewriting Techniques for Program Transformations and Evaluation
- UNIF: 35th International Workshop on Unification
- LSFA: 16th Logical and Semantics Frameworks with Applications
- IWC: 10th International Workshop on Confluence
- IFIP WG 1.6: 24th meeting of the IFIP Working Group 1.6: Rewriting

This volume of FSCD 2021 is published in the LIPIcs series under a Creative Commons license: online access is free to all papers and authors retain rights over their contributions. We thank the Leibniz Center for Informatics at Schloss Dagstuhl, in particular Michael Wagner for his prompt replies to any questions regarding the production of these proceedings.

Many people have helped to make FSCD 2021 a successful meeting. On behalf of the Program Committee, I thank the authors of submitted papers for considering FSCD as a venue for their work and the invited speakers who have agreed to speak at this meeting. The Program Committee and the external reviewers deserve special thanks for their careful review and evaluation of the submitted papers. The EasyChair conference management system has been a useful tool in all phases of the work of the Program Committee.

The associated workshops have made a big contribution to the lively scientific atmosphere of this virtual meeting and I thank the workshop organizers and workshop chairs Mauricio Ayala-Rincón and Carlos López Pombo for their efforts and enthusiasm in making sure that workshops continued to be an important element of FSCD. Alejandro Díaz-Caro, the Conference Chair, and the organising committee members of FSCD 2021 deserve special appreciation for the overall organization of the conference; although the conference was held



virtually at the end, they pursued various possibilities, including a hybrid conference. Carsten Fuhs, as Publicity Chair, made a significant contribution in advertising the conference. The steering committee provided excellent guidance in setting up this meeting and in ensuring that FSCD will have a bright and enduring future. I would like to especially thank Delia Kesner, the steering committee chair, for her numerous pieces of advice in managing the conference.

FSCD 2021 was held in-cooperation with ACM SIGLOG and ACM SIGPLAN. It was supported by Universidad de Buenos Aires, Universidad Nacional de Quilmes, CONICET (Grant RD2256), Ministerio de Ciencia, Tecnología e Innovación (Grant RC-RPI-2020-00004), Onapsis, IRIF (Institut de Recherche en Informatique Fondamentale), FUNDACEN (Fundación Ciencias Exactas y Naturales), the CNRS/CONICET International Research Project SINFIN, and CertiSur. Finally, I thank all of the participants of the virtual conference for contributing to the success of the event.

Naoki Kobayashi
Program Chair of FSCD 2021

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