29th International Conference on Types for Proofs and Programs

TYPES 2023, June 12-16, 2023, ETSInf, Universitat Politècnica de València, Spain

Edited by

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Preface

The TYPES meetings are a forum to present new and ongoing work in all aspects of type theory and its applications, especially in formalized and computer assisted reasoning and computer programming. This volume constitutes the post-proceedings of the 29th International Conference on Types for Proofs and Programs, TYPES 2023, that was held at Universitat Politècnica de València (UPV), from 12 to 15 June 2023.

The meetings from 1990 to 2008 were annual workshops corresponding to five consecutive EU-funded networking projects. Since 2009, TYPES has been run as an independent conference series. Previous TYPES meetings were organised by Antibes (1990), Edinburgh (1991), Båstad (1992), Nijmegen (1993), Båstad (1994), Torino (1995), Aussois (1996), Kloster Irsee (1998), Lökeberg (1999), Durham (2000), Berg en Dal near Nijmegen (2002), Torino (2003), Jouy-en-Josas near Paris (2004), Nottingham (2006), Cividale del Friuli (2007), Torino (2008), Aussois (2009), Warsaw (2010), Bergen (2011), Toulouse (2013), Paris (2014), Tallinn (2015), Novi Sad (2016), Budapest (2017), Braga (2018), Oslo (2019), Turin (2020), Leiden (2021), Nantes (2022). The 2020 and 2021 editions were virtual, because of the SARSCoV-2 pandemics.

The TYPES areas of interest include, but are not limited to: Foundations of type theory and constructive mathematics; Homotopy type theory; Applications of type theory; Dependently typed programming; Industrial uses of type theory technology; Meta-theoretic studies of type systems; Proof assistants and proof technology; Automation in computer-assisted reasoning; Links between type theory and functional programming; Formalizing mathematics using type theory; Type theory in linguistics.

The TYPES conferences are all based on contributed talks based on short abstracts, reporting work in progress and work presented or published elsewhere. After the conference, a post-proceedings volume is edited, comprising papers presenting original work that has not previously been published. Papers submitted to the post-proceedings are subject to a full peer-review process.

The conference program of TYPES 23 consisted of 61 contributed talks, and four invited talks by Yannick Forster (Inria Nantes, France), Marie Kerjean (CNRS, Université Sorbonne Paris Nord, France), Simona Ronchi Della Rocca (Università di Torino, Italy) and Andrej Bauer (University of Ljubljana, Slovenia). The conference was a successful event with 92 registered participants. All the details of the conference can be found at `https://types2023.webs.upv.es/`.

Concerning the post-proceedings, 10 papers were initially submitted, out of which 6 were accepted. We thank all the authors and reviewers for their hard work to make this possible!

Delia Kesner, Eduardo Hermo Reyes and Benno van den Berg, June 2024.

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