

31st International Conference on Types for Proofs and Programs

TYPES 2025, June 9–13, 2025, University of Strathclyde,
Glasgow, Scotland

Edited by

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LIPICS

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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 31st International Conference on Types for Proofs and Programs, TYPES 2025, that was held at the University of Strathclyde, Glasgow, Scotland, from 9 to 13 June 2025.

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), Valencia (2023), and Copenhagen (2024). The 2020 and 2021 editions were virtual, because of the SARS-CoV-2 pandemics.

The TYPES areas of interest include, but are not limited to: foundations of type theory; applications of type theory (e.g. linguistics or concurrency); constructive mathematics; 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; homotopy type theory and univalent mathematics.

The TYPES conferences are all based on contributed talks based on short abstracts; reporting work in progress and work presented or published elsewhere. A post-proceedings volume is prepared after the conference, whose papers must represent unpublished work. Submitted papers to the post-proceedings are subject to a full peer-review process.

The conference program of TYPES 2025 consisted of 82 contributed talks (of which 40 were 20 minutes long, and 42 were 15 minutes long), and four invited talks by Ingo Blechschmidt (University of Antwerp), Sonia Marin (University of Birmingham), Chris Martens (Northeastern University), and Christian Sattler (Chalmers University of Technology and University of Gothenburg). The programme also contained a co-located Women in EuroProofNet event dedicated to gender balance in our community, with Elaine Pimentel (University College London) as invited speaker. The conference was a successful event with 151 registered participants. All the details of the conference can be found at the conference website <https://msp.cis.strath.ac.uk/types2025/>.

For the post-proceedings, 22 papers were initially submitted, out of which 15 were accepted. We thank all the authors and reviewers for their hard work to make this possible.

Fredrik Nordvall Forsberg and James McKinna, June 2026.

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