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Proceedings of the ACM
on Programming Languages

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Proceedings of the ACM on Programming Languages (PACMPL) is a Gold Open Access journal publishing research on all aspects of programming languages, from design to implementation and from mathematical formalisms to empirical studies. Each issue of the journal is devoted to a particular subject area within programming languages and will be announced through publicized Calls for Papers. All accepted papers receive two rounds of reviewing and authors can expect initial decisions regarding submissions in under 3 months. The journal operates in close collaboration with the Special Interest Group on Programming Languages (SIGPLAN) and is committed to making high-quality peer-reviewed scientific research in programming languages free of restrictions on both access and use.

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Editorial Message

GUY L. STEELE JR., Oracle Labs, USA, *Associate Editor*

The Proceedings of the ACM series presents the highest-quality research conducted in diverse areas of computer science, as represented by the ACM Special Interest Groups (SIGs). The ACM Proceedings of the ACM on Programming Languages (PACMPL) focuses on research on all aspects of programming languages, from design to implementation and from mathematical formalisms to empirical studies. The journal operates in close collaboration with the Special Interest Group on Programming Languages (SIGPLAN) and is committed to making high-quality peer-reviewed scientific research in programming languages free of restrictions on both access and use.

This issue of the PACMPL journal publishes 19 articles that were submitted in response to a call for papers, as well as "letters of encouragement" sent by the program chairs to 62 specific language designers and implementation teams, seeking contributions that discuss and analyze the historical development of individual programming languages, programming language families, language features, design themes, and other strong influences on the direction of programming language design, implementation, and usage.

The articles were selected by means of an unusually rigorous multistage reviewing and shepherding process from 22 submissions that were submitted by the August 2018 deadline for first drafts. After a five-month initial review period, the program committee selected 19 of these for shepherding and further review. Second drafts for all 19 papers were submitted by August 2019. After another four-month review period, the program committee conditionally accepted all 19 papers with specific stated requirements for final revisions. "Final copy" versions of all 19 papers were submitted by the March 2020 deadline for this issue and checked one more time by the program chairs as well as by editorial staff.

I am excited by the compelling and thought-provoking work that resulted in this PACMPL issue. To provoke further discussion and dissemination, the authors were invited to also present their work to the programming languages community at the Fourth ACM SIGPLAN History of Programming Languages Conference (HOPL IV), which was to have been held in June 2020 in London (co-located with PLDI 2020) but was postponed because of the COVID-19 pandemic. Therefore I hope that you will instead be able to join us in June 2021 in Quebec City for HOPL IV (co-located with PLDI 2021). The conference will provide many opportunities to share ideas with programming language researchers and practitioners from institutions around the world.

It was an honor and a privilege to serve as *Associate Editor* for this issue of PACMPL, assisted by Richard P. Gabriel and HOPL IV Conference Historian Mark Priestley, and I would like to thank the many people who contributed to make this a success.

First, I would like to thank all the authors for contributing their papers, which they prepared and polished over a period of two and a half years, investing hundreds of hours of effort to produce the best papers possible.

Second, I would like to thank the reviewers, shepherds, and historian for their hard work; the high quality of the articles in this issue is also the result of these largely unsung volunteers. They have provided very useful feedback to the authors, in many cases spending hundreds of hours on their assignments, helping the authors to improve their work. The *Review Committee* for this issue consisted of HOPL IV Program Committee members Andrew Black, Steve Blackburn, Kim Bruce, Shigeru Chiba, Matthias Felleisen, Richard Gabriel, Brent Hailpern, Roberto Ierusalimschy,

Ralph Johnson, Crista Lopes, Mira Mezini, Ana Milanova, Jens Palsberg, Tomas Petricek, Keshav Pingali, John Reppy, Barbara Ryder, Sukyoung Ryu, Yannis Smaragdakis, Guy Steele (chair), Jean-Baptiste Tristan, Philip Wadler, Stephanie Weirich, and Allen Wirfs-Brock, plus External Reviewer Matthew Flatt. The *Shepherds* were HOPL IV Program Committee members Andrew Black, Kim Bruce, Shigeru Chiba, Richard Gabriel, Brent Hailpern, Roberto Ierusalimschy, Ralph Johnson, Crista Lopes, Mira Mezini, Jens Palsberg, Tomas Petricek, Keshav Pingali, Barbara Ryder, Sukyoung Ryu, Yannis Smaragdakis, Guy Steele, Jean-Baptiste Tristan, and Philip Wadler, plus External Shepherd Vijay Saraswat. The *Conference Historian* Mark Priestley examined every submission and provided advice to authors on how to write papers that would address history, not just technology.

Finally, I would like to thank the PACMPL Editorial Board and its Editor-in-Chief Philip Wadler for their advice, and I would like to thank SIGPLAN and its Executive Committee chaired by Jens Palsberg for supporting the gold open-access publication of the articles in PACMPL and for organizing a thriving programming language community that produces high quality research as exemplified in this issue.

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