31st European Conference on Object-Oriented Programming

ECOOP'17, June 18–23, 2017, Barcelona, Spain

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Contents

Abstracts of Keynote Lectures

Regular Papers

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Message from the PC Chair

Welcome to the 31st European Conference on Object-Oriented Programming! ECOOP'17 showcases exciting new research in programming languages and software engineering. The selected papers cover a wide range of topics, including theory, systems, and experimental work. The research track is complemented by seven workshops and the ECOOP summer school; together with the co-located Curry On, DEBS, and PLDI conferences, ECOOP'17 promises to be an inspiring event!

As in the previous years, ECOOP used light double-blind reviewing, where author names are withheld from a reviewer until they have submitted their initial review. We received 81 paper submissions. Each submission received between three and seven reviews. After an author response period, the papers were first discussed electronically; the program committee then discussed 48 submissions in depth at a physical PC meeting at ETH Zurich and selected 21 papers for publication. Some of these papers went through a shepherding phase to ensure that crucial comments were taken into account in the final version. Submissions authored by a PC member were held to slightly higher standards: they received at least five reviews (with one exception), had an external reviewer, were discussed and decided upon before the physical PC meeting, and were accepted only if there was no detractor and if shepherding was not required. We accepted six PC papers, leading to a total of 27 accepted papers, which are included in these proceedings. The PC selected the paper *Strong Logic for Weak Memory: Reasoning About Release-Acquire Consistency in Iris* by Jan-Oliver Kaiser, Hoang-Hai Dang, Derek Dreyer, Ori Lahav, and Viktor Vafeiadis for a Best Paper Award.

The final program includes three keynote talks: one by Wolfram Schulte, one by the winner of the 2017 Dahl-Nygaard Senior Award, Gilad Bracha, and one by the winner of the 2017 Dahl-Nygaard Junior Award, Ross Tate.

Any conference depends first and foremost on the quality of its submissions. I would like to thank all the authors who submitted their work to ECOOP'17! I am truly impressed by the members of the program committee. They produced insightful and constructive reviews, contributed very actively to the online and physical discussions, and were extremely helpful. It was a honor to work with all of you! I am also grateful to the external reviewers, who provided their expert opinions, often on short notice, and helped tremendously to reach well-informed decisions. The organizing committee worked very professionally. I'd like to thank especially the general chair Antonio Vallecillo and the comfy chair Jan Vitek, who were a constant source of encouragement and support. I'd also like to thank the artifact evaluation chairs Philipp Haller, Michael Pradel, and Tijs van der Storm for handling this important part of the evaluation process. Thanks also to the publicity chair Silvia Crafa and the web chair Javier Luis Cánovas Izquierdo for keeping the community informed about ECOOP'17. I am very grateful to the AITO executive board, especially Sophia Drossopoulou and Jan Vitek, for their trust and support. Finally, I'd like to thank Marlies Weissert for handling the logistics of the PC meeting and Malte Schwerhoff for his help with the proceedings.

Peter Müller
May, 2017

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Message from the Artifact Evaluation Chairs

The ECOOP artifact evaluation (AE) considers artifacts, such as software and experimental data, associated with a research paper published at ECOOP and reviews them independently of the paper. The goal is to independently reproduce the results reported in the paper and to provide a reusable tool, data set, etc., to the community. The long-term importance of artifacts for the research community has been widely accepted, and this year's ECOOP follows a sequence of previous artifact evaluations at ECOOP and other conferences.

Authors of a paper accepted to ECOOP 2017 were invited to submit an accompanying artifact. Each submitted artifact was reviewed by at least three members of the artifact evaluation committee. We used a two-phase reviewing process. In the first phase, called "kick-the-tires" phase, reviewers checked the documentation and the basic functionality of each artifact and provided feedback to the authors. Next, the authors could respond to this feedback and fix any minor issues, such as missing documentation or other problems that might prevent reviewers from fully using the artifact. Finally, in the second phase, reviewers thoroughly evaluated each artifact. In particular, the reviewers evaluated the quality of the documentation, whether the results reported in the paper could be reproduced by the artifact, and to what extent the artifact can be reused, e.g., for follow-up research.

In total, 18 artifacts were submitted for evaluation, i.e., for 67% of all accepted papers. Out of these 18 artifacts, the committee accepted 16, i.e., a 89% acceptance rate among the submitted artifacts. As a result, 59% of all research papers published at ECOOP 2017 have been successfully artifact evaluated.

The effort of creating an artifact is a long-term contribution to the research community. To recognize the effort invested by the authors, each artifact is archived in the Dagstuhl Artifacts Series (DARTS) published on the Dagstuhl Research Online Publication Server (DROPS). Each artifact is assigned a DOI, separate from the ECOOP companion paper, allowing the community to cite artifacts on their own. Furthermore, all research papers accompanied by an artifact show a seal of approval by the AEC on their first page.

The quality of the published artifacts depends not only on the authors but also on the artifact evaluation committee. This year's committee consisted of 19 members, all of which did a great job and invested significant time to ensure that artifacts meet their expectations. As the chairs of the artifact evaluation committee, we would like to thank all committee members for contributing their time and energy. The organization of the evaluation process and the publication of the artifacts volume in DARTS benefited greatly from the advice and experience of previous AEC chairs, in particular, Camil Demetrescu, Matthew Flatt, and Tijs van der Storm. The guidelines on artifact evaluation by Shriram Krishnamurthi, Matthias Hauswirth, Steve Blackburn, and Jan Vitek published on the Artifact Evaluation site (http://www.artifact-eval.org) were an invaluable resource. We are grateful for the assistance of Michael Wagner in the publication of the artifacts volume. Finally, we would like to thank the Program Chair Peter Müller for his help ensuring a smooth integration of the review process for research papers and the artifact evaluation process.

Philipp Haller, Michael Pradel, Tijs van der Storm
May, 2017

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Message from the President of AITO

This year marks the 50th anniversary of Object-Orientation in that it is 50 years since the first object-oriented programming language came into being, namely Simula 67, developed in Norway under the lead of Ole-Johan Dahl and Kristen Nygaard. Simula was originally developed to support simulation and the first version from 1964 was an extension of Algol 60 with support for simulation but without Object-Oriented features. These were introduced in 1967 and embodied in the next version of the language, Simula 67, that included fundamental concepts such as class, object, and inheritance, hereby marking what can be seen as the birth of Object-Orientation. In 2004, AITO established an annual prize in the name of the Ole-Johan Dahl and Kristen Nygaard to honor their pioneering work on object-orientation and Simula 67. At ECOOP 2017, we will mark the 50th anniversary in several ways including a banquet dinner talk about Simula 67.

On behalf of AITO, I would like to thank the people who contribute to making ECOOP 2017 a successful conference; we hope that you will find it inspiring and, perhaps, even fun.

Eric Jul
May, 2017

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