

32nd European Conference on Object-Oriented Programming

ECOOP 2018, July 16–21, 2018, Amsterdam, The Netherlands

Edited by

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■ Message from the Chairs

It is our great pleasure to welcome you to Amsterdam for ECOOP 2018, the 32nd European Conference on Object-Oriented Programming, to be held on July 16-21. ECOOP is the European forum for bringing together researchers, practitioners, and students to share their ideas and experiences in all topics related to programming languages, software development, object-oriented technologies, systems and applications.

This year, ECOOP is co-located with the International Symposium on Software Testing and Analysis (ISSTA 2018), and with CurryOn, a conference that is focused on the intersection of emerging languages and emerging challenges in industry. The ECOOP 2018 program includes technical papers and keynotes. Furthermore, ECOOP 2018 features workshops, a doctoral symposium, a posters session, and a summer school that are jointly organized with ISSTA 2018.

ECOOP 2018 received 66 submissions of research papers. Each submission was evaluated by at least three members of the Program Committee (PC). Similar to ECOOP 2017, a light-weight double-blind reviewing process was adopted in which authors did not reveal their name, identity, or affiliation in their submissions. Author identities were revealed to a reviewer only once his/her review was submitted. Authors were also given an opportunity to provide a response to the reviews before decisions were made.

The Program Committee met in Amsterdam, The Netherlands on April 5 and 6 to discuss the submissions and accepted 26 papers (39.4% acceptance rate). One paper, “Defensive Points-To Analysis: Effective Soundness via Laziness,” by Yannis Smaragdakis and George Kastrinis, was selected to receive an AITO Distinguished Paper Award. We thank our 24 PC members for their thorough reviewing and for attending the two-day physical PC meeting.

Authors of accepted papers were also invited to submit artifacts, which were evaluated by a separate Artifact Evaluation Committee (AEC). The committee received 13 artifacts and accepted 10 of them. We thank our Artifact Evaluation Chairs Maria Christakis, Philipp Haller, and Marianna Rapoport.

The ECOOP 2018 program includes three keynote talks. Harry Xu (University of California, Los Angeles) will present “Object-Orientation Meets Big Data: Performance Impact, Restoration, and Thoughts on Language Design” as part of winning the AITO Dahl-Nygaard Junior Prize in 2018. (The AITO Dahl-Nygaard Senior Prize was awarded to Lars Bak, who unfortunately is unable to attend ECOOP 2018.) The other two keynote talks are “Program Analysis for Everyone” by Oege de Moore (Semmler) and “Parser-Directed Test Generation” by Andreas Zeller (Saarland University).

The following workshops are colocated with ECOOP 2018 and ISSTA 2018:

- COP: 10th International Workshop on Context-Oriented Programming
- BenchWork: First Workshop on Reproducible Experiments and Benchmarking
- DPA: First Workshop on Declarative Program Analysis
- FTfJP: 20th Workshop on Formal Techniques for Java-like Programs
- ICOOLPS: 13th Implementation, Compilation, Optimization of Object-Oriented Languages, Programs and Systems Workshop
- INTUITESTBEDS: 4th Workshop on UI Test Automation & 8th Workshop on TESTing Techniques for event BasED Software
- ISAGT: Introspective Systems for Automatically Generating Tests
- ML4PL: 2nd International Workshop on Machine Learning for Programming Languages
- Panathon: Program analysis hackathon

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- SALAD: First International Workshop on Software debloating And Delaying
- SOAP: 7th International Workshop on the State Of the Art in Program Analysis
- TAV-CPS/IoT: Testing, Analysis, and Verification of Cyber-Physical Systems and Internet of Things
- VORTEX: Runtime verification Workshop
- WoSSCA: First International Workshop on Speculative Side Channel Analysis

We thank our Workshop Chairs Julian Dolby and William G.J. Halfond for putting together this comprehensive workshops program.

Bringing ECOOP 2018 into existence involved a great effort from the members of our community, and we would like to extend our most heartfelt thanks to everyone who worked hard to make this possible. We thank the authors and the keynote speakers, who provided the content of our program and are presenting their contributions at the conference. We cannot thank enough the Program Committee members, who reviewed many papers, wrote detailed reviews, travelled at their own expense to the Program Committee meeting, and helped us select the great program for the conference.

Many other people contributed to various aspects of the program: the Doctoral Symposium was chaired by Julia Belyakova, Cristian Cadar, and Jasper Schulz; Sarah Mount served as Diversity Chair; Annabel Satin served as Finance Chair; Jan Vitek and Andreas Zeller co-organized the Summer School; Alisa Maas and Ming-Ho Yee served as Student Volunteer Co-Chairs; Karim Ali managed the ECOOP web site; Nicolás Rosner served as Publicity Chair; Laurence Tratt served as Sponsorship Chair; Lisa Nguyen served as Posters Chair; and last but not least, Tijs van der Storm and Jurgen Vinju served as Local Organizing Chairs for ECOOP/ISSTA 2018.

We gratefully acknowledge our sponsor AITO as well as our financial supporters — Amazon, Facebook, Google, IBM Research, JetBrains, Mozilla, the National Science Foundation, the Office of Naval Research, Oracle, Semmle, Uber, and VMware — for their generous contributions. Finally, we want to thank all of the conference attendees for contributing to making the conference a success. We hope that you will find the ECOOP 2018 program interesting, thought-provoking, and inspiring, and that the conference will give you valuable opportunities to share ideas with researchers and practitioners from our vibrant community.

Frank Tip

*ECOOP 2018 General Chair
Northeastern University*

Todd Millstein

*ECOOP 2018 Program Chair
University of California, Los Angeles*

■ Message from the President of AITO

This year ECOOP is held in Amsterdam, co-located with ISSTA and Curry On. Object-oriented programming has moved from an esoteric, academic endeavor to be so mainstream that most undergraduate introductory programming courses in the world use some kind of object-oriented language. The number of different and specialized conferences has meant that there are many other events that attract the traditional ECOOP audience. So AITO believes that co-location with other events can provide cross-feed between different areas and different environments; specifically, Curry-On's mix of industry and academia is great — even fantastic at times.

This year, the Dahl-Nygaard prizes go to practitioners of object-oriented languages having contributed to efficient OO programs. The Senior prize goes to Lars Bak, who has spent decades as a practitioner trying — successfully — to build efficient implementations of object-oriented languages. Unfortunately, he will not be able to accept the prize at ECOOP 2018 — we will, hopefully, be able to invite him to ECOOP 2019 for a talk. The Junior Prize goes to Guoqing Harry Xu who has made significant contributions to different aspects of object orientation due to a unique combination of technical strength and ambition to deliver effective object-oriented programming technologies for big data systems.

On behalf of AITO, I would like to thank the people, including you, who contribute to making ECOOP 2018 a successful conference; we hope that you will find it inspiring and, we hope, even fun.

Eric Jul
AITO President
University of Oslo



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