



AST 2019

<http://ast2019.isti.cnr.it>

In Conjunction with ICSE 2019
(<https://2019.icse-conferences.org>)

May 27, 2019 - Montréal, QC, Canada



IMPORTANT DATES:

Submission deadline:

February 1, 2019

Notification of acceptance:

March 1, 2019

Camera-Ready version due:

March 15, 2019

Workshop date:

May 27, 2019

ORGANIZERS:

Workshop PC Co-Chairs

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Please see workshop website for
the workshop Program Committee.

Software testing is an integral and important part of the software engineering (SE) discipline. Effective software testing with reduced costs can be achieved through automation. In the past decades, much research effort has been spent on automated test case generation, automated test selection, automated test oracles. Automation of software test (AST) practice has also moved forward significantly with many available software test tools. However, progress in AST research is still required. Software systems have become more and more complicated with components developed by different vendors and using different techniques in different programming languages and even running on different platforms. The advent of agile methodology, continuous integration and shorter development and delivery cycles have posed new challenges and stricter constraints. Thus there is an urgent requirement to improve test automation to scale up productivity and quality in software development.

AST 2019 is the 14th edition of the successful AST series held at ICSE conferences since 2006. It will provide researchers and practitioners with a forum for exchanging ideas, experiences, understanding of the problems, visions for the future, and promising solutions.

WORKSHOP THEME

In addition to the broad AST theme and topics, every year the workshop launches a special focus theme. For AST2019 the theme is

Testing and Continuous Deployment

Continuous deployment has become a major strategy even for large software projects. As one of the main strategies in modern DevOps environments, continuous deployment aims to increase code velocity—the time between making a code change and shipping the change to customers. At the same time, DevOps and continuous deployment impose heavy constraints onto testing: (a) testing must be completely automated and act as the last safeguard against customer incidents; (b) testing should be fast without slowing down code velocity; and (c) testing is happening within the engineering teams (DevOps) rather than dedicated testing teams. In other words, test automation may have become more wanted than ever before and we seek contributions to highlight solutions, challenges, and problem statements for test automation in a continuous deployment world.

TOPICS OF INTEREST

Submissions on the AST 2019 theme are especially encouraged, but papers on other topics relevant to the automation of software test are also welcome. We are interested in the following aspects related to AST:

- 1) *Problems identification.* Analysis and specification of requirements for AST, and elicitation of problems that hamper wider adoption of AST.
- 2) *Methodology.* Novel methods and approaches for AST in the context of up-to-date software development methodologies.

3) *Technology.* Automation of various test techniques and methods for test-related activities, as well as for testing various types of software.

4) *Tools and Environments.* Issues and solutions in the development, operation, maintenance and evolution of tools and environments for AST, and their integration with other types of tools and runtime support platforms.

5) *Experiments, Empirical studies and Experience reports.* Real experiences in using automated testing techniques, methods and tools in industry.

6) *Visions of the future.* Foresight and thought-provoking ideas for AST that can inspire new powerful research trends.

WORKSHOP FORMAT

AST 2019 will have a more condensed structure than in the past editions as for logistic constraints we have to fit into a single day. The program will include one keynote talk, and, if space allows, the AST traditional charette session focusing on the AST 2019 theme. As a novelty, this year we have added industrial abstracts as a new kind of submission. Test practitioners are especially encouraged to contribute their experiences and insights, choosing between the industrial case study paper or the 2-pages abstract talks.

SUBMISSIONS

Two types of submissions are invited: *regular papers* (up to 7 pages) and *industrial abstracts* (up to 2 pages). Submissions must be unpublished original work and should not be under review or submitted elsewhere while being under consideration.

Regular papers include both Research papers that present research in the area of software test automation, and Industrial Case Study papers that report on practical applications of test automation.

Industrial abstract talks are specifically conceived to promote industrial participation: We require all authors of such papers to come from industry. Authors of accepted papers get invited to give a talk with same time length and within same sessions as regular papers.

The workshop submission website at the following URL:
<https://easychair.org/conferences/?conf=ast2019>

PUBLICATION OF PAPERS

The accepted workshop papers including both regular and case study papers, as well as the industrial abstracts, will be published in the AST 2019 Proceedings and included in the IEEE and ACM Digital Libraries. Authors of accepted papers are required to register and present the paper at the workshop in order for the paper to be included in the proceedings and the Digital Libraries.