

Call for Papers

Special Issue in Springer Software Quality Journal
on
Improving Software Quality Through Program Analysis
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= Overview

Formal methods are paramount to ensure strong guarantees on the correct behavior of software. Based on mathematics and logic, formal methods help practitioners construct technology that can ensure increasingly important concerns such as safety, security, reliability and accountability.

This special issue of the Software Quality Journal [1] is dedicated to program analysis techniques that can be used to improve the quality of software products. The special issue welcomes static and dynamic program analysis techniques, approaches based on theorem proving, model checking, and any other analysis technique that can help improving the quality of software systems.

Possible topics include, but are not limited to:

- model checking
- theorem proving
- correct by construction development
- model-based testing
- software testing
- symbolic execution
- static and dynamic analysis
- abstract interpretation
- analysis methods for dependable systems
- software certification and proof carrying code
- fault diagnosis and debugging
- verification and validation of large-scale software systems

= Requirements for Submission

Papers should be original and must not have been previously published or being currently under submission at any other venue. A paper extending a conference or workshop publication must contain at least 30% of new material to be considered for publication. In that case, a clear indication in the introduction is expected.

Manuscripts should be formatted according to the rules of the Software Quality Journal, available by following the "Instructions for Authors" link on the journal webpage [1], the CFP [2] and submit through [3], please make sure to select "SI: Improving Software Quality Through Program Analysis". See [4] for frequently asked questions.

= Reviewing Details

Each paper will be reviewed by at least two experts selected by the guest editors.

= Important dates

- Deadline for submissions: 27 Sep 2019
- First round reviews: 20th Dec 2019
- Submission of revised papers: Feb 2020
- Notification of acceptance: April 2020
- Camera-ready version: May 2020

= Guest Editors

All inquiries can be sent to the guest editors of the journal:

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= References

- [1] Software Quality Journal.
<https://www.springer.com/computer/swe/journal/11219>.
- [2] <https://www.springer.com/?SGWID=0-102-2-1470055-preview&dynamic=true>
- [3] <https://www.editorialmanager.com/sqjo/>
- [4] Springer Frequently Asked Questions, 2018.
<https://www.springer.com/gp/authors-editors/journal-author/frequently-asked-questions/3832>.