
# Call for Papers

# SAEroCon - The Sixth Workshop on Software Architecture Erosion and Architectural Consistency

Co-located with the
13th European Conference on Software Architecture (ECSA 2019).

Paris, France, September 9-10, 2019

## Motivation

The more complex a software system is and the longer a software system evolves, the more difficult it is to avoid effects like software architecture erosion or architectural drift. These effects lead to a situation where the realization of the system diverges from the intended architecture with resultant negative impacts on the quality attributes associated with the intended architecture. As studies have shown, untreated divergence can lead to systems which are impossible to maintain in the long run. Studies also suggest that software architecture erosion and architectural drift, and the inconsistencies resulting from these effects, are prevalent, yet under-researched problems in industrial practice. Technical challenges related to these problems are the subject matter of this conference:

- Recovery of intended architectures, particularly for legacy systems without documented intended architecture;
- Detection of erosion, drift, and inconsistencies;
- Avoiding or resolving the results of these effects efficiently;
- Organizational challenges like estimating the benefit of putting effort into pro-actively avoiding erosion.

The goal of the "Sixth Workshop on **S**oftware **A**rchitecture **Ero**sion and Architectural **Con**sistency (SAEroCon)" is to report on advances of work in these areas and thus intensify the exchange of ideas regarding the current state-of-the-art/practice. In addition, it aims to chart future research directions regarding architecture consistency, architecture recovery and architecture restoration. The workshop targets all software engineering researchers and practitioners interested in discussing ideas regarding these topics and shaping future research related to them.

## Topics

Topics of SAEroCon include but are not limited to

- Methods and techniques to ensure architecture consistency
- Methods and techniques to detect and prevent architectural inconsistencies or software architecture erosion
- Models and theories of architecture erosion and inconsistencies
- Artificial intelligence techniques to help architects improving software architecture and implementation
- Simulation and mining approaches to model architecture inconsistency and erosion
- Model-driven development and software architecture
- Software architecture recovery techniques and reverse engineering
- Reversing software architecture erosion
- Architectural refactoring and reengineering
- Metrics of architectural consistency
- Quantification of erosion and drift, technical debt

- Architectural (in)consistency in SPL
- Empirical studies of software architecture erosion, restoration and evaluation
- Case studies of detecting and controlling software architecture erosion
- Industrial experiences with architectural erosion and drift

## Paper Submission

Prospective participants are invited to submit a position paper (3-4 pages) or full paper (max. 7 pages) in these or other relevant areas. Submission of experience reports from industry or papers postulating research challenges based on industrial experiences are highly encouraged and welcome.

We furthermore encourage submissions of short papers (2-3 pages) describing contributions to the "SAEroCon repository". The goal of this repository is to collection ground-truth intended architectures and implementations of systems to support empirical research in the workshop's area of research. For more details, please see the workshop's webpages on the repository and instructions for authors.

Workshop papers must follow the ACM format. All submissions will be reviewed by members of the program committee and the organizing committee for quality and relevance. Submissions must be original work, i.e., unpublished and not submitted anywhere else for publication. Papers must be submitted as PDF documents via EasyChair. Accepted papers will become part of the workshop proceedings and will be entered into ACM Digital Libraries. At least one author is required to register for the workshop and to present the paper.

## Workshop Format

SAEroCon is known for its highly interactive paper presentation sessions for which authors are asked to sum up another participant's paper to foster interaction and discussion.

As in previous years, the workshop will also host "hands-on" architecting sessions in which architects of open source systems will interact with researchers and tools to derive/recover architectural views of their systems. Attendees wishing to partake in these sessions will be asked to submit an agenda to the workshop organizers in advance.

## Important Dates

- Submission of Abstracts (mandatory): June 3, 2019
- Submission of Papers: June 7, 2019
- Notification of Acceptance: June 26, 2019
- Camera-Ready Papers: July 5, 2019
- Workshop: September 9-10, 2019

Please visit the workshop webpage at http://saerocon.wordpress.com for further information and updates.

## Workshop Organization

### Workshop Chairs:


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### Programme Committee

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More information, including submission page, at saerocon.wordpress.com