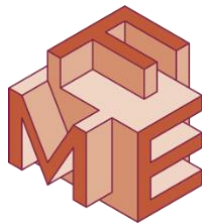


# Call for Papers (FM 2019 Symposium)

23rd International Symposium on Formal Methods – 3rd World Congress on Formal  
Methods

Porto, Portugal, October 7-11, 2019



**FM 2019** is the 23rd international symposium in a series organised by *Formal Methods Europe* ([FME](#)), an independent association whose aim is to stimulate the use of, and research on, formal methods for software development. Every 10 years the symposium is organised as a *World Congress*. Twenty years after **FM'99** in Toulouse, and ten years after **FM'09** in Eindhoven, **FM'19** is the 3rd World Congress on Formal Methods. This is reflected in a Program Committee with members from over 40 countries. Thus, **FM'19** will be both an occasion to celebrate and a platform for enthusiastic researchers and practitioners from a diversity of backgrounds to exchange their ideas and share their experience.

## ***Formal Methods: the next 30 years***

*It is now more than 30 years since the first VDM symposium in 1987 brought together researchers with the common goal of creating methods to produce high quality software based on rigour and reason. Since then the diversity and complexity of computer technology has changed enormously and the formal methods community has stepped up to the challenges those changes brought by adapting, generalising and improving the models and analysis techniques that were the focus of that first symposium. The theme for **FM 2019** is a reflection on how far the community has come and the lessons we can learn for understanding and developing the best software for future technologies.*

## Important Dates

Abstract submission: March 28, 2019

Full paper submission: April 11, 2019, 23:59 AoE

Notification: June 11, 2019

Camera ready: July 9, 2019

Conference: October 7-11, 2019

## Topics of Interest

**FM 2019** encourages submissions on formal methods in a wide range of domains including software, computer-based systems, systems-of-systems, cyber-physical systems, human-computer interaction, manufacturing, sustainability, energy, transport, smart cities, and healthcare. We particularly welcome papers on techniques, tools and experiences in interdisciplinary settings. We also welcome papers on experiences of formal methods in industry, and on the design and validation of formal methods tools. The broad topics of interest for **FM 2019** include, but are not limited to:

- *Interdisciplinary formal methods*: Techniques, tools and experiences demonstrating the use of formal methods in interdisciplinary settings.
- *Formal methods in practice*: Industrial applications of formal methods, experience with formal methods in industry, tool usage reports, experiments with challenge problems. The authors are encouraged to explain how formal methods overcame problems, led to improved designs, or provided new insights.
- *Tools for formal methods*: Advances in automated verification, model checking, and testing with formal methods, tools integration, environments for formal methods, and experimental validation of tools. The authors are encouraged to demonstrate empirically that the new tool or environment advances the state of the art.
- *Formal methods in software and systems engineering*: Development processes with formal methods, usage guidelines for formal methods, and method integration. The authors are encouraged to evaluate process innovations with respect to qualitative or quantitative improvements. Empirical studies and evaluations are also solicited.
- *Theoretical foundations of formal methods*: All aspects of theory related to specification, verification, refinement, and static and dynamic analysis. The authors are encouraged to explain how their results contribute to the solution of practical problems with formal methods or tools.

## Submission Guidelines

Papers should be original work, not published or submitted elsewhere, in **Springer LNCS** format, written in English, submitted through **EasyChair** (<https://easychair.org/conferences/?conf=fm2019>).

Each paper will be evaluated by at least three members of the Programme Committee. Authors of papers reporting experimental work are strongly encouraged to make their experimental results available for use by the reviewers. Similarly, case study papers should describe significant case studies, and the complete development should be made available at the time of review. The usual criteria for novelty, reproducibility, correctness and the ability for others to build upon the described work apply. Tool papers should explain enhancements made compared to previously published work. A tool paper need not present the theory behind the tool but should focus on the tool's features, how it is used, its evaluation, and examples and screen shots illustrating the tool's use. Authors of tool papers should make their tool available for use by the reviewers.

We solicit two categories of papers:

- *Regular Papers* should not exceed 15 pages, not counting references and appendices.
- *Short papers*, including tool papers, should not exceed 6 pages, not counting references and appendices. Besides tool papers, short papers are encouraged for any topic that can be described within the page limit, and in particular for novel ideas without an extensive experimental evaluation. Short papers will be accompanied by short presentations.

For regular and tool papers, an appendix can provide additional material such as details on proofs or experiments. The appendix is not part of the page count and not guaranteed to be read or taken into account by the reviewers. It should not contain information necessary to the understanding and the evaluation of the presented work. Papers will be accepted or rejected in the category in which they were submitted.

At least one author of an accepted paper is expected to present the paper at the conference as a registered participant.

### **Best Paper Award**

At the conference, the PC Chairs will present an award to the authors of the submission selected as the **FM 2019 Best Paper**.

## Publication

Accepted papers will be published in the Symposium Proceedings to appear in **Springer's Lecture Notes in Computer Science** in the subline on **Formal Methods**. Traditionally, extended versions of selected papers will be invited for publication in a special issue of one or more journals.



## Program Committee Chairs

- [Annabelle McIver](#), Macquarie University
- [Maurice ter Beek](#), Istituto di Scienza e Tecnologie dell'Informazione

## [Program Committee](#)

## [Organising Committee](#)