

# Preface

This volume contains the proceedings of the *Fourth International Workshop on Formal Techniques for Safety-Critical Systems* (FTSCS 2015), held in Paris on November 6–7, 2015, as a satellite event of the ICFEM conference.

The aim of FTSCS is to bring together researchers and engineers who are interested in the application of formal and semi-formal methods to improve the quality of safety-critical computer systems. FTSCS strives to promote research and development of formal methods and tools for industrial applications, and is particularly interested in industrial applications of formal methods. Specific topics of the workshop include, but are not limited to:

- case studies and experience reports on the use of formal methods for analyzing safety-critical systems, including avionics, automotive, medical, and other kinds of safety-critical and QoS-critical systems;
- methods, techniques, and tools to support automated analysis, certification, debugging, etc., of complex safety/QoS-critical systems;
- analysis methods that address the limitations of formal methods in industry (usability, scalability, etc.);
- formal analysis support for modeling languages used in industry, such as AADL, Ptolemy, SysML, SCADE, Modelica, etc; and
- code generation from validated models.

FTSCS 2015 received 41 regular paper submissions and five work-in-progress paper submissions. Each submission was reviewed by at least three reviewers. Based on the reviews and on extensive discussions, the program committee selected 15 of these regular papers and two work-in-progress papers for presentation at the workshop. This volume contains revised versions of those 15 regular papers, as well as an invited paper by José Meseguer. As was the case for FTSCS 2012–2014, a special issue of the *Science of Computer Programming* journal will be devoted to extended versions of selected papers from FTSCS 2015.

Many colleagues and friends contributed to FTSCS 2015. We thank José Meseguer for accepting our invitation to give an invited talk and the authors who submitted their work to FTSCS 2015 and who made this workshop an interesting event. We are particularly grateful to the members of the program committee, who all provided timely, insightful, and detailed reviews.

We also thank the editors of Springer’s *Communications in Computer and Information Science* (CCIS) series for publishing the proceedings of FTSCS 2015, Bas van Vlijmen for accepting our proposal to devote a special issue of *Science of Computer Programming* to extended versions of selected papers from FTSCS 2015, and Fatiha Zaïdi and Étienne André for their help with local arrangements.

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