

Preface

The 14th edition of the International Conference on Software Engineering and Formal Methods (SEFM) presented new advances and research results in the fields of software engineering and formal methods. The conference brought together leading researchers and practitioners from academia and industry, to advance the state of the art in formal methods, to facilitate their uptake in the software industry, and to encourage their integration within practical software engineering methods and tools.

Authors were invited to submit full research papers describing original research results, case studies, and tools; and short new ideas/work-in-progress papers describing new approaches, techniques, and/or tools not fully validated yet. The topics of interest for submission included the following aspects of software engineering and formal methods:

- New frontiers in software architecture: self-adaptive, service-oriented, and cloud computing systems; component, object, and multi-agent systems; real-time, hybrid, and embedded systems; reconfigurable systems
- Software verification and testing: model checking, theorem proving, and decision procedures; verification and validation; probabilistic verification and synthesis; testing, re-engineering, and reuse
- Software development methods: requirement analysis, modeling, specification, and design; light-weight and scalable formal methods; software evolution, maintenance, and reuse
- Application and technology transfer: case studies, best practices, and experience reports; tool integration, education, HCI, interactive systems, and human error analysis
- Security and safety: security and mobility; safety-critical, fault-tolerant, and secure systems; software certification
- Design principles: programming languages, domain-specific languages, type theory, abstraction, and refinement.

SEFM 2016 received 114 submissions of abstracts that materialized as 88 papers. All submitted papers underwent a rigorous review process, and each paper received at least three reviews. After a careful discussion phase, the international Program Committee decided to select 20 research papers and five new ideas/work-in-progress short papers. These papers cover a wide variety of topics from areas where formal methods can be applied to software engineering. They also address a broad range of application domains.

The conference featured two keynote talks, by Erika Ábrahám (RWTH Aachen University, Germany) and Gul Agha (University of Illinois at Urbana-Champaign, USA); their presentations were accompanied by the invited papers that can be found at the beginning of this volume.

We would first like to thank the STAF general chair, Gerti Kappel, for her support with planning and running the conference, the local Organization Committee for taking care of the local arrangements, the SEFM Steering Committee for their assistance, and the SEFM local support team for the local and technical support. We are grateful to EasyChair for the support with the paper submission and reviewing process, and with the preparation of this volume. We were able to put together an exciting technical program that would not have been possible without the excellent work of the Program Committee members and their external reviewers.

Finally, we would like to thank the authors of all submitted papers, our invited speakers, and all the participants of the conference in Vienna, all of whom contributed to the success of the 2016 edition of SEFM.

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