

Formal Methods in Software Engineering: Rigorous and Agile Approaches (FormSERA)

We would like to take this opportunity to welcome you to the first FormSERA (Formal Methods in Software Engineering: Rigorous and Agile Approaches) workshop. We had a total of sixteen submissions, of which eight were accepted after a rigorous review procedure; leaving us with a paper acceptance rate of 50%.

The workshop addresses the use of formal methods in software development practice. Formal methods differ from many software engineering techniques in that they demand and exploit a mathematically rigorous semantic basis for the tools and notations used. Such sound foundations permit the analysis of software engineering artifacts to a depth, and with a degree of automation, that is otherwise impossible to achieve.

Ample studies show that formal techniques can be used in industrial settings, given careful and tool-supported application. However, the maturing of formal techniques into real-life software engineering involves providing notations and tools that are readily understood and used by practitioners, and the integration of such tools with activities that are far from the unrealistic assumptions that characterized some earlier research in formal methods. Examples include deployment of formal methods in conjunction with structured requirements analysis and modeling, programming practices, test technology, aspect-oriented techniques and agile development practices. Areas of interest for the workshop therefore include but are not limited to:

- Formal methods in the context of agile approaches
- Formal Methods in requirement elicitation and analysis
- Formal specification and design
- Formal Methods in testing, re-engineering and reuse
- Formal Methods in software verification
- Formal Methods in a Certification Context
- Model-based development
- Light-weight formal methods

Making progress in the industry usability of formal methods requires bringing formalists together with software engineers from a wide range of backgrounds. This need to achieve dialogue between the fairly small formal methods community and the (much larger) community of software scientists and practitioners forms the principal motivation holding for our workshop, and for our desire to hold it at ICSE. In addition to contributed papers, the conference program includes a keynote speaker.

We are grateful to Prof. Michael Jackson (The Open University and University of Newcastle, UK) for accepting our invitation to address the workshop.



We would like to thank the Program Committee members for their help in making the selection of the papers. We also would like to thank the members of the Organizing Committee whose efforts contributed to make the workshop a success and a particular thank goes to the Workshops Chairs Alex Orso (Georgia Institute of Technology, USA), Ralf Reussner, (KIT, Germany) and to the Proceedings Chair Kurt Schneider (University of Hannover, Germany).

Stefania Gnesi, Stefan Gruner, Nico Plat and Bernhard Rumpe
Workshop chairs
Zürich, 2 June 2012

Workshops Chairs

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