Overview and Scope

There is an increasing demand in industry to use formal methods for verification and validation of safety-critical systems, in avionics, automotive, medical, and other cyber-physical systems. Newer standards, such as DO-178C (avionics) and ISO 26262 (automotive), emphasize the need for formal methods and model-based development, speeding up their adaptation in industry.

The aim of this workshop is to bring together researchers and engineers who are interested in the application of formal and semi-formal methods. Specific topics include, but are not limited to:

- formal methods in safety-critical systems, including avionics, automotive, medical, and other safety-/QoS-critical systems
- case studies and experience reports
- methods, techniques and tools
- limitations of formal methods in industry (usability, scalability)
- formal analysis support for modeling languages used in industry, such as AADL, Ptolemy, SysML, SCADE, Modelica
- code generation from validated models

Publication

Accepted papers in categories A – D will appear in the proceedings of the workshop, published as a volume in Springer’s Communications in Computer and Information Science (CCIS) series.

Authors of selected accepted papers will be invited to submit extended versions to appear in a special issue of the Science of Computer Programming journal.

Submission

We solicit submissions reporting on:

A — original research contributions (15 pages max)
B — applications and experiences (15 pages max)
C — surveys, comparisons, state-of-the-art reports (15 p. max)
D — tool papers (5 pages max)
E — position papers and work in progress (5 pages max)

Important Dates

Submission deadline: September 1, 2013
Notification: September 28, 2013
Workshop: October 29, 2013