



# Call for Papers

SAVCBS'07

Workshop at  
ACM ESEC/FSE 2007  
September 3-4, 2007

The sixth workshop on specification and verification of component-based systems is affiliated with [ACM ESEC/FSE 2007](#) and will be held in Dubrovnik, Croatia, during September 3-4, 2007. **Eight page papers** are due on **June 25, 2007**. Details on paper submission follow a general description of the workshop below.

## Theme and Topics of Interest

SAVCBS is focused on using formal (i.e., mathematical) techniques to establish a foundation for the specification and verification of component-based systems. Specification techniques are urgently needed to support effective reasoning about systems composed from components. Component-based approaches also underscore the need for scaling advanced verification techniques such as extended static analysis and model checking to the size of real systems. The workshop will consider formalization of both functional and non-functional behavior (such as performance or reliability). Suggested research topics of interest include (but are not limited to):

- Techniques for component-based verification or reasoning
- Component-based specification languages
- Static analysis of components and component compositions
- Verification-oriented design methodologies for components
- Dynamic checking techniques, including run-time assertion or property checking
- Specification and verification of non-functional component behavior (performance, memory, concurrency, etc.)
- Unifying formal descriptions of concurrency properties with model-based behavioral descriptions of components
- Balancing tradeoffs (automatic/manual verification, soundness/completeness, static/dynamic verification, testing/formal verification, scalability/coverage, etc.)
- Theories of component composition
- Industrial experience, such as adoption issues, with formal techniques for component-based systems
- Case studies of applying formal techniques to component based systems
- Educational experience or tactics for formal approaches to component-based systems

Submissions should outline the current state of research or practice, describe the most pressing shortcomings, and formulate goals for future development.

## **Challenge Problem**

One session during the workshop will be devoted to presenting solutions (full or partial) to a challenge problem. This problem presents features that pose difficulties for current specification technologies. The session will be open both to presenters as well as participants of the workshop. Details on the challenge problem are posted at <http://www.cs.iastate.edu/SAVCBS/2007/challenge.shtml>. Solutions should illustrate innovative features of specification or verification as they pertain to this particular problem.

## **Submissions / Publication**

Invitation to the workshop will be based on accepted position papers. An ideal position paper would identify new research topics, areas, or problems related to component-based software engineering. It should address the following questions.

- What is the problem (or topic or area) that is being described?
- What is the significance of the problem for component-based software engineering?
- What theoretical or practical insights might help to solve this problem?
- What related work is there about the problem and the theoretical approach?
- How does it compare?

### **Important dates**

**Submission deadline: June 25, 2007**

Notification date: July 15, 2007

Final versions: August 23, 2007

### **Details**

Submissions must not exceed 8 pages, including figures and bibliographical references. We encourage, but do not require, use of the ACM Conference format. We also suggest that you add page numbers to your submission, to make adding comments easier. Papers will be accepted in PDF or Postscript format. Papers will be submitted on-line at <http://www.easychair.org/SAVCBS07/>.

We will notify authors that are selected for presentation to the workshop by July 15, 2007. Some authors will be invited to attend but not to present their work formally, and others may have short presentations. All invited authors will have pages in the workshop proceedings. Final versions of papers for invited authors will be due on August 23, 2007.

Papers will be part of the ACM Digital Library, and so authors of accepted papers will be asked to sign an ACM copyright form. Copies of the proceedings will be available on the web before the workshop.

## **Program Committee:**

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Visit <http://www.cs.iastate.edu/SAVCBS/> for more details.