



FACS 2008 Call for Papers

5th International Workshop on
Formal Aspects of Components Software

September 10-12, 2008 - Málaga (Spain)

<http://www.iist.unu.edu/facs08/>

Important Dates:

Abstract submission: **May 9, 2008**
Paper submission: **May 16, 2008**
Acceptance notification: **June 20, 2008**
Camera ready: **July 18, 2008**
Workshop: **September 10-12, 2008**

Program Chairs:

- Carlos Canal (University of Málaga, Spain)
- Corina Pasareanu (NASA Ames Research Center, USA)

Program Committee:

- Farhad Arbab, CWI, The Netherlands
- Luis Barbosa, University of Minho, Portugal
- Frank S. de Boer, CWI, The Netherlands
- Tevfik Bultan, University of California at Santa Barbara
- Carlos Canal, University of Málaga, Spain (PC chair)
- Paolo Ciancarini, Università di Bologna, Italy
- Dimitra Giannakopoulou, NASA Ames Research Center, USA
- Rolf Hennicker, Ludwig-Maximilians-Universität München, Germany
- Atsushi Igarashi, University of Kyoto, Japan
- Sarfraz Khurshid, University of Texas at Austin, USA
- Zhiming Liu, UNU-IIST, Macau, China
- Markus Lumpe, Swinburne University of Technology, Australia
- Eric Madelaine, INRIA, Centre Sophia Antipolis, France
- Jeff Magee, Imperial College, United Kingdom
- Rupak Majumdar, University of California at Berkeley, USA
- Vladimir Mencl, Charles University, Czech Republic, and University of Canterbury, New Zealand
- Marius Minea, Politehnica University of Timisoara, Romania
- Corina Pasareanu, NASA Ames Research Center, USA (PC chair)
- Frantisek Plasil, Charles University, Czech Republic
- Pascal Poizat, ARLES Project-team, INRIA and Université d'Évry, France
- Ralf Reussner, Universität Karlsruhe, Germany
- Bernhard Schaetz, Technical University of Munich, Germany
- Clemens A. Szyperski, Microsoft, USA
- Carolyn Talcott, SRI International, USA
- Emilio Tuosto, University of Leicester, United Kingdom
- Kurt Wallnau, Carnegie-Mellon University, USA

Keynote Speakers:

The invited speakers for the 2008 edition will be Jeff Magee from the Imperial College (United Kingdom), and Ralf Reussner from the University of Karlsruhe, in Germany.

Steering Committee:

- Zhiming Liu (IIST UNU, Macau, China, chair)
- Farhad Arbab (CWI, The Netherlands)
- Luis Barbosa (Universidade do Minho, Portugal)
- Markus Lumpe (Swinburne University of Technology, Australia)
- Eric Madelaine (INRIA, Sophia-Antipolis, France)
- Vladimir Mencl (Charles University, Prague, Czech Republic, and University of Canterbury, New Zealand)
- Bernhard Schaetz (Technical University of Munich, Germany)

Organising Committee:

- Javier Cámara (University of Málaga, Spain)
- Carlos Canal (University of Málaga, Spain)
- Javier Cubo (University of Málaga, Spain)
- Antonio Martín (University of Málaga, Spain)
- Meriem Ouederni (University of Málaga, Spain)
- Ernesto Pimentel (University of Málaga, Spain)
- Gwen Salaün (University of Málaga, Spain)

FACS'08 is the fifth event in a series of workshops, founded by the International Institute for Software Technology of the United Nations University (UNU-IIST). The first FACS workshop was co-located with FM'03 (Pisa, Italy, September 2003). The following FACS workshops were organised as standalone event respectively at UNU-IIST in Macau (October 2005), at Charles University in Prague (September 2006), and at INRIA in Sophia-Antipolis (September 2007). FACS'08 is planned again as a separate event organised by the University of Málaga in September 2008.

Scope & Topics:

Component-based software emerged as a promising paradigm to deal with the ever increasing need for mastering systems' complexity, for enabling evolution and reuse, and for driving software engineering into sound production and engineering standards. However, many issues in component-based software development remain open and challenging research questions. On the other hand, formal methods are mathematically-based techniques for the specification, development and verification of software and hardware systems. Therefore, they are of great use to set up formal foundations of component software and work out challenging issues such as mathematical models for components, their composition and adaptation, or rigorous approaches to verification, deployment, testing and certification.

The objective of FACS'08 is to bring together researchers in the areas of component software and formal methods to promote a deep understanding of this paradigm and its applications. The workshop will also be interested in defining the common aspects of components and component-based development. It is expected that formal paper presentations will be followed by lively discussions. Possible topics include, but are not limited to:

- formal models for software components and component interaction
- design and verification methods for component software
- component composition and deployment: models, calculi, languages
- component testing, re-engineering and reuse
- specification of extra-functional properties in component software
- certification of components and software architectures
- component software vs. object orientation, multi-agent systems, and aspect oriented development
- components for real-time, safety-critical, secure and/or embedded systems
- standard models for software components (e.g. Fractal, GCM, etc.)
- industrial or experience reports, and case studies in component software
- partial behaviour models for software components
- update and reconfiguration of component architectures
- component systems evolution and maintenance
- formal methods and modeling languages
- trust models for components
- autonomic components and self-managed applications
- formal / rigorous approaches to software adaptation and self-adaptive systems
- formal aspects of Web services and business processes
- component-based Web services and service-oriented architectures

Submission & Proceedings:

Submissions to the workshop should present original research which is unpublished and not submitted for publication elsewhere. Papers will be judged on the basis of originality, relevance, technical soundness and presentation quality. Papers should be written in English and not exceed 15 pages in ENTCS format. Note that to encourage submission of work still in progress, we may also accept promising papers to be presented at the workshop, and accept them conditionally for inclusion in the ENTCS proceedings. Submission of papers will be in electronic form via EasyChair, accessible through the workshop website. The final version of the paper must be prepared in LaTeX, adhering to the ENTCS format (see <http://www.entcs.org/final.html>).

A special issue containing extended versions of selected papers from FACS08 will be published in Science of Computer Programming (SCP). Selected participants will be invited to submit an extended version of their papers after the workshop. These extended versions will be reviewed by an international program committee, which will decide on their final publication on the special issue.