

WS-FM 2007

4th International Workshop on Web Services and Formal Methods

28-29 September 2007, Brisbane, Australia

Co-located with the 5th International Conference on Business Process Management (BPM'07)

Web Service technology aims at empowering providers of services, in the broad sense, with the ability to package and deliver their services by means of software applications available on the Web. Existing infrastructures for Web Services already enable providers to describe services in terms of structure, access policy and behavior, to locate services, to interact with them, and to bundle simpler services into more complex ones. However, innovations are needed to seamlessly extend this technology in order to deal with challenges such as managing interactions with stateful and long-running Web Services, managing large numbers of Web Services, managing the quality of Web Service delivery, etc.

Formal methods play a fundamental role in shaping innovations in Web Service technology. For instance, formal methods help to define and to understand the semantics of languages and protocols that underpin existing infrastructures for Web Services, and to formulate features that are found to be lacking. They also provide a basis for reasoning about Web Service behavior, for example to discover services that can fulfill a given goal. Finally, formal analysis of security properties and performance are essential in application areas such as e-commerce. Naturally, the scope for using formal methods in the area of Web Services is much wider.

The aim of the workshop is to bring together researchers working on Web Services and Formal Methods in order to facilitate fruitful collaboration. The scope of the workshop is not purely limited to technology aspects. It also covers approaches to analyzing and designing systems based on Web Service technology, such as service-oriented architecture and business process modeling. In fact, the WS-FM workshop has a tradition of attracting submissions dealing with formal approaches to enterprise systems modeling in general, and business process modeling in particular. From 2007, the workshop will be taking over the activities of the online community formerly known as the “Process Modelling Group” (<http://www.petripi.org>).

Topics of interest include, but are not limited to:

- Formal approaches to service-oriented analysis and design
- Formal approaches to enterprise modeling and business process modeling
- Model-driven development, testing, and analysis of web services
- Web services for business process management
- Security, performance and quality of web services
- Web service coordination and transactions
- Web service ontologies and semantic description
- Goal-driven discovery and composition of web services

- Complex event processing in service-oriented architectures
- Semi-structured data management and XML technology

Submissions

Submissions must be original and should not have been published previously or be under consideration for publication while being evaluated for this workshop. Two categories of submission are being sought:

- Regular papers that will be refereed against criteria such as originality, significance, technical soundness and presentation. Accepted regular papers will be given 30-minute slots at the workshop and will be included in the formal proceedings to be published after the workshop (i.e. post-workshop proceedings).
- Short papers (i.e. extended abstracts) will be refereed against originality, potential for significant outcomes, and presentation. Authors of accepted short papers will be given an opportunity to extend their papers into regular papers immediately after the workshop for possible inclusion in the post-workshop proceedings after a second round of reviews.

We also encourage the submission of papers describing tools that apply formal methods in the context of Web Services and related technology. Such papers can be submitted either as regular or as short papers depending on the maturity of the tool and its underpinning foundations.

Papers are to be prepared in LNCS format and must not exceed 15 pages for regular submissions and 5 pages for short submissions.

The post-workshop proceedings will be published a few months after the workshop as a volume in Springer's Lecture Notes in Computer Science (LNCS). In addition, we intend to publish a journal special issue inviting full versions of papers selected among those presented at the workshop.

Important Dates

Abstract submission deadline: 8 June 2007

Paper submission deadline: 15 June 2007

Author notification: 20 July 2007

Workshop dates: 28-29 September 2007

The preparation of papers for formal publication will take place in the months following the workshop.

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