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(Eds.)

## **ICSOC/ServiceWave 2009 PhD Symposium**

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## Preface

The Web has affirmed its undisputable role as communication platform not only for human actors, for instance, exchanging emails or instant messages, but also for software actors interacting via protocols like HTTP, SOAP, SMTP, or the like. In this context, today's industrial and academic research efforts are characterized by a huge interest in service-oriented technologies, models, architectures, paradigms, etc., especially for the development of distributed, web-based services and applications.

In its beginning, the service-oriented computing community mainly focused its attention to the problem of abstracting from implementation details and devising technology-agnostic communication protocols, such as SOAP (and its various extensions), in order to enable reliable communication and exchange of information among software actors. Then, the attention was (and still is) captured by the problem of service composition, yielding a variety of approaches (e.g., declarative, semantic, goal-driven, adaptive, self-healing) and a de-facto standard like BPEL. Nowadays, the novel challenges are called lightweight or user-oriented composition, hybrid composition of services and user interfaces ala web mashups, software as a service, cloud computing, and so on. Besides these technical challenges, there are many additional research issues related to the adoption, management and governance of service-oriented systems.

The ICSOC/ServiceWave PhD Symposium 2009 aims to bring together excellent PhD students working on topics that are related to service-oriented computing and to discuss the ideas, solutions and trends of tomorrow. Specifically, the Symposium is an international forum for PhD students working in all the areas addressed by the ICSOC/ServiceWave 2009 conference (<http://www.icsoc.org/>). The Symposium operates in a workshop format and gives PhD students the opportunity to showcase their research and particularly encourages students that are still developing their research methodology or are somewhere in the middle of their research program to submit their contributions for discussion.

The goals of the ICSOC/ServiceWave PhD Symposium are:

- To bring together PhD students and established researchers in the field of service oriented computing;
- To enable PhD students to interact with other PhD students and to stimulate an exchange of ideas, suggestions, and experiences among participants;
- To give PhD students the opportunity to present and discuss their research in a constructive and critical atmosphere;
- To provide students with fruitful feedback and advice on their research approach and thesis.

The ICSOC/ServiceWave PhD Symposium 2009 in Stockholm is the 5th PhD Symposium of a series held in conjunction with the ICSOC conferences in Sydney, Australia (2008), Vienna, Austria (2007), Chicago, USA (2006), and Amsterdam, the Netherlands (2005).

This year's edition attracted 22 submissions, out of which 10 high-quality contributions have been accepted for presentation during the Symposium. Contributions cover almost all aspects of the software lifecycle, spanning from design time issues, such as model checking for service compositions, security, guided and automatic service composition, to testing, maintenance, and evolution of service-oriented applications. Accepted papers have been submitted from 7 different countries (Austria, China, Denmark, Germany, Italy, The Netherlands, and the United Kingdom), affirming the growing role of China in the context of service-oriented computing, next to the traditionally Europe-centered audience of the IC/SOC/ServiceWave conference.

**Acknowledgments.** First of all, we would like to thank all the students who submitted their manuscript for evaluation to the PhD Symposium; unfortunately, we were not able to accept them all. Then, we need to thank the organizers of the IC/SOC/ServiceWave 2009 conference for their assistance with the preparation of the Symposium and the proceedings, and all the PC members for their timely and professional reviews and their participation in the discussion with the students.

**Sponsorship.** Finally, also this year's PhD Symposium could count on the sponsorship by IBM T.J. Watson Research Center, New York, USA. Thanks a lot for the support!

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*Trento, Sydney  
November 26, 2009*

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