

3rd. International Symposium on Leveraging Applications of Formal Methods, Verification and Validation - ISoLA 2008

Call for Contributions to the special thematic session on Ubiquitous and Context Aware Systems

13-16 October 2008 - Porto Sani Resort, Kassandra (Greece)

<http://www.cs.uni-potsdam.de/isola2008>

ISoLA is a forum for developers, users, and researchers to discuss issues related to the adoption and use of rigorous tools for the specification analysis, verification, certification, construction, test, and maintenance of systems from the point of view of their different application domains. To bridge the gap between designers and developers of (formal methods based) rigorous tools, and users in engineering and in other disciplines, it fosters and exploits synergetic relationships among scientists, engineers, software developers, decision makers, and other critical thinkers. In particular, by providing a venue for the discussion of common problems, requirements, algorithms, methodologies, and practices, ISoLA aims at supporting researchers in their quest to improve the utility, reliability, flexibility and efficiency of tools for building systems and users in their search of adequate solutions to their problems. Applications and case studies with a conceptual message and experience papers with a clear link to tool construction are all encouraged.

Special thematic session on Ubiquitous and Context Aware Systems

The anywhere/any time paradigm is becoming the new challenge to the conception, design, and release of the next generation of information systems. New technologies, like Wi-fi networks and 3rd generation mobile phones, are offering the infrastructure to conceive information systems as ubiquitous, that is, systems that are accessible from anywhere, at any time, and with (almost) any electronic device. Ubiquity is not yet another buzzword pushed by emerging technologies, but rather a means of supporting new business models and encouraging new ways of working. Ubiquitous collaboration systems require new conceptualizations, models, methodologies, and support technologies to fully explore its potential.

Although context-awareness is a central paradigm for the implementation of ubiquitous systems, it still lacks adequate methods and tools that support the development of such systems. In particular, there is urgent need of formal methods for modeling context, describing the interplay between systems and environments, and for enabling automatic or semi-automatic verification or model checking tools. Hence, in this special track we focus on formal aspects and their application in this new and challenging research field of ubiquitous and context-aware systems.

Topics of interest include (but are not limited to):

- Formal context representations
- Ontologies
- Category Theory
- Formal Data Representation and Manipulation
- Specification modeling and analysis of context aware systems using
 - Process Algebras
 - Logic based models
 - Model checking
- Formalization and V&V applied to:
 - Information Management
 - Middleware for Ubiquitous Computing Applications
 - Web Information Retrieval
 - Knowledge Networks and Management
 - Web Agents and Agent-based Systems
 - Social Intelligence Design
 - Environment and systems modeling
 - Social Intelligence Design

Session Organizers:

Karin Breitman (PUC-Rio, Brazil)

Mike Hinchey (LERO - Ireland)

Edward Hermann Haeusler (PUC-Rio, Brazil)

Jean-Pierre Briot (UPMC - LIP6 - France)

IMPORTANT DATES:

Submission: May 21th

Acceptance: June 16th

Final version: July 15th

Early Registr.: September 15th