

# MODELS 2011

16–21 October • Wellington • New Zealand

## 5th International Workshop on Multi-Paradigm Modeling

### MPM'11

MPM'11 on the web: <http://avalon.aut.bme.hu/mpm11/>

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#### Scope of the Workshop

Computational modeling has become the norm industry to remain competitive and be successful. As such, Model-Based Design of embedded software has enterprise-wide implications and modeling is not limited to isolated uses by a single engineer or team. Instead, it has reached a proliferation much akin to large software design, with requirements for infrastructure support such as version control, configuration management, and automated processing.

The comprehensive use of models in design has created a set of challenges beyond that of supporting one isolated design task. In particular, the need to combine, couple, and integrate models at different levels of abstraction and in different formalisms is posing a set of specific problems that the field of Computer Automated Multi-Paradigm Modeling (CAMPaM) is aiming to address.

The essential element of multi-paradigm modeling is the use of explicit and heterogeneous models throughout. This leads to a framework with omnipresent models. Some represent the syntax of formalisms used for modeling, others are used to model the transformations that represent the operational semantics, as well as model-to-model transformations for inter-formalism transformation. Moreover, others are used to model the composition of models or even to model the composition of modeling formalisms. These models are then used to facilitate generative tasks in a language engineering space, such as evolving a domain specific modeling formalism as its requirements change, but also in a tool engineering space, such as automatic generation of integrated development environments. The use of ubiquitous explicit models during the whole system design process, from modeling formalism definition to system implementation, allows multiple types of analyses at various levels with great benefits in terms of performance, cost-effectiveness, safety, etc.

The purpose of this workshop is to bring together researchers and practitioners in the area of Multi-Paradigm Modeling in order to identify possible points of synergy, common problems and solutions, tool building aspects and visions for the future of the area.

#### Topics of interest (not limited)

- Applications (of current MPM techniques and tools and test/validate it);
- Multi-domain and multi-physics modeling;
- Modeling language engineering;
- Model transformations;
- Model composition;
- Multi-view modeling;
- Visualization of multi-paradigm models;
- Multi-abstraction;
- Usability of tools and models;
- (Meta-)model evolution;
- Model exchange, debugging, testing and consistency;
- Education of engineers.

Contributions should clearly address the foundations of multi paradigm modeling by demonstrating the use of models to achieve the stated objectives and discuss the benefits of explicit modeling.

#### Important dates

Paper submission deadline: **July 31, 2011**

Notification of acceptance: **September 5, 2011**

Camera-ready papers due: **September 12, 2011**

Workshop date: **October 16, 2011**

#### Submission procedure

Papers must be submitted electronically as PDF via EasyChair:

<http://www.easychair.org/conferences/?conf=mpm11>.

Papers should not exceed twelve (12) pages and follow the style available at the workshop web site. Papers will be peer reviewed. Revised versions of the accepted papers will be published in the workshop post-proceedings, which will take the form of an issue of the Electronic Communications of the EASST journal (indexed by DBLP). Extended versions of the best two papers will be published in the LNCS series of Springer.