Welcome to the 11th Workshop on Domain-Specific Modeling

Preface

Domain-Specific Modeling (DSM) is a solution that bridges both issues of productivity and scalability, as they relate to software systems. This workshop, now in its 11th incarnation, is an important venue for this topic because it actively involves experts in the field with those who want to learn more about the topic.

The approach of DSM is to express models using concepts directly from the problem domain, not concepts of a programming language. A domain-specific modeling language follows abstractions and conventions of the domain, while preserving the meaning (semantics) of those models that is consistent with the domain. This approach allows the system models to simultaneously represent the design, implementation, *and* documentation of the system.

While other venues provide a place to discuss completed work, it is still important to have a forum where freshly conceived ideas can be presented, and new collaborations can be forged through informal discussions and brainstorming. This is an important role of the DSM workshop series, and this year's program provides another opportunity not just to hear what other people have done, but to *work* on novel ideas, and flesh out relevant problems for future work.

Further goals of the workshop are to discuss the impact of existing research, to demonstrate new applications that require the advancement of DSM technology, and to introduce architects and users unfamiliar with DSM to the power of domain-specific approaches.

This workshop is known for keeping the *"work"* in *workshop*, and you will see that a significant amount of time is devoted to group work and discussion. We hope that you will benefit from listening to, and actively participating in, the discussions that are spawned by the presentations and working groups.

This year we received 16 submissions, of which 13 were accepted for publication. We have organized these papers to emphasize general areas of interest into which the papers loosely fit. Authors from both industry and academia have contributed research ideas that initiate and forward the technical underpinnings of DSM. Although many papers are crosscutting in their impact, the papers in the workshop are categorized into the areas of *Metamodeling, Language Development Support, DSM Experiences,* and *Cases.*

We hope that at the end of the workshop, you will find the presented papers valuable toward your understanding of the current state-of-the-art in Domain-Specific Modeling, and where to go next.

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List of Papers

Metamodeling

Towards a Comparative Analysis of Meta-Metamodels
Heiko Kern, Axel Hummel and Stefan Kuehne

Models for Forms
Daniel Abler, Charles Crichton, James Welch, Jim Davies and Steve Harris

Advancing Generic Metamodels
Henning Berg, Birger Møller-Pedersen and Stein Krogdahl

Language Development Support

Design Patterns for Metamodels
Hyun Cho and Jeff Gray

A DSML for reversible transformations
Mickael Kerboeuf and Jean-Philippe Babau

A Pattern-based Approach to DSL Development
Christian Schäfer, Thomas Kuhn and Mario Trapp

Bottom Up Creation of a DSL Using Templates and JSON
Claude Petitpierre

Towards Integration of Policies into DSMLs
Frank Hernandez and Peter J. Clarke

Experiences on DSM

SharpLudus revisited: from ad hoc and monolithic digital game DSLs to effectively customized DSM approaches
Andre Furtado, Andre Santos and Geber Ramalho

Guidance for Domain Specific Modeling in Small and Medium Enterprises
Henning Agt, Ralf-Detlef Kutsche and Timo Wegeler

Cases

autoVHDL: A Domain-Specific Modeling Language for the Auto-Generation of VHDL Core Wrappers
Erica Jones and Jonathan Sprinkle

A Domain Specific Language for Enterprise Grade Cloud-Mobile Hybrid Applications
Ajith Ranabahu, Michael Maximilien, Amit Sheth and Krishnaprasad Thirunarayan

LattesMiner: a Multilingual DSL for Information Extraction from Lattes Platform
Alexandre D. Alves, Horacio Yanasse and Nei Y. Soma