3rd International Workshop on Equation-Based Object-Oriented Modeling Languages and Tools

Oslo, Norway, October 3, 2010

EO OLT 2010

Workshop Program

8:50 *Introduction and Welcome to the Workshop*
Peter Fritzson

Session 1 : Real-Time Oriented Modeling Languages and Tools. Session chair: David Broman

09:00-09:25 *Execution of UML State Machines Using Modelica*
Wladimir Schamai, Uwe Pohlmann, Peter Fritzson, Christiaan J.J. Paredis, Philipp Helle, and Carsten Strobel
09:25-09:50 *Modal Models in Ptolemy*
Edward Lee and Stavros Tripakis
09:50-10:15 *Profiling of Modelica Real-Time Models*
Christian Schulze, Michaela Huhn, and Martin Schüler

10:15-10:30 Discussion

10:30-11:00 Coffee Break

Session 2 : Modeling Language Design
Session chair: Peter Fritzson

11:00-11:25 *Towards Improved Class Parameterization and Class Generation in Modelica*
Dirk Zimmer
11:25-11:50 *Notes on the Separate Compilation of Modelica*
Christoph Höger, Florian Lorenzen, and Peter Pepper
11:50-12:15 *Import of Distributed Parameter Models into Lumped Parameter Model Libraries for Linearly Deformable Solid Bodies*
Tobias Zaiczek and Olaf Enge-Rosenblatt

12:15-12:30 Discussion

12:30 - 14:00 Lunch

Session 3 : Simulation and Model Compilation
Session chair: Francois Cellier

14:00-14:25 *Synchronous Events in the OpenModelica Compiler with a Petri Net Library Application*
Willi Braun, Bernhard Bachmann, and Sabrina Proß
14:25-14:50 *Towards Efficient Distributed Simulation in Modelica using Transmission Line Modeling*
Martin Sjölund, Robert Braun, Peter Fritzson and Petter Krus
14:50-15:15 *Compilation of Modelica Array Computations into Single Assignment C for Efficient Execution on CUDA-enabled GPUs*
Kristian Stavåker, Daniel Rolls, Jing Guo, Peter Fritzson, and Sven-Bodo Scholz

15:15-15:30 Discussion

15:30-16:00 Coffee Break

Session 4 : Modeling and Simulation Tools
Session chair: Edward Lee

16:00-16:25 *An XML representation of DAE systems obtained from continuous-time Modelica models*
Roberto Parrotto, Johan Åkesson, and Francesco Casella
16:25-16:50 *Towards a Computer Algebra System with Automatic Differentiation for use with Object-Oriented Modelling*
Joel Anderson, Boris Houska, and Moritz Diehl

Short Presentations

16:50-17:05 *Discretising Time or States? A Comparative Study between DASSL and QSS*
Xenofon Floros, Francois E. Cellier, and Ernesto Kofman
17:05-17:20 *Model Verification and Debugging of EOO Models Aided by Model Reduction Techniques*
Anton Sodja and Borut Zupančič

17:20-17:30 Discussion

17:30-18.00 Summing Up - Future Directions