

Preliminary Program

OpenModelica Annual Workshop February 2, 2015

Supported by
Open Source Modelica Consortium (OSMC) and Linköping University (LIU)

8.00-8.40 Registration and coffee, outside A2, A-building.

Session Chair: Gerhard Schmitz (University of Hamburg-Harburg)

8.40-9.00 Peter Fritzson, Director of OSMC (Linköping University)

- Workshop Opening, Status and Directions of OpenModelica

9.00-9.40 Keynote. Rüdiger Franke, Specialist in Process Optimization Technology (ABB AG)

- Mathematical optimization of dynamic systems with OpenModelica

9.45-10.10 Francesco Casella (Politecnico di Milano)

- Modeling of Energy Systems with OpenModelica

10.10-10.35 Bernhard Bachmann, Willi Braun, Lennart Ochel, Vitalij Ruge (FH Bielefeld)

- Symbolical and Numerical Approaches for Solving Nonlinear Systems

10.35-11.00 Coffee

Session Chair: Francesco Casella (Politecnico di Milano)

11.00-11.25 Jan Šilar (Charles University, Prague)

- Partial Differential Equations in Modelica

11.25-11.50 Thibaut-Hugues Gallois, Jean Brac, Hassen Hadj-Amor and Thierry Soriano (IFP Energies Nouvelles)

- A Benchmark of Adjustable Size and Coupling to Test ODEs solvers

11.50-12.15 Willi Braun, Kaja Balzereit, Bernhard Bachmann (FH Bielefeld)

- Comparison of Methods for Solving Sparse Linear Systems

12.15-13.30 Lunch in Kårallen

Session Chair: Bernhard Bachmann (FH Bielefeld)

13.30-13.55 Adrian Pop (OSMC & Linköping University, OSMC Technical Coordinator)

- Current Status and Technical Overview of OpenModelica and its Development Environment

13.55-14.20 Kannan Moudgalya, Rakhi Rajalekshmi (Indian Institute of Technology Bombay)

- Analysis and Design Optimization of Electronic Circuits using Oscad and OpenModelica

14.20-14.45 Mengjia Zhang, Maxime Baudette, Luigi Vanfretti (KTH)

- Modeling Power System Components of the Norwegian Grid using Modelica

14.45-15.10 Coffee

Session Chair: Luigi Vanfretti (KTH)

15.10-15.30 Marcus Walther, Volker Waurich (TU Dresden)

- High-Performance-Computing meets OpenModelica: Achievements in the HPC-OM Project

15.30-15.50 Lennart Ochel, Bernhard Bachmann (FH Bielefeld)

- Efficient Handling of Simultaneously Under- and Overdetermined Initialization Problems

15.50-16.10 Marc Hartung (TU Dresden)

- Efficient Clustering and Scheduling for Task-Graph based Parallelization

16.10-16.25 Bernhard Thiele (Linköping University)

- State Machines in OpenModelica - Current Status and Further Development

16.30-17.00 Panel Discussion Chair: Peter Fritzson

- Future Directions of OpenModelica

17.00-18.00 Open Source Modelica Consortium Annual Statutory Meeting

19.00 Dinner