# **EOOLT 2016**

April 18, Milano – Italy www.eoolt.org

7th International Workshop on Equation-Based Object-Oriented Modeling Languages and Tools **Preliminary Program**  Aula Castigliano, Building n. 5 Politecnico di Milano Piazza Leonardo da Vinci 32

09:00	Francesco Casella and Dirk Zimmer: Welcome Address
09:10	Invited Keynote: Gianni Ferretti: Object-oriented modelling and FEM: a strategic partnership for virtual prototyping of mechatronic systems
09:50	Coffee Break

## **Session 1: Creating and Processing Models**

10:20	Victorino Sanz and Alfonso Urquia:  Modelica Extensions for Supporting Message Passing Communication and Dynamic Data Structures (WIP)
10:40	Hilding Elmqvist and Sven Erik Mattsson:  Exploiting Model Graph Analysis for Simplified Modeling and Improved Diagnostics
11:10	Christoph Höger:  Modeling With Monads
11:40	Coffee Break

### Session 2: Teaching and Understanding Equation-Based Languages

12:10	Viktor Kozma and David Broman:  MORAP: a Modular Robotic Arm Platform for Teaching and Experimenting with  Equation-based Modeling Languages (WIP)
12:30	Alexander Pollok and Andreas Klöckner: The use of Ockham's Razor in Object-Oriented Modeling
13:00	Lunch Break

### **Session 3: Model-Based Methods and Tools**

14:30	Andreas Seefried and Andreas Pfeiffer:
	Nonlinear Model Predictive Control in Modelica using FMI and Optimization library (WIP)
14:50	Daniel Bender:
	DESA - Optimization of variable structure Modelica models using custom annotations
15:20	Coffee Break

### **Session 4: Efficient Simulation of DAE Systems**

15:50	Volker Waurich and Martin Flehmig:  Task Graph Based System Partitioning for Multirate Integration (WIP)
16:10	Lennart Ochel, Patrick Täuber and Bernhard Bachmann:  Dynamic Tearing - Efficiency Enhancement of Tearing Methods by Consideration of  Solvability Criteria during Runtime
16:40	Federico Bergero, Akshay Ranade and Francesco Casella:  QSS and Multi-Rate Simulation of Object-Oriented Models
17:10	Short Coffee Break, Final Discussion and Wrap-up
18:00	End of Workshop