

**Tutorial at the**

**13<sup>th</sup>**  
**INTERNATIONAL**  
**MODELICA**  
**CONFERENCE**

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Ostbayerische Technische  
Hochschule Regensburg, Germany

**Title:**

Introduction to Modeling, Simulation, Debugging, and Julia Interoperability with Modelica and OpenModelica

**Presenter(s):**

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**Abstract:**

This tutorial gives an introduction to the Modelica language, the OpenModelica environment, and an overview of modeling and simulation in a number of application areas. Moreover, an introduction to debugging Modelica models will be given, and an introduction to Julia interoperability with OMJulia used for simple control system design. Some advanced features of OpenModelica will be presented, including clocked synchronous support, real-time embedded code generation, OMPython, OMJulia, etc.

A number of hands-on exercises will be done during the tutorial, both graphical modeling using the Modelica standard library and textual modeling. Bring your laptop for exercises.