

11th INTERNATIONAL **MODELICA** CONFERENCE

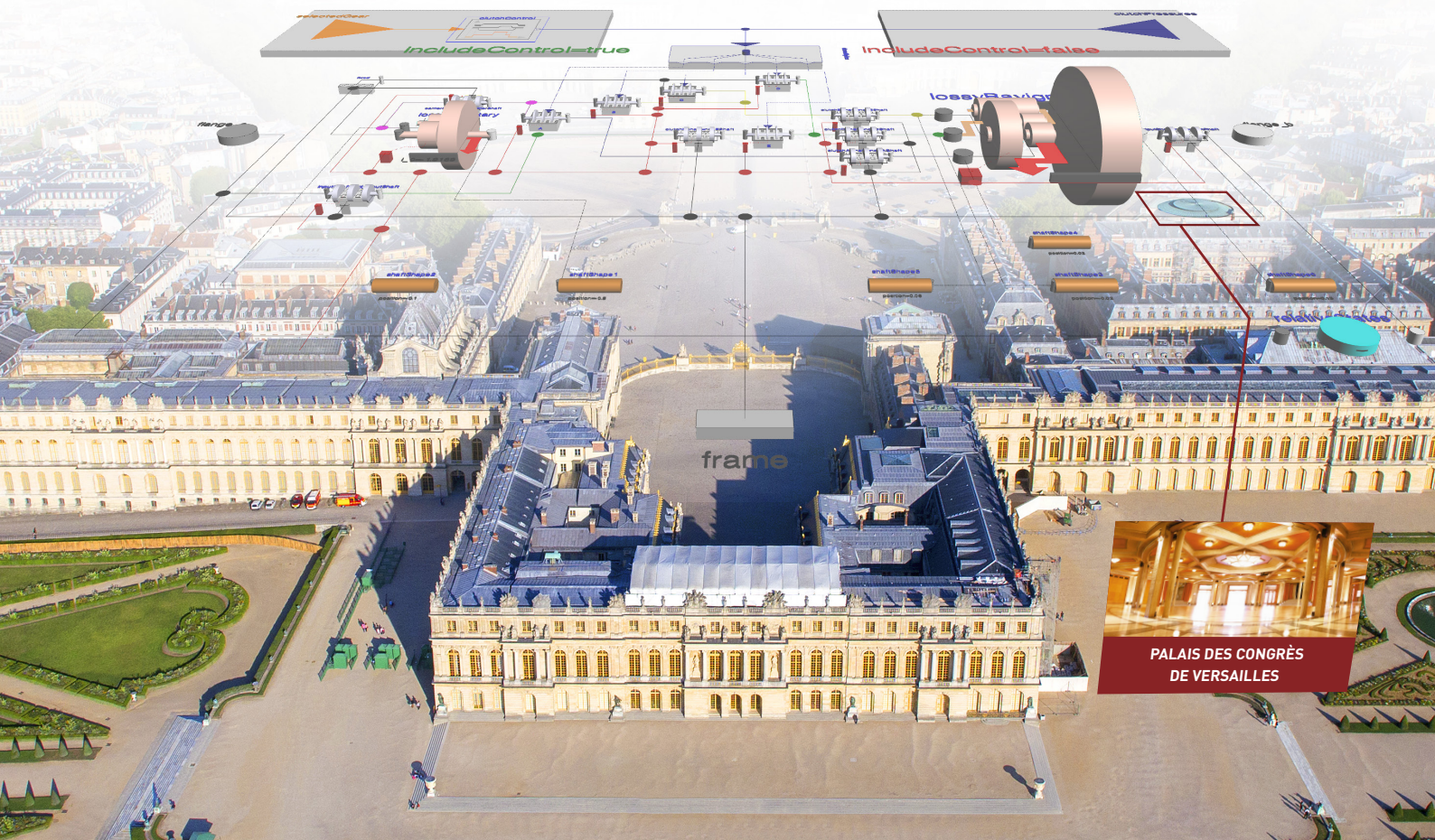
September 21–23, 2015

Palais des Congrès de Versailles, France

www.modelica.org

A conference about **Model Based Systems Engineering** with focus on the **Modelica** equation based **modeling language**, Modelica **model libraries**, Modelica based **simulation tools**, the **FMI** (Functional Mockup Interface) model exchange format as well as **industrial use cases**.

More information: www.modelica.org/events/modelica2015



The 11th International Modelica Conference will be held at the Palais des Congrès de Versailles, France on September 21–23, 2015. It is organized by Dassault Systèmes and Linköping University in cooperation with Modelica Association.

ABOUT THE CONFERENCE

The Modelica Conference is the main event for users, library developers, tool vendors and language designers to share their knowledge and learn about the latest scientific and industrial progress related to Modelica and to the Functional Mockup Interface. The program will cover modeling of complex physical and cyber-physical systems, as well as tools, for a wide range of research and industrial applications.

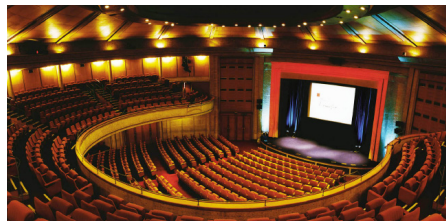
In addition to paper presentations and poster sessions, the conference features several Modelica tutorials for beginners and advanced users, as well as vendor presentations, and an exhibition. The previous Modelica conference in 2014 was visited by 400 participants from all over the world, and we expect even more participants at this conference.

CONFERENCE VENUE

The conference will take place at the Palais des Congrès de Versailles located 17 km west of Paris and about 300 m from the Palace of Versailles.

SCOPE OF THE CONFERENCE

Modelica is a freely available, equation-based, object-oriented language for convenient and efficient modeling of complex, multi-domain cyber-physical systems described by ordinary differential, difference and algebraic equations. The Modelica language and the companion Modelica Standard Library has been utilized in demanding industrial applica-



tions, including full vehicle dynamics, power systems, robotics, hardware-in-the-loop simulations and embedded control systems. The Functional Mockup Interface (FMI) is an open standard for the tool-independent exchange of models and for co-simulation. It is supported by many Modelica and non-Modelica tools and is the key to utilize Modelica models in non-Modelica environments. The Modelica conference will bring together people using Modelica and/or FMI for modeling, simulation, and control applications, Modelica language designers, Modelica and/or FMI tool vendors and Modelica library developers. It provides Modelica users the opportunity to stay

informed about the latest language, library, and tool developments, and to get in touch with people working on similar modeling problems. The conference will cover topics such as the following:

- Multi-engineering modeling and simulation with free and commercial Modelica libraries (mechanics, electrical, hydraulics, thermal, fluid, media, chemical, building, automotive, aircraft, ...)
- Automotive applications
- Thermodynamic and energy systems applications



- Mechatronics and robotics applications
- Other industrial applications, such as electric drives, power systems, aerospace, etc.
- Real-time and hardware-in-the-loop simulation
- Simulation and code generation for embedded control systems
- Simulation acceleration by use of many CPU cores or GPU cores
- Applications of Modelica for optimization and optimal control
- Modelica modeling, simulation and design tools
- Symbolic algorithms and numerical methods for model transformation and simulation
- Discrete modeling techniques - FEM, CFD, DEM (Discrete Element Method), ...
- New features of the Modelica language and FMI
- Modelica in other application areas (mathematical programming, databases etc.)
- Modelica for teaching and education
- FMI in Modelica and non-Modelica applications and tools

CALL FOR PAPERS

Papers can be submitted for full presentation or for poster presentation. In addition, new free Modelica libraries can be introduced to the public. Further information about the submission and/or application process and the submission templates is available at: www.Modelica.org/events/modelica2015.

IMPORTANT DATES

May 11, 2015

Paper submission, Tutorial application, library submission, vendor presentation application, and exhibitor application

May 27, 2015

Notification of acceptance

July 1, 2015

End of early registration

August 1, 2015

Submission of final papers and libraries

OUTLINE OF CONFERENCE PROGRAM

Monday, September 21

13:00–17:00 Tutorials
17:00–19:00 Vendor presentations
19:00 Reception

Tuesday, September 22

9:00–17:30 Conference and exhibition
19:00 Conference dinner

Wednesday, September 23

8:30–16:00 Conference and exhibition

CONFERENCE CHAIRS

Conference Chair:

Dr. Hilding Elmqvist Dassault Systèmes,
Lund, Sweden

Program Chair:

Prof. Peter Fritzson Linköping University,
Sweden

SPECIAL JOURNAL ISSUE

It is planned that the best scored 10 % of the reviewed papers are invited to be submitted in an improved and extended form for a special issue of an open access, ISI-referenced journal.

ORGANIZATION AND CONTACT

For more information visit: www.Modelica.org/events/modelica2015. For any questions, please send an email to: modelica2015@modelica.org