Call for Papers

ASIAN MODELICA CONFERENCE 2022 — NOV 24–25 HYBRID
ORGANIZED BY SOPHIA UNIVERSITY, MODELON, AND MODELICA ASSOCIATION

[UPDATED (August 19th)]
- ✧ Industrial paper by tool vendors and engineering companies no less than two pages is acceptable. Please add the word [Industrial paper] at the beginning of the title for the Industrial paper.
- ✧ The conference will accept Discussion paper with one or two pages for promoting exchanges between academic community and industry. Please add the word [Discussion paper] at the beginning of the title for the Discussion paper.
- ✧ Deadline of the paper submission and related events extended again. (Please see the item of Important Dates.)

[UPDATED (July 25th)]
- ✧ Conference is changed to a Hybrid conference.
- ✧ Addition of "Extended abstract" category
- ✧ Deadline of the paper submission and related events extended.

The **Asian Modelica Conference 2022** will be a **Hybrid** event, **November 24–25, 2022**. It is organized by the Modelica Association in cooperation with Sophia University and Modelon K.K.
On-site conference will be held at Sophia University, Yotsuya Campus in Tokyo, Japan.
https://www.sophia.ac.jp/eng/info/access/map/map_yotsuya.html
It will be possible to join the conference by on-site and / or remote way.

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 all of the system simulation standards developed and maintained by the Modelica Association, in particular Modelica, the Functional Mockup Interface (FMI), the System Structure and Parameterization (SSP) standard, the Distributed Co-simulation Protocol (DCP) standard and the Functional Mock-up Interface for embedded systems (eFMI) standard.
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. More details about the virtual conference platform will be available soon.
We are looking forward to seeing you online.

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 have been utilized in demanding industrial applications, including full vehicle dynamics, power systems, robotics, hardware-in-the-loop simulations and embedded control systems, etc. 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 utilizing Modelica models in non-Modelica environments.

The Modelica conference will bring together people using any of the [Modelica Association standards](#) 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 standards, 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 Modelica
- 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
- Applications of Modelica for optimization and optimal control
- Modelica modeling, simulation and design tools
- Symbolic algorithms and numerical methods for model transformation and simulation
- New features for future Modelica versions
- Modelica in other application areas (mathematical programming, databases etc.)
- Modelica for teaching and education
- New features of future FMI versions
- FMI in Modelica and non-Modelica applications and tools
- Tools and applications using the SSP standard
- Tool and applications using the DCP standard
- Digital Twins based on MA technologies

Call for Papers

You are encouraged to share your Modelica, FMI and other Modelica Association related work by submitting a paper in English. Further information about the submission and paper templates are available at:

https://2022.asian.conference.modelica.org/.

Papers and extended abstracts for presentations can be submitted via the EasyChair conference management system:
[EasyChair AsianModelicaConference 2022](#)

Please login to EasyChair before accessing to the above link.
There, you can also read your reviews and hand in the final paper after the reviewing

process has taken place. In order to submit a paper, you need to have an EasyChair account. Simply follow the provided instructions to create an account. The same account can be used for several conferences over several years. Once you have logged in, please choose option "enter as an author". You can download the submission templates through EasyChair or here (abstract, paper), or upload your contribution in the section: "New submissions". Simply follow the instructions.

The paper submission form includes the option to mark suitable topics for your paper. Please use this feature since it helps us to find suitable reviewers for your paper. Furthermore, there is the option to attach a .zip file to your paper. In this way, you can provide example models that correspond to your paper.

The conference proceedings will be published by the Modelica Association on its website and by Linköping University Electronic Press. Each paper will be individually referenced by a DOI.

[Addition of ' Extended abstract" category] (July 25th)

Additionally to the regular full paper, ' Extended abstract' category is now available. This is for authors who cannot write a full paper before the submission deadline, but will be able to finish the full paper by the final paper submission deadline. The paper should be more than 2 pages and include the abstruct, outline structure of the paper and summarized contents. Results can be added later. If the paper is intended to be submitted as the ' Extended abstract', please include the sentense to indicate that this version is a Extended abstract in the Aknowlegement section. Reviewers will consider this point in the peer review.

Important Dates ~~(Extended(July 25th))~~ **(Extended(August 19th))**

Full papers submission:	~~July 31~~ ~~August 21~~ September 11, 2022
Notification of acceptance:	~~September 15~~ ~~September 30~~ October 2, 2022
Final papers submission:	~~September 30~~ ~~October 15~~ October 23, 2022
Early bird registration:	~~September 30~~ ~~October 15~~ October 23, 2022

Organization and Contact

The conference is organized by the <u>Modelica Association</u> in cooperation with Sophia University and Modelon K.K. For more information and application, please contact the organizer.

Conference Board

Prof. Tielong Shen, Sophia University, Tokyo, Japan
Dr. Rui Gao, Modelon K.K., Tokyo, Japan
Dr. Yutaka Hirano, Woven Planet Holdings, Inc., Tokyo, Japan
Prof. Martin Otter, DLR, Germany
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Program chair: Dr. Yutaka Hirano, Woven Planet Holdings, Inc.
Conference co-chair: Dr. Rui Gao, Modelon K.K.