MATHMOD 2022 Vienna

**10th Vienna International Conference on
Mathematical Modelling
February 16-18, 2022**

SCOPE

The scope of *MATHMOD 2022* covers theoretic and applied aspects of various types of mathematical modelling (e.g., equations of various types, automata, Petri nets, bond graphs, qualitative and fuzzy models, machine learning) for systems of dynamic nature (deterministic, stochastic, continuous, discrete or hybrid with respect to time).

The *topics* to be discussed include e.g.

- modelling theory; first-principles, identification, optimization, order reduction and validation
- automation of modelling and software tools
- computer based modelling, modelling for/by simulation, co-simulation, modelling standards
- qualitative, modular, interdisciplinary modelling
- comparison of methods for modelling, alternative modelling methods (CAS, fuzzy, NN, QSS, etc.)
- machine learning and artificial intelligence for modelling
- model analysis and calibration, effects of modelling errors on overall performance of an engineering system
- applications in the field of engineering systems and in natural sciences
- applications in environmental systems, biotechnology, etc.
- applications in operation research, logistics and planning
- applications in medicine, physiology, health care and health systems
- education in/for/with modelling
- modelling aspects in scientific computing
- modelling for control and real-time applications
- machine learning, data analytics, big data

TYPES OF CONTRIBUTIONS

MATHMOD 2022 invites to submit contributions of following types:

- *MATHMOD Full Contribution*
  6 pages, full paper peer review; publication in
  IFAC-PapersOnLine and in MATHMOD Abstract Preprint Volume; oral presentation in thematic sessions or minisymposia
- *MATHMOD Discussion Contribution*
  2 pages extended abstract, abstract review; publication in MATHMOD Abstract Preprint Volume; short oral presentation with poster display or oral presentation in minisymposium

MATHMOD MINISYMPOSIA

Established scientists and engineers in mathematical modelling are encouraged to organise MATHMOD Minisymposia by inviting contributions to a special topic of interest (Full Contributions or Discussion Contributions). Details for organisation of minisymposia can be found at the MATHMOD website **www.mathmod.at**, deadline for minisymposia proposal is August 15, 2021.

IMPORTANT DATES

Submission of Minisymposium Proposal	Aug. 15, 2021
Submission Full Contribution	Sept. 15, 2021
Submission Discussion Contribution	Sept. 15, 2021

CONFERENCE PUBLICATIONS

The MATHMOD Conference Proceedings (Full Contributions) are published in the IFAC-PapersOnLine series hosted at the ScienceDirect web service. A MATHMOD Abstract Preprint Volume with abstracts of all contribution types will be available electronically at the conference. Furthermore, following the IFAC copyright regulations, suitably adapted versions of MATHMOD Contributions which contain sufficiently new material may be submitted to the Journal of Mathematical and Computer Modelling of Dynamical Systems (MCMDS), published by Taylor and Francis. More details will be published at the conference website.

SCIENTIFIC PROGRAMME

- Sessions with Invited Plenary Contributions
- Thematic Sessions with Full Contributions (oral presentations)
- Minisymposia with Full Contributions and Discussion Contributions (oral presentation)
- Short Presentation Sessions and Poster Display with Discussion Contributions and Student Contributions
- Tutorials / Exhibition of Methods, Tools and Software for Modelling and Simulation

SOCIAL PROGRAMME

The social programme includes a welcome reception, a cocktail reception at the evening lecture, a Heurigen evening and the traditional Café Simulation. All social events of the conference are included also for accompanying persons.

MATHMOD CONFERENCE FEES

	regular	late*		regular	late*
Standard Fee	€ 550.-	€ 650,-	Student Fee	€ 250.-	€ 350,-
Reduced Fee (members of (co)-sponsoring societies)	€ 500.-	€ 600,-	Accompanying Persons	€ 170.-	€ 220,-

* after Jan. 23, 2022.

Registration with regular (reduced) fee includes up to two submissions of any type. Registration with student fee includes submission of one submission of any type.

SPONSOR

Technische Universität Wien – TU WIEN
   Automation and Control Institute
   Institute of Analysis and Scientific Computing

CO-SPONSORS

- IFAC (Int. Federation of Automatic Control) TC 1.1 and 4.2
- ARGESIM (Working Group Simulation News)
- ASIM (German Simulation Society)
- EUROSIM (Fed. of European Simulation Soc.)
- GAMM (Int. Assoc. of Applied Math. and Mechanics)
- ÖMG – Austrian Mathematical Society
- OVE – Austrian Electrotechnical Association
- GMAR – Österreichische Gesellschaft für Mess-, Automatisierungs- und Robotertechnik

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