



MATHMOD 2021 Vienna

10th Vienna International Conference
on Mathematical Modelling
February 17 – 19, 2021



SCOPE

The scope of the *MATHMOD 2021* conference covers theoretic and applied aspects of various types of mathematical modelling (equations of various types, automata, Petri nets, bond graphs, qualitative and fuzzy models) for systems of dynamic nature (deterministic, stochastic, continuous, discrete or hybrid).

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

- modelling theory: first principles, identification, optimization, order reduction
- model validation, verification, design of experiments, search based testing
- automation of modelling and software tools
- computer modelling, modelling for/by simulation, co-simulation, modelling standards
- qualitative, modular, interdisciplinary modelling
- comparison of methods and alternative modelling methods (neural networks, machine learning, QSS, etc.)
- model analysis and calibration, effects of modelling errors on performance of engineering systems
- applications in the field of engineering systems and in natural sciences
- applications in environmental systems, biotechnology
- applications in operations 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
- deep learning, data analytics, big data

TYPES OF CONTRIBUTIONS

MATHMOD 2021 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

Submission of contributions is managed via IFAC's conference management system ifac.papercept.net.

MATHMOD MINISYMPOSIA

Experienced scientists in mathematical modelling are invited to organise MATHMOD Minisymposia. Organisers may invite contributions to a special topic of interest (Full Contributions or Discussion Contributions). Details on the organisation of minisymposia can be found at www.mathmod.at.

IMPORTANT DATES

Submission of Minisymposium Proposals	Aug. 15, 2020
Initial Submission Full Contribution	Sept. 15, 2020
Initial Submission Discussion Contribution	Oct. 1, 2020

CONFERENCE PUBLICATIONS

The MATHMOD Conference Proceedings are published at IFAC-PapersOnLine (Full Contributions). 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 MCMDS, the Journal of Mathematical and Computer Modelling of Dynamical Systems, 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 / Exhibitions for 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

	<i>regular</i>	<i>late*</i>		<i>regular</i>	<i>late*</i>
Standard Fee	€ 550.-	€ 650.-	Student Fee	€ 350.-	€ 400.-
Reduced Fee (members of (co)-sponsoring societies)	€ 500.-	€ 600.-	Accompanying Persons	€ 170.-	€ 220.-

* after Jan. 15, 2021.

Registration with a regular (reduced) fee includes up to two submissions of any type. Registration with a 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)
- VDI/VDE – GMA (VDE Society Measurement and Automatic Control)
- ÖMG – Austrian Mathematical Society
- OVE – Austrian Electrotechnical Association
- GMAR – Österreichische Gesellschaft für Mess-, Automatisierungs- und Robotertechnik

NATIONAL ORGANISATION TEAM

Andreas Körner (Chair)
Felix Breitenacker (Co-Chair)
Andreas Deutschmann (Co-Chair)
Stefanie Winkler (Conf. Ass.)

INTERNATIONAL PROGRAMME COMMITTEE (prel.)

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