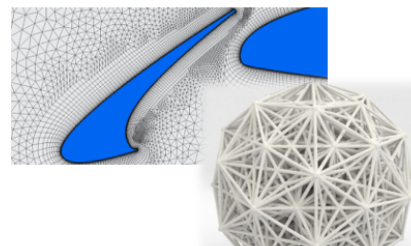


# The 22<sup>nd</sup> International Conference on Teaching of Mathematical Modelling and Applications (ICTMA22)

Linköping University (LiU), Sweden



**August 11<sup>th</sup> – 15<sup>th</sup>,  
2025**  
(Early career day, August 10<sup>th</sup>)  
**Linköping, Sweden**



[ICTMA22@mai.liu.se](mailto:ICTMA22@mai.liu.se)

**First announcement**



<https://liu.se/en/research/ictma22>

## Welcome to ICTMA22 in Linköping!

In 1989 the fourth International Conference on Teaching of Mathematical Modelling and Application (ICTMA4) was arranged in Roskilde in Denmark. For ICTMA22 in 2025 we extend an invitation to all researchers, teachers and mathematicians interested in the teaching and learning of mathematical modelling and applications to return to Scandinavia again – but this time to Sweden and the city of Linköping!





## About ICTMA

The International Community of Teachers of Mathematical Modelling and Applications (the 'Community') is a membership organisation that exists to promote Applications and Modelling in all areas of mathematics education - primary and secondary schools, colleges and universities. The ICTMA conferences began in the first half of the 1980s and have been held more or less every other year since then:

ICTMA-1	1983	University of Exeter, England
ICTMA-2	1985	University of Exeter, England
ICTMA-3	1987	University of Kassel, Germany
ICTMA-4	1989	University of Roskilde, Denmark
ICTMA-5	1991	Freudenthal Institute, Netherlands
ICTMA-6	1993	University of Delaware, USA
ICTMA-7	1995	University of Ulster, Northern Ireland
ICTMA-8	1997	University of Queensland, Australia
ICTMA-9	1999	University of Lisbon, Portugal
ICTMA-10	2001	Tsinghua University, Beijing, China
ICTMA-11	2003	Marquette University, Milwaukee, USA
ICTMA-12	2005	City University, London, UK
ICTMA-13	2007	Indiana University, USA Kathmandu University, Nepal (Satellite Meeting)
ICTMA-14	2009	University of Hamburg, Germany
ICTMA-15	2011	Australian Catholic University, Australia
ICTMA-16	2013	Universidade Regional De Blumenau, SC, Brazil
ICTMA-17	2015	University of Nottingham, U.K.
ICTMA-18	2017	University of Stellenbosch, Cape Town, South Africa
ICTMA-19	2019	University of Hong Kong, Hong Kong
ICTMA-20	2022	University of Würzburg, Germany
ICTMA-21	2023	Yokohama National University, Japan

Learn more about the history of ICTMA here: [ICTMA, the first century.](#)



## Conference Theme for ICTMA22 – *Challenges and opportunities for mathematical modelling education*

In general, we welcome contributions to ICTMA22 that include, but are not limited to, theoretical, empirical, philosophical, and methodological topics related to the promotion, teaching, learning, and evaluation of mathematical modelling and application, such as the following:

- Pre-primary, primary and secondary school education
- Teacher and university education
- Technology, simulations and modelling
- Design of task, activities and courses focusing on modelling and applications
- Modelling competences
- Modelling assessment
- Problem-posing in modelling
- Creativity in modelling
- Modelling in STEM education and in other interdisciplinary settings
- Modelling in the 21st century
- Modelling in and for everyday life, work, and planet earth
- Modelling teaching and learning in the age of artificial intelligence

In an educational setting, challenges for mathematical modelling education offer us as researchers and teachers of mathematical modelling education, opportunities to reflect, to use creativity and to find new pathways for the future, not only for our students, teachers and for conducting research, but also for society at large. Challenges are opportunities, and as Winston Churchill famously put it: “*Never let a good crisis go to waste.*”. That is, challenges present opportunities to reflect upon, to be used creatively, and to find new perspectives and pathways to advance, learn and develop from.

For ICTMA22 we especially encourage participants and speakers to shed their light on the theme *challenges and opportunities in mathematical modelling education*, such as

- Challenges and Opportunities for implementing mathematical modelling in schools and curricula
- Challenges and Opportunities for mathematical modelling competitions
- Challenges and Opportunities for mathematical modelling education for our environment and planet earth
- Challenges and Opportunities for assessment of mathematical modelling
- Challenges and Opportunities for ethics in mathematical modelling
- Challenges and Opportunities for mathematical modelling education and digital tools
- Challenges and Opportunities for mathematical modelling in primary education
- Challenges and Opportunities for theorizing the teaching and learning of mathematical modelling
- Challenges and Opportunities for teaching and learning of mathematical modelling in the age of artificial intelligence

## Conference organization

### Local Organization Committee (LOC)

- Jonas Bergman Ärlebäck (Chair)
- Peter Frejd (co-chair)
- Madeleine Engström
- Malin Aurell
- Karin Johansson
- Ulrika Johansson
- Sara Julsgård
- Sara Läthén



## Important dates at a glance – submission and registration schedule

15 <sup>th</sup> January	<b>One page</b> abstract submission opens Registration opens
15 <sup>th</sup> April	Abstract submission ends
1 <sup>st</sup> May	Acceptance/rejection of abstracts Review feedback to Authors
1 <sup>st</sup> June	Deadline for resubmission of abstracts
15 <sup>th</sup> June	Regular registration closes
10 <sup>th</sup> August	Early career day
11 <sup>th</sup> August	Conference Start

## Scientific Program

The ICMTA22 conference includes many types of scientific activities: keynote and plenary lectures, a panel discussion, long- and short oral communications in parallel sessions, and a poster session. In addition, it includes a new format called *Reflection fika*.

### Keynote, plenaries and panel discussion

The scientific program comprises one (1) keynote lecture and four (4) 45-minute long plenary lectures by invited speakers to be followed by a 15-minute discussion. The keynote will be given by **Professor Gabriele Kaiser** (University of Hamburg, Germany; Nord University, Bodø, Norway), and the plenaries by **Professor Kimmo Ericsson** (Mälardalen University College, Sweden), **Professor Daniel Orey** (Federal University of Ouro Preto, Brazil) and **Associate Professor Serife Sevinc** (Middle East Technical University, Turkey; TU Dresden, Germany). A fourth plenary speaker will be announced shortly.

A panel discussion moderated by **Professor Pauline Vos** (Western Norway University of Applied Sciences, Norway) with invited speakers (to be announced) of approximately 45 minutes, followed by a 30-minute discussion, will be provided.

### Long or Short Oral Communications

Long oral communications (30 minutes + 15 minutes discussion) or short oral communications (20 minutes + 10 minutes discussion) will be organised in six parallel sessions at ICTMA22. Oral communications can be empirical, theoretical, philosophical or methodological. They may be based on ongoing or completed research.

### Reflection fika

*Fika* ([https://en.wikipedia.org/wiki/Coffee\\_culture#Sweden](https://en.wikipedia.org/wiki/Coffee_culture#Sweden)) is important in Sweden and to Swedes. Therefore, the ICTMA22 programme will include so-called *Reflection Fika* to take advantage of this uniquely Swedish version of a coffee and cake break on two afternoons of the conference. A comfortable seating area will provide a relaxed and open setting in which everyone can reflect on the day in conversation. Under the informal guidance of a moderator, two senior researchers, **Werner Blum** and **Mogens Niss**, will share their impressions and reflections on the day's sessions and put these reflections into different perspectives. The floor will then be open to the audience, who can ask questions, expand on their reflections, dream, criticise or just watch. A reflection fika is meant to feed our minds and stomachs. A similar interactive academic format was implemented at PME Umeå (2018) and was very well received.

### Poster session

The conference program comprises a designated slot for poster presentations.

### Early career researcher day

The day before the official scientific program of ICTMA22 will start, a special activity for early career researchers will be offered. All early career researchers who are attending ICTMA22 are

welcome to participate in this day for a minor fee (covering the cost for lunch, coffee breaks and refreshments during the day). This day will be organized and coordinated by Pauline Vos in collaboration with LOC, with the aim to provide early career researchers with opportunities to develop their research competencies in various areas of modelling education, discuss their research, probe theoretical and methodological issues, establish new contacts, build networks among themselves and interact with a few experienced researchers in the field.

### Schematic overview of the conference schedule

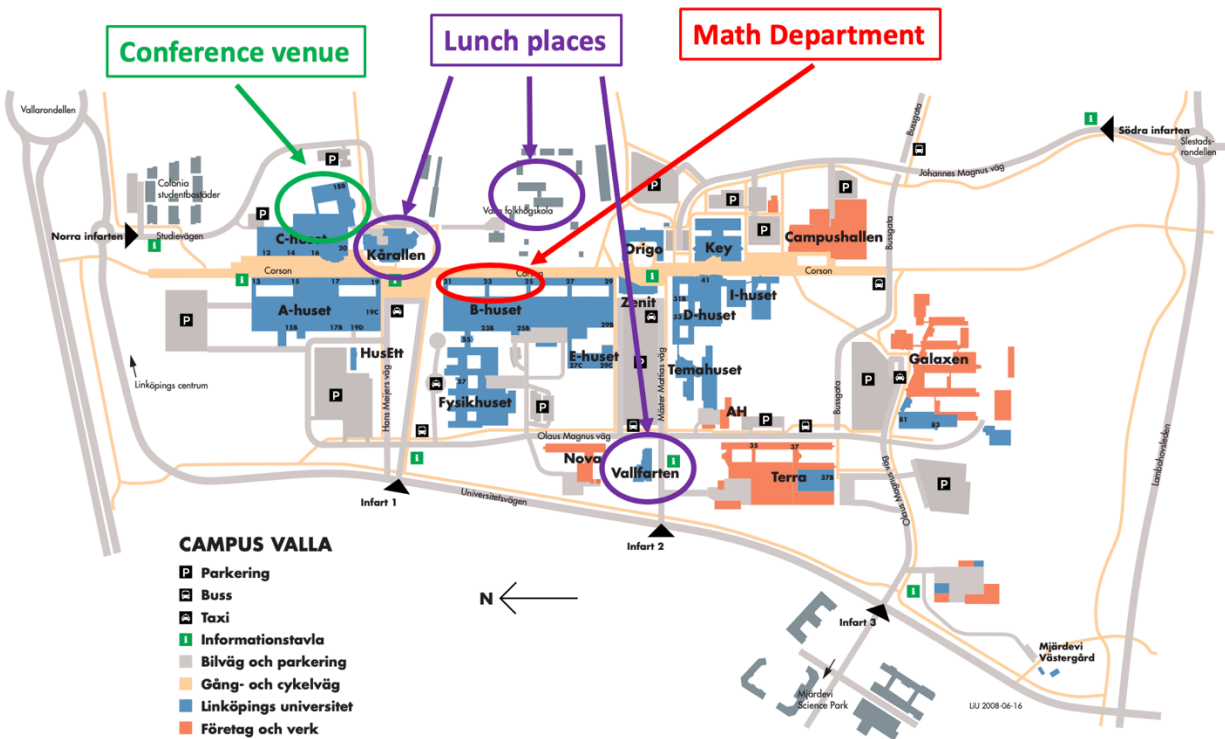
Time	Sunday Aug 10	Monday Aug 11	Tuesday Aug 12	Wednesday Aug 13	Thursday Aug 14	Friday Aug 15
08:30		Registration 08:00-09:00				
09:00		Opening ceremony	Plenary 1	Plenary 3	Plenary 4	Plenary Panel
09:30		Coffee break	Coffee break	Coffee break	Coffee break	
10:00						Coffee break
10:30		Keynote Speech	Parallel session 3	Parallel session 4	Parallel session 5	Henry Pollak award ceremony and closing ceremony
11:00						
11:30						
12:00		Lunch	Lunch	Lunch	Lunch	Lunch
12:30						
13:00						
13:30						
14:00	Early Career Researcher Day	Registration	ICTMA Executive Board meeting	Excursion	Parallel session 1	Plenary 2
14:30					Coffee break	Reflection of the day (EKA)
15:00					Parallel session 2	Reflection of the day (EKA)
15:30						Business meeting
16:00						
16:30						
17:00						
17:30						
18:00						
18:30	Welcome reception 18:00-20:00				Conference dinner 19:00-	
19:00						

## Conference Venue

The venue of the conference is the campus Valla of Linköping University in Linköping:

<https://liu.se/en/article/campus-valla>

The LiU Campus Valla allows all the academic activities of the conference to take place in one building and two adjacent corridors. The lunch restaurants are within 3-5 minutes walking distance.



C-building (Swedish: "C-huset") – the main conference venue



## Hus C plan 2



Schematic of the C-building



## Social Program and Excursions

The ICTMA22 social programme includes the conference dinner on 14 August and a half-day excursion on 13 August. Please note that the conference dinner is included in the conference fee – **but the excursions are not!**

### Conference Dinner

The current venue for the conference dinner is the Swedish Air Force Museum (<https://flygvapenmuseum.se/en/start/>), where conference delegates will dine and dance surrounded by aircraft.



### Excursions

When the registration opens on 15 January 2025, there will be three different excursions to choose from in different price categories:

- A guided tour and exploration of the neighbouring city of Norrköping (<https://visit.norrkoping.se/se-och-gora>).
- Visiting the historic city of Vadstena (<https://info.vadstena.se/besok-upplev/>).
- Going on a *Shrimp Cruise* (<https://gota-kanal.se/kv-llskryss-roxen>).

There are also many other options for shorter (evening) excursions in the city of Linköping and around the Linköping area (please note that none of these are included in the conference fee). Some possibilities are (listed in no particular order):

- River walk: <https://visitlinkoping.se/en/kinda-kanal/stångåstråket>
- Norrköping visualization center: <https://visualiseringscenter.se/en>
- Swedish Air Force Museum: <https://flygvapenmuseum.se/en/start/> (*This is presently the venue for the conference dinner*)
- Old Linköping Open Air Museum: <https://visitlinkoping.se/en/do/attractions/museums/gamla-linkoping-open-air-museum>
- Linköping Castle: <https://visitlinkoping.se/en/do/attractions/castles-and-manors/linköpings-slott>
- Linköping Cathedral: <https://visitlinkoping.se/en/do/attractions/churches-and-monasteries/linkoping-cathedral>
- Östergötlands Museum: <https://ostergotlandsmuseum.se> [only Swedish webpage]

## Registration

Registration will open on 15 January 2025 and all individuals wishing to attend ICMTA22 have to complete an online registration form which will be available on the conference website.

### Registration Fee

Delegates who register **before** 15 June:

Regular academic 425€.

PhD students 375€.

Delegates registering **after** 15 June:

Regular Academic 475€

PhD student 400€

Accompanying person

TBA (in second announcement)

### What's included with registration for delegates?

- Access to the conference venue and all sessions.
- Conference certificate.
- Welcome reception with finger food on 10 August.
- Fika (coffee breaks + snacks) twice daily on 11 and 12 August and once daily on 13 and 15 August.
- Lunch on 11-15 August (packed lunch on the excursion day on 13 August).
- Conference dinner on 14 August.
- An opportunity for presenters to have their paper(s) published in the conference proceedings (provided the paper(s) qualify and pass the review process that will take place after the conference).
- A copy of a book coming out of the conference published by Springer.

### Cancellations and Refund Policy

This will be specified in the second announcement, which will be published and distributed in mid-December.

## Travel information and accommodation

Travelling to and from the city of Linköping, as well as local transport in Linköping, is easy and accessible.

### Getting to Linköping: Long distance transportation

There are several ways to get to Linköping and please consider your CO2 emissions:

- Linköping City Airport (LPI, <https://www.linkopingcityairport.se/?lang=en>) has direct and frequent connections to Amsterdam Schiphol International Airport (AMS), which has many international flights. Alternatively, you can fly to Stockholm Arlanda International Airport (ARN) and then take the train or bus to Linköping (see below).
- By express train, Linköping is a stop on the line between Copenhagen Kastrup International Airport (CPH) and Stockholm Arlanda Airport (ARN). The train takes 3-3.5 hours from Kastrup and 2-2.5 hours from Arlanda. There is a direct night train from Hamburg which takes approximately 10 hours.
- There are several ways to get to Linköping by bus from Arlanda and Kastrup, as well as from a number of European cities. For example, there is a direct overnight Flixbus from Hamburg to Linköping, which takes about 12 hours.

Overviews of ways to travelling to Linköping can be found at the following webpages:

- <https://visitlinkoping.se/en/plan/travel-to-link%C3%B6ping> (provided by Linköping municipality);
- <https://liu.se/en/article/how-to-get-to-campus> (provided by Linköping university).

### Getting around in Linköping: Local transportation

The public transport system in Linköping is very well developed and it is easy to get from the centre of Linköping (the hotel area) to the Valla campus by bus; see <https://liu.se/en/article/how-to-get-to-campus> and <https://www.ostgotatrafiken.se/>.

### Accommodation

Hotels are located in the city of Linköping, 3-3.5 km from the campus. The easiest way to get to the campus is by public transport, by bicycle or on foot. The University has pre-arranged contracts with a number of hotels and rooms have been pre-booked for conference participants. Participants will need to book their own accommodation and the link to book with the pre-arranged hotels will be provided on the conference website when registration opens on 15 January 2025.