# MATHINFO CONFERENCE

## 8-12 September, 2025

| | Monday | Tuesday | Wednesday | Thursday |
|---|---|---|---|---|
| 8:00-9:30 | **Breakfast** | **Breakfast** | **Breakfast** | **Breakfast** |
| 9:30-10:30 | | Plenary: András Pataricza (Chair: Gyöngyvér Márton) | **Excursion (Sovata-Corund-Odorhei-Sighișoara)** | |
| 10:00-10:30 | | | | Plenary: Mihai Oltean (Chair: Maria Csernoch) |
| 10:30-10:45 | | **Session (C)** | | **Session (E)** |
| 10:45-11:20 | **Registration** | | | |
| 11:20-12:30 | Opening Ceremony+ Plenary 1: Krisztian Buza (Chair: David Iclănzan) Senate Hall | | | |
| 12:30-14:30 | **Lunch Break** | **Lunch Break** | | **Lunch Break** |
| 14:30-16:00 | **Session (A) (14:30-16:00)** | Plenary: Zoltán Gál (Chair: László Pál) | | Panel Discussion: **AI for Education: Friend, Foe, or Future?** (Hosted by Zoltán Kátai) |
| 16:00-16:30 | **Coffee Break** | **Coffee Break** | | **Coffee Break** |
| 16:30-18:00 | **Session (B)** | **Session (D)** | | **Session (F)** |
| 19:00- | **Dinner** | **Dinner** | **Gala Dinner-Haller Castel, Marosugra/Ogra** | **Dinner/Goulash cooking at open fire and Transylvanian Beer tasting** |
| | Watching **Israel-Italy** football game (114 room)/Board game night | Watching **Hungary-Portugal** football game (114 room)/ Board game night | | |

SPRINGER NATURE GROUP

# MATHINFO CONFERENCE

## 8-12 September, 2025

# Program

## Informatics

### September 8th, Monday

**8:00-9:30 Breakfast**

9:30-10:30
10:45-11:20 Registration
11:20-11:30 Opening Ceremony (Csaba Farkas & Emil Horobeț)
11:30-12:20 **Plenary Talk** (Chair: David Iclănzan) - Senate Hall (2nd floor)
**Krisztian Buza:** Twenty Years of Time Series Classification: From Nearest Neighbors to ROCKETs and Beyond
12:20-12:30 Discussion

**12:30-14:30 Lunch Break**

**Session (A)**

### 14:30-16:00 Session (A) (Senate Hall)

**Chair: Margit Antal**

14:30-15:00 **Cristina Andreea Tomoiu:** Automatic AI Detection for Romanian Language
15:00-15:30 **Monica Emilia Văruicu:** Automatic Detection of Core Sections in Scientific Papers
15:30-16:00 **David Iclănzan:** Forensics and Feedback at Scale for Digital Assignments

**16:00-16:30 Coffee Break**

**Session (B)**

### 16:30-18:00 Session (B) (Senate Hall)

**Chair: Krisztián Búza**

16:30-17:00 **Margit Antal:** Benchmarking Open-Source LLMs in RAG Systems with Diploma Abstracts
17:00-17:30 **Lóránt Hadnagy:** Algorithmic Expression of Tensor Operations in Iversonian Languages
17:30-18:00 **Rolland-Zsombor Csiszér:** Embedding Models for Hungarian Chatbots: Retrieval Performance and Efficiency Analysis

# MATHINFO CONFERENCE

**8-12 September, 2025**

# Program

## Informatics

### September 9th, Tuesday

**8:00-9:30 Breakfast**

9:30-10:30 **Plenary Talk**

**András Pataricza:** Formal methods: the fundament for critical IT applications (Chair: Gyöngyvér Márton) - Room 114

**Session (C)**

### 10:30-12:30 Session (C) (Room 114)

**Chair: András Pataricza**

10:30-11:00 **Gyöngyvér Márton**: Observations on the impact of AI on cryptography
11:00-11:30 **Dániel Derzsi:** Automated Dependency Resolution in Container Orchestration
11:30-12:00 **Szabolcs Csaholczi:** Optimized U-Net Architecture with Residual and Attention Blocks for Multi-Class Tumor Segmentation
12:00-12:30 **Mirtill-Boglárka Naghi:** Self-Tuning Clustering: Toward Automated Parameter Optimization in Fuzzy C-Means Clustering Models

**12:30-15:00 Lunch Break**

15:00-16:00 **Plenary Talk**

**Zoltán Gál:** Technology and scientific aspects of the satellite-based and mobile cellular communication services integration (Chair: László Pál) - Senate Hall

**16:00-16:30 Coffee Break**

**Session (D)**

### 16:30-18:00 Session (D) (Room 114)

**Chair: Mirtill - Boglárka Naghi**

16:30-17:00 **László Pál:** Index Tracking Portfolio Construction with Sector Weight and Turnover Constraints
17:00-17:30 **Levente Filep:** Performance Evolution of Swarm Intelligence Algorithms
17:30-18:00 **Bence Kovács:** Investigation and Application of Traveling Salesman Algorithms in Urban Route Planning

# MATHINFO CONFERENCE

**8-12 September, 2025**

# Program

## Informatics

### September 11th, Thursday

**8:00-9:30 Breakfast**

10:00-10:30 **Plenary Talk**

**Mihai Oltean:** F-Roof: a single-layer multifunction roof (Chair: Maria Csernoch) - Senate Hall

**Session (E)**

### 10:30-12:30 Session (E) (Senate Hall)

**Chair: Mihai Oltean**

10:30-11:00 **Ádám Gulácsi:** Games and algorithms: a co-operative board game for teaching elementary algorithms
11:00-11:30 **Erika Osztián:** From Dance to Code: A 20-Year Journey
11:30-12:00 **Maria Csernoch:** Problem-Solving Strategies and Wastes in Digital Text Management
12:00-12:30 **Zoltán Kátai:** The Sapientia ECN AI Baseline Index: Comparing LLMs to Student Performance in Competitive Programming

**12:30-14:30 Lunch Break**

14:30-16:00 **Panel Discussion**

**AI for Education: Friend, Foe, or Future?** (Hosted by Zoltán Kátai) - Senate Hall

**16:00-16:30 Coffee Break**

**Session (F)**

### 16:30-17:30 Session (F) (Senate Hall)

**Chair: Erika Osztián**

16:30-17:00 **Dániel Nágó:** Gamification of Examination: A New Method and Tool in the Spirit of "Who Wants to Be a Millionaire?"
17:00-17:30 **Katalin Tünde Jánosi-Rancz:** School Dropout of Hungarian Students in Romania