

The 32<sup>nd</sup> Industrial Conference on  
Applied and Industrial Mathematics - CAIM 2025

September 18–21, 2025, Bucharest

# Conference Programme

## General Schedule

Thursday, September 18, 2025

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14.30-19.30	<b>Registration</b> Library Building, POLITEHNICA Bucharest, Splaiul Independentei 313, Bucharest
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Friday, September 19, 2025

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08.00-09.00	<b>Registration</b>
09.00-10.00	<b>Opening Ceremony</b> <i>In Memoriam</i> Adelina Georgescu - Founder of ROMAI <b>ROOM 2.1, Library Building, POLITEHNICA Bucharest</b>
10.00-10.30	<i>Coffee Break</i>
10.30-11.50	<b>Plenary Session</b>
11.50-14.00	<i>Lunch</i>
14.00-15.20	<b>Communications</b>
15.20-15.40	<i>Coffee Break</i>
15.40-17.00	<b>Communications</b>
17.00-17.20	<i>Coffee Break</i>
17.20-19.00	<b>Communications</b>
20.00-22.00	<b>Official Dinner</b>

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Saturday, September 20, 2025

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09.30-10.50	<b>Plenary Session</b>
10.50-11.20	<i>Coffee Break</i>
11.20-12.20	<b>Communications</b>
12.20-14.30	<i>Lunch</i>
14.30-15.30	<b>Communications</b>
15.30-15.50	<i>Coffee Break</i>
15.50-16.00	ROOM 2.1 <i>Closing Ceremony</i>
16.00-	<b>ROMAI General Assembly</b>

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Sunday, September 21, 2025

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<b>Excursion: Curtea de Arges</b>
<b>Departure of participants</b>

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## Education

### Friday, September 19

#### Room 4.2

**Chairperson: Liubomir Chiriac**

14.00- *A comparison between entrance exams to technical faculties in Romania and China*

14.10 **Elena Cristina Canepa, Roxana Elena Tanase**

14.10- *The role of teacher modelling competence in student learning outcomes*

14.20 **Dumitru Cozma, Larisa Sali**

14.20- *Valorization on the extension of interactive education in didactic design by implementing interactive worksheets*

14.30 **Natalia Josu**

14.30- *A problem with 4 non-coplanar points solved in maple*

14.40 **Raluca Mihaela Georgescu, Cristina Vasilica Tudose**

14.40- *Aerial algebra: concepts, methods and real-world applications*

14.50 **Arina Brigalda, Dorin Afanas**

14.50- *Teaching Homogenization Theory to Students: A Course and Laboratory Approach*

15.00 **Stefan Alina**

15.00- *Theoretical foundations of applied mathematics in drone communications*

15.10 **Corina Adam, Dorin Afanas, Arina Brigalda**

15.10- *Digital textbooks for mathematics: between pedagogical potential and implementation challenges*

15.20 **Andrei Braicov**

#### Workshop

15.40- *Interdisciplinary Perspectives in Digital Pedagogy. Integration of Mobile Educational Applications in Modern Teaching of Technical Topics in Universities*

17.00 **Cojocariu Venera-Mihaela, Grigoras Cosmin, Mares Gabriel, Măță Liliana, Nechita Elena, Popescu Carmen-Violeta, Savin Petronela**

#### Room 4.2

**Chairperson: Andrei Braicov**

17.20- *Theoretical foundations of plane geometry with applications in the metric analysis of convex patrilaterals*

17.30 **Dorin Afanas, Lilia Bunduchi**

17.30- *Alternative Methods for Angle Trisection*

17.40 **Ileana Ioana, Diaconu Maria-Crina**

17.40- *Effective prompt design strategies: fundamental principles for educators beginning in artificial intelligence*

17.50 **Teodora Vascan**

17.50- *Analysis of the disinformation phenomenon in the Republic of Moldova from a social and technological perspective*

18.00 **Angela Globa, Ala Gasnas**

18.00- *Mathematics - a key foundation for developing programming competenc*

18.10 **Angela Globa, Ala Gasnas**

18.10- *Interactive activities for digital mathematics textbooks, grade 5. Case study: Romania - Republic of Moldova*

18.20 **Balmus Nicolae, Ungureanu (Zahiu) Mariana-Denisa**

**18.20-** *Embedding the theme of chess in teaching math to gifted middle and high school students*  
**18.30** **Borsenco Ivan**

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**18.30-** *Application of some techniques for solving non-geometric problems through geometric methods*  
**18.40** **Calmutchi Laurentiu**

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**18.40-** *Inter-transdisciplinary learning - today's imperative*  
**18.50** **Chiriac Eugenia, Grigorcea Sofia, Tiganas Odetta**

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**18.50-** *Remodelling the mathematics education process from the perspective of AI performance*  
**19.00** **Chiriac Liubomir, Lupasco Natalia, Fetanu Elisa-Ioana**

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**Education**  
**Saturday, September 20**

<b>Room 4.2</b>	
<b>Chairperson: Maria Pavel</b>	
11.20- 11.30	<i>Methodological aspects regarding the development of mathematical modeling competence from the perspective of ensuring continuity between pre-university and university education</i> <b>Sali Larisa, Ionel Mirela</b>
11.30- 11.40	<i>Strategies for didactic transposition of the geometric contents with an impact on the performance of students in lower secondary education</i> <b>Sali Larisa, Teleuca Marcel</b>
11.40- 11.50	<i>Teaching mathematics with digital textbooks: global perspective and implementation challenges</i> <b>Chiriac Tatiana</b>
11.50- 12.00	<i>Some aspects of the monotony of functions in solving equations</i> <b>Corlat Andrei, Jardan Ion</b>
12.00- 12.10	<i>About international standards in mathematics education: challenges and solutions in adapting them to local specificity</i> <b>Hajdeu Mihaela, Bordan Valeriu</b>
12.10- 12.20	<i>Free fall of the body in the presence of resistance force</i> <b>Postolachi Igor, Gutu Ionela, Postolachi Valentina</b>
<b>Room 4.2</b>	
<b>Chairperson: Larisa Sali</b>	
14.30- 14.40	<i>Comparative Analysis of the Results of the Study of Programming Languages by Future Computer Scientists</i> <b>Maria Pavel, Dorin Pavel</b>
14.40- 14.50	<i>Digital Pedagogy: Concepts and Theories</i> <b>Maria Pavel, Dorin Pavel</b>
14.50- 15.00	<i>The role of computational thinking and statistical thinking in modernizing the computer science curriculum</i> <b>Veverita Tatiana</b>
15.00- 15.10	<i>Using the properties of convex/concave functions for proving inequalities</i> <b>Viespeschi Carina Maria, Ilinca Sebastian Petrisor</b>
15.10- 15.20	<i>Motion of a body thrown at an angle to the horizon in the presence of resistance forces</i> <b>Postolachi Igor, Reoneac Vitalie, Postolachi Valentina</b>
15.20- 15.30	<i>Enhancing the applied orientation of higher mathematics education in technical university</i> <b>Dmytro Anpilohov</b>
15.30- 15.50	<i>Principles of bilingual instruction in mathematics for engineering students</i> <b>Nataliia Snizhko</b>