

Organizing Committee

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Lecturer Dr. Anca Baciuc
Lecturer Dr. Irina Ioniță
Lecturer Dr. Daniela Șchiopu

Scientific Committee

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Associate Professor Dr. Gabriela Moise
Associate Professor Dr. Simona Nicoară
Associate Professor Dr. Monica Vlădoiu
Lecturer Dr. Zoltan Borsos
Lecturer Dr. Lidia Iancu
Lecturer Dr. Liviu Ioniță
Lecturer Dr. Alina Iosif
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Trends in Science and Technology



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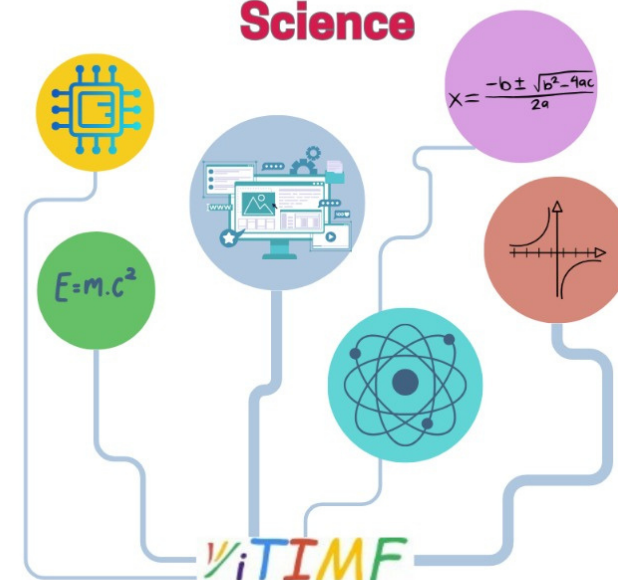
39 București Blvd., Ploiești, Prahova



Department of
Computer Science,
Information Technology,
Mathematics, and Physics



Trends in Science and Technology The Confluence of Mathematics, Physics, and Computer Science



June 26, 2025



MATHEMATICS Section

Room E V 12

12⁰⁰–12²⁰:

"Basic Inequalities for Hypersurfaces in Spacetimes", Alina Daniela Vilcu Petroleum-Gas University of Ploiești

12²⁵–12⁴⁵:

"On integrability of a generalized class of functions", Alina Iosif, Georgeta Maniu Petroleum-Gas University of Ploiești

12⁵⁰–13¹⁰:

"Statistical manifolds and statistical submersions", Crina-Daniela Săvescu-Neacșu, National University of Science and Technology "Politehnica" Bucharest

13¹⁰–13³⁰:

"Cohen-Macaulay types of certain edge subrings of bipartite graphs and (generalized) Fuss-Catalan numbers", Alin Ștefan, Mihai Nicolae, Petroleum-Gas University of Ploiești

13³⁰–14³⁰: Lunch break – the University cafeteria

14³⁵–14⁵⁵:

"A study on Istrățescu type mappings", PhD student Doru-Mihai Dumitrescu, National University of Science and Technology "Politehnica" Bucharest

15⁰⁰–15²⁰:

"On some generalized classes of nonexpansive operators", PhD Student Claudia Mihaela Micu, National University of Science and Technology "Politehnica" Bucharest

15²⁵–15⁴⁵:

"Qualitative analysis of a three steps numerical procedure", PhD Student Alexandru Gogoasă, National University of Science and Technology "Politehnica" Bucharest

Conference Program

10:00 – 10:30

Participants' registration, Room AP9

10:30 – 10:45 Official opening

10:45–11:05 Invited speaker:
Ariana Pitea, National University of Science and Technology "Politehnica" Bucharest –
"On some vector optimization problems"

11:10–11:30 Invited speaker:
Gabriel-Eduard Vilcu, "Gheorghe Mihoc – Caius Iacob" Institute of Mathematical Statistics and Applied Mathematics of the Romanian Academy, Bucharest –
"On the stability of Riemannian spaces"

11:30 – 12:00 Coffee break

COMPUTER SCIENCE and PHYSICS Section

Room E V 9

12⁰⁰–12¹⁰:

"Modeling, using Finite Elements Method (FEM), the cement-drilling pipe bond", Ionuț Lambrescu, Petroleum-Gas University of Ploiești

12¹⁰–12²⁰:

"Implementing New Learning Technologies in the Study of Exact Sciences", Anca Baci, Zoltan Borsos, Irina Ioniță, Liviu Ioniță, Georgeta Nan, Petroleum-Gas University of Ploiești

12²⁰–12³⁰:

"A Hyper-Ellipsoids-based Approach to Mitigate the Instability in Local Interpretable Modelagnostic Explanations", Lidia Angelica Iancu, Gabriela Moise, Elia Georgiana Dragomir, Petroleum-Gas University of Ploiești

12³⁰–12⁴⁰:

"A Theoretical Model for EEG-based Multi-label Emotion Recognition. Why is it difficult to implement it?" Gabriela Moise, Elia Georgiana Dragomir, Georgeta Maniu, Lidia Angelica Iancu, Petroleum-Gas University of Ploiești

12⁴⁰–12⁵⁰:

"Multi-Scale Temporal Analysis of Urban Microclimatic Data, from Daily Patterns to Annual Trends", Zoltan Borsos, Anca Baci, Georgeta Nan, Mihaela Necula, Petroleum-Gas University of Ploiești

12⁵⁰–13⁰⁰:

"AI Agents in Education: Between Personalization, Efficiency, and Cognitive Risks", Daniela Șchiopu, Petroleum-Gas University of Ploiești

13⁰⁰–13¹⁰:

"Does the current trend of artificial intelligence indicate progress for humanity and human society?", Simona Nicoară, Petroleum-Gas University of Ploiești

13¹⁰–13²⁰:

"AI tools for GDPR compliance", Maria Isabela Hasnaș, Gabriela Moise, Dana Volosevici, Petroleum-Gas University of Ploiești

13²⁰–13³⁰:

"The dimension of motivation in the STEM field", Simona Nicoară, Petroleum-Gas University of Ploiești

13³⁰–14³⁰: Lunch break – the University cafeteria

14³⁰–14⁴⁰:

"Advances in Applied Data Science: Trends in Machine Learning and Ensemble Techniques", Daniela Tudorică, Elia Georgiana Dragomir, Petroleum-Gas University of Ploiești

14⁴⁰–14⁵⁰:

"A Comprehensive Survey on Self-Supervised Learning Techniques", Elia Georgiana Dragomir, Daniela Tudorică, Petroleum-Gas University of Ploiești

14⁵⁰–15⁰⁰:

"Bridging the Semantic Gap: An AI-Driven Approach to Natural Language Interfaces for Relational Databases", Alexandru Dumitru, Petroleum-Gas University of Ploiești

15⁰⁰–15¹⁰:

"The good and bad sides of LLMs", Hasnaș Maria Isabela, Petroleum-Gas University of Ploiești