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# MASTER PROGRAM

for

**SEVENTEENTH INTERNATIONAL CONFERENCE  
APPLICATION OF MATHEMATICS IN TECHNICAL AND NATURAL  
SCIENCES  
JUNE 24-29, 2025**

**All times in the program are GMT+3 (East-European time). Please  
synchronize your local time with respect to GMT and join the announced  
Zoom sessions on time.**

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**SATURDAY, JUNE 28, 2025**

Join Zoom Meeting **08:00-18:00**

<https://us02web.zoom.us/j/81434055350?pwd=zzDb2gwsTCozVMQtag9QQntlF6kkMj.1>

Meeting ID: 814 3405 5350

Passcode: 268886

Hosted by Michail Todorov

## **Flamingo Grand Hall**

08:30-09:30      PLENARY TALK

Speaker: Runzhang Xu

Title: *Global Quantitative Stability of Wave Equations with  
Strong and Weak Dampings*

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Coffee Break

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- 10:00-11:30      Session E-LEARNING
- 10:00-10:30      Speaker: Gleb Haynatzki  
Title: *Probability Metrics for Kolmogorov-Arnold Net (KAN)*
- 10:30-11:00      Speaker: Dimitar Velev  
Title: *The Synergy of Mathematics, Computer Science and Generative Artificial Intelligence*
- 11:00-12:00      Speaker: Marian Milev/ Dilyana Nikolova  
Title: *A Model for Measuring the Economic Effects of Implementing Artificial Intelligence Technologies in Business Practices*

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Lunch Break

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- 14:00-14:45      KEYNOTE TALK
- Speaker: Andrejs Koliskin  
Title: *Amplitude Evolution Equation for a Convective Flow Between Two Vertical Parallel Planes*
- 15:00-15:30      Session MATHEMATICAL PHYSICS
- 15:00-15:30      Speaker: Enrique Reyes  
Title: *Equations in Infinitely Many Derivatives and the Zeta Function*
- Session NUMERICAL METHODS AND SCIENTIFIC COMPUTING
- 15:30-16:00      Speaker: Volodymyr Chumakov/Oxana Kharchenko  
Title: *Equations in Infinitely Many Derivatives and the Zeta Function*

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Break

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- 16:30-17:00 Speaker: Tzvetan Ostromsky  
Title: *Advanced Stochastic Techniques for Sensitivity Analysis in Large-Scale Air Quality Modeling*
- 17:00-17:30 Speaker: Tzvetan Ostromsky  
Title: *Application of LiDAR and Photogrammetric Technologies for Imaging, Mapping and 3D Modeling of Underground Karst Objects -- Results from Experiments in the Cave Svirchovitsa near Karlukovo Village, NW Bulgaria*
- 17:30-18:00 Speaker: Dzhihan Menseidov  
Title: *Stochastic Monte Carlo–FEM Prediction of Electrical Conductivity in Carbon-Nanoparticle/Polymer Composites for Green Technologies*
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## **Corella Hall**

### PARALLEL ZOOM SESSION

Join Morning 2 Zoom Meeting **10:00-12:00**  
<https://essex-university.zoom.us/j/92040184669>

Hosted by Georgi Grahovski

- 10:00-10:30 Special Session INTERDISCIPLINARY FRONTIER
- 10:00-10:30 Speaker: Zhengrui Yang  
Title: *Generative Adversarial Network with Vision Transformer for Pollen Grain Microscope Images Classification*
- 10:30-11:00 Speaker: Hongyuan Wang  
Title: *A Privacy-preserving Scheme for External Security in Blockchain-based Federated Learning*

11:00-11:30

Speaker: Haoxuan Zhang

Title: *Structure-Aware and Consistency-Preserved Graph Contrastive Learning without Augmentation*

11:30-12:00

Speaker: Yaopeng Niu

Title: *Dynamic Characterization of Aircraft Propellers under Erosion Cracks*