

XIV-th International Conference
Mathematics of Informational Modeling
Program

24 October 2024

- 9.00 - 9:30 **Kalinka Kaloyanova^{1,2}, Ina Naydenova², Zlatinka Kovacheva^{2,3}**
¹ Sofia University "St. Kliment Ohridski"
²Institute of Mathematics and Informatics, Bulgarian Academy of Sciences
³ University of Mining and Geology "St. Ivan Rilski", Sofia, Bulgaria
Towards Multidimensional Modeling of Clinical Data
- 9:30-10:00: **Rajani Rani Gupta**
Gulf College, Muscat, Oman
Investigating the wave motion in a micropolar generalized thermoelastic transversely isotropic half-space under temperature-dependent properties
- 10:00-10:30 **Ivan Ganchev^{1,2}**
¹ Plovdiv University
²Institute of Mathematics and Informatics, Bulgarian Academy of Sciences
Emulsion project: main outcomes
- 10:30:11:00 **Stoyan Poryazov**
Institute of Mathematics and Informatics, Bulgarian Academy of Sciences
A Reference Model of cyber-Informational-physical-social-environmental systems (CIPSES)
- 11:00:11:30 **Velin Andonov¹, Stoyan Poryazov¹, Emiliya Saranova¹, Ivan Ganchev^{1,2}**
¹Institute of Mathematics and Informatics, Bulgarian Academy of Sciences
² Plovdiv University
Uncertainty representation in service networks
- 11:30-13:00 **Lunch break**

- 13:00-13:30 **Velin Andonov, Stoyan Poryazov, Emiliya Saranova,**
Institute of Mathematics and Informatics, Bulgarian Academy of Sciences
Generalized nets models of QoS estimation of an overall telecommunication system
- 13:30-14:00 **Margarita Spiridonova**
Institute of Mathematics and Informatics, Bulgarian Academy of Sciences
Operational Methods in the Environment of a Computer Algebra System
- 14:00-14:30 **Boyan Kolev**
Institute of Mathematics and Informatics, Bulgarian Academy of Sciences
Intuitionistic Fuzzy Estimations for Similarity Queries Using Sketches of Numeric Data
- 14:30-15:00 **Jordan Tabov**
Institute of Mathematics and Informatics, Bulgarian Academy of Sciences
The holy brothers Cyril and Methodius were Greeks or Bulgarians

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- 9:30 -10:00 **Lakshmi Kameswari**
Modern College of Business and Science, Muscat, Oman
Augmentet inverse graphs
- 10:00-10:30 **Slavi Georgiev**
Institute of Mathematics and Informatics, Bulgarian Academy of Sciences
Delay differential equations modelling of brood and population dynamics in a honeybee colony
- 10:30-11:00: **Biulent Idirizov**
Institute of Mathematics and Informatics, Bulgarian Academy of Sciences
A Robust Approach to grayscale Image Denoising: Integrating Neighborhood-Based Filtering and Wavelet Thresholding

11:00-11:30 **Ivan Georgiev**

Institute of Mathematics and Informatics, Bulgarian Academy of Sciences

Optimal distribution of vehicles in the urban route scheme with a mixed transport fleet and minimum costs and harmful emissions in the conditions of the city of Ruse

11:30-13:00 **Lunch break**

13:00-13:30 **Svetoslav Hadzhiivanov**

Institute of Mathematics and Informatics, Bulgarian Academy of Sciences

Designing a Scalable Hedge Ratio Optimization System Using the Actor Model

13:30-14:00 **Oksana Kharchenko¹, Zlatinka Kovacheva^{1,2}**

¹ Institute of Mathematics and Informatics, Bulgarian Academy of Sciences

² University of Mining and Geology "St. Ivan Rilski", Sofia, Bulgaria

Frequency Modulated Signal Standing Out by Stochastic Resonance Effect

14:00-14:30: **Volodymyr Chumakov^{1,2}, Oksana Kharchenko³, Zlatinka Kovacheva^{3,4},**

Alexander Gritsunov⁵, Denis Kostin⁵, Vasyi Tuz⁵, Vasiliy Muraveinik⁶

¹Brera Astronomical Observatory, Italian National Institute for Astrophysics (INAF), Milano/Merate, Italy

² Kharkiv National University of Radio Electronics, Kharkiv, Ukraine

³ Institute of Mathematics and Informatics, Bulgarian Academy of Sciences

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⁵ Kharkiv National University of Radio Electronics, Kharkiv, Ukraine

⁶ Liability Company TRIX, Chernigov, Ukraine

Investigation of high-power pulsed shock impact mechanism efficacy

14:30-15:00 **Yuri Dimitrov^{1,2},**

¹University of forestry, Sofia, Bulgaria

²Institute of Mathematics and Informatics, Bulgarian Academy of Sciences

First Derivative Approximations and Applications