



SOUTH-WEST UNIVERSITY
"NEOFIT RILSKI"

PROGRAM



11th International Conference

“Modern trends in science”

FMNS-2025

11 - 15.06.2025, *Blagoevgrad, BULGARIA*

Patronized by
Prof. Nikolay Marin, PhD
Rector of South-West University

<http://www.fmns.swu.bg>



BULGARIAN
SCIENCE
FUND

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CONFERENCE TOPICS:

Chemistry

Physics

Geography

Ecology and Environmental Protection

Mathematics

Informatics

Methodology in Education

Program Overview

Registration (11.06.2025)

13:00 – 18:30

University Conference Centre “Bachinovo”

Opening Ceremony (12.06.2025)

10:00 – 10:30

Central Auditorium, Conference Center

Plenary Lectures (12.06.2025)

Central Auditorium, Conference Center

10:30 – 11:10

Prof. DSc Peter Boyvalenkov,
Institute of Mathematics and Informatics, Bulgarian Academy of Sciences
"Polarization of spherical codes and designs"

11:10 – 11:50

Prof. Vesna Stankov Jovanović, PhD,
University of Niš

"Advancements in Sample Preparation Techniques for the Analysis of Persistent Organic Pollutants: A Focus on PAHs"

11:50-12:30

Assoc. Prof. António Domingos, PhD, NOVA University of Lisbon

"What is the professional
knowledge of teachers to integrate STEM into their teaching practices?"

Group photo - in front of the central entrance of the Conference center of South-West University - "Bachinovo"

12.06.2025

12:30

Plenary Lectures (13.06.2025)

Central Auditorium, Conference Center

10:30 – 11:10

Assoc. Prof. Sanka Velichkova Gateva-Kostova, PhD,
Institute of Electronics, Bulgarian Academy of Sciences
"Coherent Magneto-Optical Resonances in alkali atoms and their applications"

11:10-11:50

Prof. Stoyan Nedkov, PhD,
National Institute of Geophysics, Geodesy and Geography, Bulgarian Academy of Sciences

"Mapping of ecosystem services and the transformative change of the European environmental policy"

11:50-12:30

Prof. Krasimir Manev, PhD, New Bulgarian University
„Mathematics in the early education of programmers"

Sessions

12.06.2025

13:30 – 15:30 and 16:00 – 18:00
University Conference Center “Bachinovo”

13.06.2025

13:30 – 15:30 and 16:00 – 18:00
University Conference Center “Bachinovo”

Poster sessions

12.06.2025 and 13.06.2025
18:00 – 19:30

Special session

“Challenges and Opportunities for Implementing STEM Approaches in Secondary and Higher Education”

14.06.2025

10:00 – 12:00

Conference Hall

Welcome Party

12.06.2025

18:00 – 20:00

University Conference Center “Bachinovo”

Official dinner

13.06.2025

20:00

University Conference Center “Bachinovo”

Social program

14.06.2025

9:30 – 14:00

Section: Chemistry

Hall 4

Thursday, June 12th	
Chairman: Assoc. Prof. Mitko Stoev	
13:30-13:45	O-C-1 Chemical composition of underground waters as a tool for finding connections between caves (applied for Nanzheng area, Shaanxi province, Central China) <i>David Havlíček, Michal Filippi, Zdeněk Motýčka, Kateřina Havlíčková</i>
13:45-14:00	O-C-2 Preparation and characterization of molecular crystal based on 2D carriers of NLO properties <i>Ivan Němec, Irena Matulková, Ivana Čisarová, Soňa Kohúteková, Petr Němec</i>
14:00-14:15	O-C-3 Isoindoline-1,3-diimine Derivatives Investigated by NMR/XRD/DFT Approach <i>Stanislava Majerova, Ales Ruzicka</i>
14:15-14:30	O-C-4 Structurally Tunable Main Group Metal Complexes Bearing an Electronically Versatile/Fluxional Biguanide Ligand <i>Lukas Vlk, Tomas Chlupaty, Alena Hoffmannova, Zdenka Ruzickova, Ales Ruzicka</i>
14:30-14:45	O-C-5 Hydrogen Peroxide Production: A Sustainable Electrochemical Perspective <i>Desislava Apostolova, Ivo Bardarov, Maris Mathew, Anders Tjell, Ema Gričar, Mark Stari, Igor Plazl, Pedro Martins, Miha Nosan, Torsten Mayr, Dušan Strmcnik, Boštjan Genorio</i>
14:45-15:00	O-C-6 Upcycling Carbon Fiber Composites into Flash Graphene: A High Efficiency Electrocatalyst for H ₂ O ₂ Synthesis <i>Ivo Bardarov, Elitsa Chorbazhiyska, Desislava Apostolova, Pedro Martins, Bostjan Genorio</i>
15:00-15:15	O-C-7 The electrochemical activation of a ceria-based sensor for ofloxacin detection <i>Aleksandar Stanojević, Tijana Jovanović, Emilija Pecev-Marinković, Mihajlo Kulizić, Aleksandar Lolić, Aleksandra Pavlović, Ivana Rašić Mišić</i>
15:15-15:30	O-C-8 The comparative evaluation of post-modification activated CPEs modified with MWCNTs, ZrO ₂ and Gd ₂ O ₃ for fluoroquinolone detection <i>Tijana Jovanović, Aleksandar Stanojević, Boris Stanković, Emilija Pecev-Marinković, Branka Petković, Milica Petrović, Ivana Rašić Mišić</i>
Coffee break	
Chairman: Assoc. Prof. Petko Mandjukov	
16:00-16:15	O-C-9 Production of hydrochar from rice husk by hydrothermal carbonization <i>A.B. Toibazarova, N. O. Appazov</i>
16:15-16:30	O-C-10 Extraction of rice husk and preparation of fatty acid monoglycerides from rice husk extract. <i>Bekzhan Alimkhan, Nurbol Appazov, Magzhan Bekhozhaev</i>
16:30-16:45	O-C-11 Battery Emulator built by using RISC Microcontroller architecture <i>Dimitar Boychev, Blagoy Burdin, Daria Vladikova</i>
16:45-17:00	O-C-12 Porous One-dimensional Carbon Nanostructures Derived from Biomass Wastes as Efficient Pt-free Cathodes for Green Hydrogen Production <i>Sara Mahmood Adnan, Eiman. K. Almohannadi, Kamel Eid</i>
17:00-17:15	O-C-13 Technologies for the production of activated carbon and features of the raw materials used <i>Saken A. Kanzhar, Nurlan O. Appazov</i>
17:15-17:30	O-C-14 Metrological aspects of analysis of methyl-mercury in marine sediment and biota <i>Ava Amideina, Anna Maria Orani, Sabine Azemard, Petko Mandjukov</i>
17:30-17:45	O-C-15 MP-AES determination of trace elements in waters. Method validation <i>Ava Amideina, Tsvetanka Avramova, Petko Mandjukov</i>

Section: Physics
Conference hall

Friday, June 13th	
Chairman: Assoc. Prof. Svetoslav Kolev	
13:30-13:45	O-P-1 Multiferroics- preparation method and physical properties <i>Svetoslav Kolev, Tatyana Koutzarova, Borislava Georgieva, Todor Cholakov</i>
13:45-14:00	O-P-2 Impact of Nutritional Fortification on the Pulsed Photostimulated Luminescence Response of Salts <i>Aleksandar Krleski, Kristina Smokrović, Ivica Đilović, Luka Bakrač, Nadica Maltar-Strmečki, Ralitsa Stanoeva</i>
14:00-14:15	O-P-3 Thermoluminescent Properties of Salt-Based Materials Modified by Nutritional Supplementation <i>Aleksandar Krleski, Ralitsa Stanoeva, Ivana Fabijanikj Sandeva, Lihnida Stojanovska-Georgievska, Margarita Ginovska, Hristina Spasevska</i>
14:15-14:30	O-P-4 Gelatine - glass microbubbles hydrocolloid as potential medical phantom material in computed tomography <i>Ginka Exner, Veselina Georgieva, Yordan Marinov, Georgi Tankovski, Nikoleta Traikova</i>
14:30-14:45	O-P-5 Some physical and physicochemical properties of jelly dessert prepared from gelatin and orange juice <i>Georgi Tankovski, Ivan Bodurov, Ginka Exner</i>
14:45-15:00	O-P-6 Latest observations with the telescopes of the Astronomical Observatory at the University of Shumen <i>Dragomir Marchev, Borislav Borisov, Sunay Ibryamov, Teodora Atanasova-Sartliiska, Galina Yordanova, Alex Georgiev</i>
15:00-15:15	O-P-7 Superscaling analysis of inclusive electron and (anti)neutrino scattering within the coherent density fluctuation model <i>Martin Ivanov, Anton Antonov</i>
Coffee break	

Section: Ecology and Environmental Protection
Hall 4

Friday, June 13th	
Chairman: Assist. Prof. Miroslav Ivanov	
13:30-13:45	O-EEP-1 Invasive alien freshwater fish species in Black Sea rivers and coastal lakes <i>Luchezar Pehlivanov, Stefan Kazakov, Tihomir Stefanov, Teodora Trichkova</i>
13:45-14:00	O-EEP-2 Development of Asphalt Concrete Production Technologies Using Ash Residues from Thermal Power Plants and Oil Waste <i>Zhangyl Abilbek, Panabek Tanzharikov, Koktem Yerimbetov, Nurzhan Suleymenov and Saken Seitzhanov</i>
14:00-14:15	O-EEP-3 External moss walls: from the inside out <i>Gana Gecheva, Zhana Petkova, Stoyan Damyanov, Deyana Georgieva, Vesselin Baev, Mariyana Gozmanova, Elena Apostolova, Galina Yahubyan</i>
14:15-14:30	O-EEP-4 Comparison of the density and biomass of macrobenthic communities from two regions of Marine Antarctic <i>Lyubomir Kenderov, Eli Mincheva, Raina Hristova</i>
14:30-14:45	O-EEP-5 Development of an efficient “Compact module for filter water” <i>Polvon Sharipov, Khasan Khasanov</i>
14:45-15:00	O-EEP-6 A new metric for ecological status assessment of standing water bodies in Bulgaria <i>Emilia Varadinova, Georg Wolfram, Violeta Tyufekchieva, Yanka Vidinova, Rabia Soufi, Monika Grossschartner</i>
15:00-15:15	O-EEP-7 Macrophyte-Based Assessment of Upland Rivers: Reference Index and Pollution Index <i>Silviya Stankova, Gana Gecheva</i>
15:15-15:30	O-EEP-8 Risk Assessment in Oil and Gas Production: A Case Study of the Kyzylorda Region <i>Zhangyl Abilbek, Panabek Tanzharikov, Aidana Nurman, Aigul Erzhanova, Nurlybek Akhmetov</i>
Coffee break	
Chairman: Assit. Prof. Veselina Dalgacheva	
15:45-16:00	O-EEP-9 Impact of coal fired power plant activity on the ecological status of the river ecosystems: Case study of Sokolitsa River, Bulgaria <i>Vanina Mitseva, Tsevetila Isheva, Mila Ihtimanska, Emilia Varadinova</i>
16:00-16:15	O-EEP-10 Herpetofauna in the Northwestern Foothills of the Pirin Mountains <i>Aleksander Pulev, Emanuil Mitrevichin, Lidia Sakelarieva, Hristo Peshev, Krasimir Stoyanov, Galina Bezinska</i>
16:15-16:30	O-EEP-11 Remote sensing based burn severity mapping and assessing post-fire impacts on forests vegetation in three cases of forest fires in Bulgaria <i>Miroslav Ivanov, Konstantin Tyufekchiev, Veselina Dalgacheva</i>
16:30-16:45	O-EEP-12 Remote sensing based assessment of water quality in the Nador lagoon, Morocco <i>Miroslav Ivanov, Emilia Varadinova, Veselina Dalgacheva, Ouia El Mekki, Konstantin Tuefekchiev</i>
16:45-17:00	O-EEP-13 First Records of Autumn Activity of <i>Xerotyphlops vermicularis</i> (Merrem, 1820) (Reptilia: Typhlopidae) in Bulgaria <i>Aleksander Pulev, Lidia Sakelarieva, Krasimir Stoyanov, Emanuil Mitrevichin</i>
17:00-17:15	O-EEP-14 New Records of Winter Activity of <i>Mediodactylus kotschy</i> (Steindachner, 1870) (Reptilia: Gekkonidae) in Bulgaria <i>Aleksander Pulev, Lidia Sakelarieva, Krasimir Stoyanov, Hristo Peshev, Daniel Bisset, Emanuil Mitrevichin</i>
17:15-17:30	O-EEP-15 Trail cameras based estimation of the brown bear (<i>Ursus arctos</i> Linnaeus, 1758) density in one isolated part of Rila National Park <i>Miroslav Ivanov, Georgi Manolev, Veselina Dalgacheva</i>
17:30-17:45	O-EEP-16 Comparative analysis of the production and technological potential of the Stanushina variety under the condition of organic/intensive cultivation <i>Aleksandar Klincharov</i>

**Geography
Hall 3**

Thursday, June 12th	
Chairman: Assist. Prof. Vladimir Karadzhov	
13:30-13:45	O-G-1 Spatial Analysis of Employment and the Working Poor <i>Aleksandra Ravnachka, Velimira Stoyanova, Boris Kazakov, Poli Roukova, Emilia Patarchanova</i>
13:45-14:00	O-G-2 Health status and integration of the Roma into the healthcare system of Bulgaria <i>Boris Kazakov, Aleksandra Ravnachka, Velimira Stoyanova</i>
14:00-14:15	O-G-3 Social policy and the working poor in the context of regional demographic characteristics in Bulgaria <i>Gergana Nikolova, Emilia Patarchanova, Alexandra Ravnachka, Miroslav Ivanov, Vasil Pandurski, Boris Kazakov</i>
14:15-14:30	O-G-4 Mapping and spatial analysis of vertical relief reshaping in the landslide near the village of General Geshevo (Eastern Rhodopes) <i>Alexander Gikov, Stelian Dimitrov, Martin Iliev</i>
14:30-14:45	O-G-5 Integrating GIS in Water Resources Governance for Regional Sustainability: A Case Study from Blagoevgrad Province, Bulgaria <i>Galina Bezinska, Siyka Keseva, Krasimir Stoyanov</i>
14:45-15:00	O-G-6 GIS and Internet of Things <i>Matija Milić</i>
15:00-15:15	O-G-7 A socio-geographical analysis of demographic aging in Bulgaria and Italy at the Nuts II level <i>Dimitar Simeonov</i>
Coffee break	
Chairman: Assist. Prof. Miroslav Ivanov	
15:45-16:00	O-G-8 Heavy metal content in bottom sediments of the Arda River basin upstream of the Kardzhali Dam <i>Zornitza Cholakova</i>
16:00-16:15	O-G-9 Spatial and temporal analysis of the distribution of copper in soils affected by a long-term impact of copper smelter <i>Nadezhda Nikolova, Miglena Zhiyanski</i>
16:15-16:30	O-G-10 Morphological and Hydrological Features of the Krajiste Region (Southeastern Serbia) <i>Milena Milenova; Krasimir Stoyanov; Galina Bezinska</i>
16:30-16:45	O-G-11 Climatic Characteristics of the Krajiste Region (South-east Serbia) and Their Impact on Relief and Geomorphological Processes <i>Krasimir Stoyanov; Milena Milenova; Galina Bezinska</i>
16:45-17:00	O-G-12 An overview of European geographical research on natural borders and their effects <i>Marina Pehlivanova</i>
17:00-17:15	O-G-13 Virtual Tourism as a Tool for Enhancing Destination Accessibility and Sustainability <i>Vladimir Karadzhov, Emilia Patarchanova</i>
17:15-17:30	O-G-14 Contemporary tourism-geographical development of Karlovy vary – a comprehensive model for sustainable development <i>Maria Nosikova</i>

Friday, June 13th	
Chairman: Assoc. Prof. Aleksandra Ravnachka	
13:30-13:45	O-G-15 Geography of the transport system in the academic field of the Velikotarnovski geographical school <i>Emel Bilyalova</i>
13:45-14:00	O-G-16 Classification of Rural Areas in Southwest Planning Region in Bulgaria Based on Socioeconomic Development Criteria <i>Krasina Radomirska, Plamen Patarchanov</i>
14:00-14:15	O-G-17 Social Processes in the Border Municipalities of the Southwest Region in Bulgaria <i>Vasil Pandurski</i>
14:15-14:30	O-G-18 Household well-being and the risk of poverty <i>Emilia Patarchanova, Gergana Nikolova, Aleksandra Ravnachka, Veselina Dalgacheva, Vladimir Karadzhov</i>
14:30-14:45	O-G-19 Foreign Direct Investment in the Trakia Economic Zone: Models and Economic Effects <i>Olga Gavrilova</i>
14:45-15:00	O-G-20 The Policy of the European Union for the Development of the Agricultural Sector in Rural Areas. <i>Valentin Shlyakov</i>
15:00-15:15	O-G-21 Conditions, factors and spatial organization of viticulture in Pazardzhik region <i>Doycho Vaklinov</i>
Coffee break	

Section: Mathematics
Hall 5

Thursday, June 12th	
Chairman: Prof. DSc Peter Boyvalenkov	
13:30-13:45	O-M-1 An algebraic approach for construction of (t, s)-sequences <i>Vassil Grozdanov, Vesna Dimitrievska-Ristovska, Petar Sekuloski</i>
13:45-14:00	O-M-2 Multidimensional Quasi-Monte Carlo integration in weighted anchored Sobolev spaces <i>Vassil Grozdanov, Elmi Shabani</i>
14:00-14:15	O-M-3 The Erdős-Turán-Koksma inequality in Cantor systems <i>Atidzhe Hodzhova, Vassil Grozdanov</i>
14:15-14:30	O-M-4 About a new view on the golden ratio <i>Mikhail Kolev, Stanislava Stoilova</i>
14:30-14:45	O-M-5 On some methods of calculation of specific types of integrals <i>Mikhail Kolev, Stanislava Stoilova, Yana Vasileva</i>
14:45-15:00	O-M-6 Criterion of connectedness by clopen coverings <i>Zoran Misajleski</i>
15:00-15:15	O-M-7 On sequence convergence in (3,j)-metric spaces, $j \in \{1,2\}$ <i>Tomí Dimovski, Dončo Dimovski, Pavel Dimovski</i>
15:15-15:30	O-M-8 Some asymptotic results for the generalized directional short-time Fourier transform with fixed direction <i>Jasmina Veta Buralieva</i>
Coffee break	
Chairman: Prof. Dr. Mikhail Kolev	
16:00-16:15	O-M-9 Simulations of Electoral Systems: How Different Methods of Vote Allocation Affect Political Representation <i>Georgi Bratkov, Boyana Garkova</i>
16:15-16:30	O-M-10 On Some Applications of Second-Order Linear Differential Equations in Economy <i>Sashka Kandilarova</i>
16:30-16:45	O-M-11 Estimation of the difference between continuous and impulsive models <i>Tzanko Donchev, Nikolay Kitanov, Saba Iftikhar, Dimitar Kolev, Boyana Garkova</i>
16:45-17:00	O-M-12 Existence and stability for a parabolic initial and boundary value problem <i>Tzanko Donchev, Boyana Garkova, Saba Iftikhar, Dimitar Kolev, Nikolay Kitanov</i>
17:00-17:15	O-M-13 Attractors of M-Dissipative Evolution Inclusions <i>Tzanko Donchev, Iveta Nikolova, Nikolay Kitanov, Alina I. Lazu</i>
17:15-17:30	O-M-14 Mixed Semicontinuous Riemann-Liouville Evolution Inclusions <i>Tzanko Donchev, Boyana Garkova, Alina I. Lazu, Iveta Nikolova</i>

Friday, June 13th	
Chairman: Assoc. Prof. DSc Vassil Grozdanov	
16:45-17:00	O-M-15 Tolerance and Interval Graphs for Strategic Planning During Health Crises <i>Limonka Koceva Lazarova, Natasa Stojkovik, Aleksandra Stojanova Ilievska, Marija Miteva, Dusan Bikov</i>
17:00-17:15	O-M-16 Graph Theory Applications in Investment Analysis and Risk Modeling <i>Limonka Koceva Lazarova, Anastasija Antova, Natasa Stojkovik, Aleksandra Stojanova Ilievska, Vasko Kokalanov</i>
17:15-17:30	O-M-17 One More Result on Products of Distributions in Colombeau Algebra <i>Marija Miteva, Limonka Koceva Lazarova, Biljana Zlatanovska</i>
17:30-17:45	O-M-18 Persistent Homology-Based Regime Detection for Time Series Forecasting <i>Petar Sekuloski, Vesna Dimitrievska Ristovska</i>
17:45-18:00	O-M-19 Applications of LLM in geometry teaching <i>Petar Sokoloski</i>

Section: Informatics
Hall 5

Friday, June 13th	
Chairman: Assoc. Prof. Irena Atanasova	
13:30-13:45	O-I-1 Integrating Exon–Gene Structure into Neural Architectures for RNAseq Classification <i>Aleksandar Jovanović, Michael Sammeth</i>
13:45-14:00	O-I-2 Applications of Machine Learning Algorithms <i>Eyal Sadeh</i>
14:00-14:15	O-I-3 Comparative Analysis of Classification Algorithms on Big Datasets using WEKA <i>Aleksandar Stoimenovski, Irena Atanasova</i>
14:15-14:30	O-I-4 The Accessibility Impact from Changing Existing Schools into Experimental Schools without the Establishment of New Schools: Analyzing Kindergarten and Primary Schools of Florina, Greece, a Case Study <i>Irena Atanasova, Ilias Solakis</i>
14:30-14:45	O-I-5 Some Robotic Process Automation (RPA) Use Cases and Applications in Financial Industry <i>Vladislav Yurukov, Irena Atanasova</i>
14:45-15:00	O-I-6 Data mining - based predicting of students' evaluation and students' acceptance of Distance E-learning. Case study: South-West University "Neofit Rilski" <i>Irena Atanasova</i>
Coffee break	
Chairman: Assoc. Prof. Nadezhda Borisova	
15:30-15:45	O-I-7 Collaborative mindset and AI empowered Knowledge Management <i>Vladislav Yurukov, Irena Atanasova</i>
15:45-16:00	O-I-8 Numerical solution of some facility location and inventory control problems <i>Stefan Stefanov</i>
16:00-16:15	O-I-9 Analysis of data mining algorithms for predicting physical activity of urban populations <i>Irena Atanasova, Svetoslav Petkov</i>
16:15-16:30	O-I-10 Enhancing Computational Thinking and Code Comprehension through Advanced Parsons Puzzles <i>Ivo Damyanov, Martin Madzhov</i>

**Section: Methodology in Education
Conference Hall**

Thursday, June 12th	
Chairman: Assist. Prof. Dr. Damyana Grancharova	
13:30-13:45	O-ME-1 STEAM: learning content development, how to use it, difficulties <i>Ginka Exner</i>
13:45-14:00	O-ME-2 Distance and Independent Learning Contents in a Digital Environment <i>Juraqulova Zulayxo Ixtiyor, Boboev Abrorjon Khotamovich, Toshniyozova Farangiz Burxon</i>
14:00-14:15	O-ME-3 Application of Metacognitive Strategies and Artificial Intelligence in the Learning Process <i>Lyuba Petrova</i>
14:15-14:30	O-ME-4 Continuity issues in the content of the chemistry course between secondary school and university <i>A.B. Toibazarova, N.O. Appazov</i>
14:30-14:45	O-ME-5 Cross curricular relationships in teaching mathematics and informatics in lower secondary school <i>Mediha Topalova, Daniela Tuparova</i>
14:45-15:00	O-ME-6 Methods for Introducing Optimization Algorithms and Mathematical Modeling into the High School Mathematics Curriculum (Grades 8–10) through Interactive Platforms – Wolfram Alpha and Matlab <i>Elitsa Atanasova, Feim Musankov</i>
15:00-15:15	O-ME-7 Trakya University STEM Innovation Lab: Philosophy, Structure, Projects, and Future Vision <i>Sertaç Arabacıoğlu, Eylem Bayir</i>
15:15-15:30	O-ME-8 Modeling with scratch for solving movement problems at the lower gymnasium level <i>Rositsa Georgieva</i>
Coffee break	
Chairman: Assist. Prof. Aleksandra Tencheva	
16:00-16:15	O-ME-9 Interactive Learning with Virtual Reality and 3D Printing <i>Damyana Grancharova</i>
16:15-16:30	O-ME-10 Non-formal style in mathematics teaching <i>Nataliya Pavlova</i>
16:30-16:45	O-ME-11 Integrating Sudoku into 5th grade mathematics classes <i>Ivayla Gergova, Boyana Garkova</i>
16:45-17:00	O-ME-12 Prospective Teachers' Demographic Characteristics and Their Beliefs about Their Preparedness to Teach Mathematics <i>Metodi Glavche</i>
17:00-17:15	O-ME-13 The role of the competency-based approach in stem education <i>Krasimir Harizanov</i>
17:15-17:30	O-ME-14 Creative Activity in Food Industry Engineering <i>Rano Mirsamikova, Botir Usmonov</i>
17:30-17:45	O-ME-15 The implementation of stem education in the higher education system <i>Gulnora Aripova, Abror Boboev, Mahmuda Tadjibaeva</i>
17:45-18:00	O-ME-16 Application of a research approach in stem education <i>Sevinch Mustan</i>
18:00-18:15	O-ME-17 Challenges in Informatics Education: Analysis and Improvement Proposals <i>Samuil Zharev, Elena Karashtranova</i>

Special session
Conference Hall

“Challenges and Opportunities for Implementing STEM Approaches in Secondary and Higher Education”

14.06.2025

10:00 – 12:00

12:00-12:30 Coffee break

POSTER SESSION

Chemistry	
P-C-1	Could an Auophilicity play a role in dimeric Au (III) Diiminoisoindole Complexes? The Group 11 Complexes for the 11th FMNS! <i>Stanislava Majerova, Zdenka Ruzickova, Ales Ruzicka</i>
P-C-2	Positively charged heteroboranes: Synthesis and reactivity <i>Vlastimil Nĕmec, Josef Holub, Maksim A. Samsonov, Jan Vrána, Aleš Růžicka</i>
P-C-3	Biosorption of industrial dyes by the dried and inactivated lichen <i>Usnea barbata</i> <i>Katarina Stepić, Radomir Ljupković, Jovana Ickovski, Slobodan Ćirić, Aleksandra Đorđević, Tijana Jovanović, Aleksandra Zarubica</i>
P-C-4	Ethnopharmacological applications of <i>Salvia officinalis</i> L. in the Niš district: Traditional use in oral health disorders <i>Jovana Ickovski, Slobodan Ćirić, Aleksandra Đorđević, Katarina Stepić, Radomir Ljupković, Marija Marković, Vesna Stankov Jovanović</i>
P-C-5	Antimicrobial activity of <i>Hypericum barbatum</i> Jacq. essential oil <i>Aleksandra Đorđević, Goran Petrović, Jovana Ickovski, Radomir Ljupković, Jelena Stamenković, Slobodan Ćirić, Katarina Stepić</i>
P-C-6	Using innovative USB sensors in chemistry <i>Aleksandra Tencheva, Elitsa Chorbadzhiyska</i>
P-C-7	Characterization of electrocatalysts for cathodes in a microbial electrolysis cell <i>Katerina Angelova, Yordan Angelov, Elitsa Chorbadzhiyska</i>
P-C-8	Quantitative determination of calcium in the chicken eggshell by ICP-OES method <i>Emilija Pecev-Marinković, Aleksandra Pavlović, Jelena Mrmošanin, Ivana Rašić Mišić, Enisa Selimović, Katarina Milenković, Stefan Petrović, Denis Mitov</i>
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