



PROGRAM
OF
NATIONAL CONFERENCE
"NATURAL SCIENCES 2025"
(NCNS2025)



SHUMEN
2025



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The program is preliminary and may undergo corrections and additions during the course of the conference.



10 October 2025

14:00 – 16:00 Registration – Rectory, floor 3, auditorium 307

11 October 2025

8:00 – 8:50 Registration – Rectory, floor 2, Auditorium 202

9:00 – 9:10 Opening Ceremony – Auditorium 202

PLENARY LECTURE

9:10 – 9:45 Assoc. Prof. Stefan Valkov PhD, „**Surface modification of metals and alloys for the needs of modern biomedicine**“, *Institute of Electronics, Bulgarian Academy of Sciences, Technical University of Gabrovo*

9:45 – 10:00 **Coffee Break – Rectory, floor 2, Auditorium 202**

FIRST SESSION

Moderator: **Assoc. Prof. Zheni Dimitrova**

Auditorium: **202 (Rectorate)**

10:00 – 10:10 George Alexandrov, **Biodiversity in the Deep Ocean - Secrets and Changes**, *SU "Hristo Botev" - city of Ruse*

10:10 – 10:20 Dayana Manuelian, Yordan Georgiev, Daniela Pehlivanova, **Immune Support under Stress Conditions: Adaptogenic Properties of Sambucus nigra Extracts**, *Burgas State University "Prof. Dr. Asen Zlatarov" Institute of Neurobiology, Bulgarian Academy of Sciences*

10:20 – 10:30 Lidiya Taneva, Dimitar Doychev, **Long-term water quality alterations in coastal shallow lakes**, *Shumen University "Konstantin Preslavski"*

10:30 – 10:40 Stoyan Mihov, **Automated side-scan sonar mapping of riverbed substrates to identify potential sturgeon spawning habitats in the Danube River**, *Shumen University "Konstantin Preslavski"*

10:40 – 10:50 Victoria Ivanova, Korina Koster, Petar Stefanov, Maria Klashnikova, Yana Lozanova, Diana Danova, Vishnya Stoyanova, Emilia Stoimenova, Asya Tsanova, Albena Jordanova, **Effects of newly synthesized dendrimers on cell permeability**, *Sofia University "St Kliment Ohridski"*

10:50 – 11:00 **Coffee Break – Rectory, floor 2, Auditorium 202**

SECOND SESSION

Moderator: **Prof. Nikolay Natchev**

Auditorium: **202 (Rectorate)**



11:00 – 11:10 Aysun Ali, Pavlina Marinova, Nasko Petkov, Nikolay Nachev, **Public opinion study on brutalistic structures in the territory of the city of Shumen**, *Shumen University "Konstantin Preslavski"*

11:10 – 11:20 Daniela Mihova, Nikolay Nachev, **Where the newts live on land? Exploring terrestrial habitats preferences of Triturus dobrogicus (Kiritzescu, 1903) on Persin Island (Bulgaria). Methodological challenges and initial findings**, *Shumen University "Konstantin Preslavski"*

11:20 – 11:30 Vanya Vasileva, Sevdzan Sabrieva, Dora Kabakchieva, **Evaluation of the tourist functions of protected areas: a case study of Zlatny piasatsy nature park (Bulgaria)**, *Shumen University "Konstantin Preslavski"*

11:30 – 11:40 Jem Mustafa, Boris Topalov, Nia Peneva, **How we measured the latitude of the city of Varna in three ways during the spring equinox**, *Public Astronomical Observatory & Planetarium Nicolaus Copernicus*

11:40 – 11:50 Elif Ademova, **Impact of space technologies on environmental monitoring**, *Shumen University "Konstantin Preslavski"*

11:50 – 12:00 Kiril Valkanov, Marko Ivanov, Nikolay Nachev, **Forest Fires as an Ecological Threat to the Endemic Genger (Astragalus aitosensis, Ivan., 1969) in Bulgaria**, *Paisii Hilendarski University of Plovdiv, Shumen University "Konstantin Preslavski"*

12:00 – 12:40 Lunch – Rectory, floor 3

PUBLIC LECTURE

12:40 – 13:00 Veselin Dochev, **Water**, *Shumen University "Konstantin Preslavski"*

THIRD SESSION

Moderator: **Assoc. Prof. Sunay Ibryamov, PhD**

Auditorium: **202 (Rectorate)**

13:00 – 13:10 Samuil Savov, **Determining the synodic period of the Moon through measurements from photographs**, *Public Astronomical Observatory & Planetarium Nicolaus Copernicus*

13:10 – 13:20 Nikolay Tsvetkov, Dimitar Pavlov, **Determination of the apparent angular diameter of the Moon by the ancient Babylonian method**, *Public Astronomical Observatory & Planetarium Nicolaus Copernicus*

13:20 – 13:30 Nikolay Tsvetkov, Dimitar Pavlov, **Construction of Hertzsprung-Russell diagrams for the brightest and closest visible stars in the Earth's sky**, *Public Astronomical Observatory & Planetarium Nicolaus Copernicus*



13:30 – 13:40 Borislav Borisov, **Development of our understanding of the Solar System**, *Shumen University "Konstantin Preslavski"*

13:40 – 13:50 Daniela Stoeva, Georgi Kotlarski, Dimitar Dechev, Nikolay Ivanov, Maria Ormanova, Stefan Valkov, Valentin Mateev, Iliana Marinova, **Electromagnetic properties and characteristics of innovative nanostructured coatings**, *Institute of Electronics, Bulgarian Academy of Sciences, Technical University of Gabrovo, Technical University of Sofia, Institute of Robotics, Bulgarian Academy of Sciences*

13:50 – 14:00 Iliyana Peneva, **My unconventional STEM lesson about CERN**, *Vasil Drumev primary school Varna*

14:00 – 14:10 Coffee Break – Rectory, floor 3

POSTER SESSION

14:10 – 14:30 Rectory, floor 3

P1 Tsvetomira Ivanova, Sevginar Ibryamova, Tsveteslava Ignatova-Ivanova, Sylvia Atanasova-Stamova, Neli Ermenlieva, Emilia Georgieva, **Yeast ecology in white brined cheeses: relationships with physicochemical characteristics in artisanal and industrial products**, *Shumen University "Konstantin Preslavski", Medical University – Varna Prof. Dr. Paraskev Stoyanov*

P2 Daniela Pechlivanova, Borislav Assenov, Elena Dzhambazova, Petar Todorov, **Inhibition of angiotensin-converting enzyme type 2 impairs spatial memory in mice: Corrective treatment with a novel Ang 1-7 peptide**, *Institute of Neurobiology, Bulgarian Academy of Sciences, Sofia University "St. Kliment Ohridski", Chemical Technology and Metallurgy*

P3 Stoyan Karakashev, Dilyana Ivanova-Stancheva, Stanislav Donchev, Irina Yotova, **Relation between the negative charge of the bubbles and the structure of the surface layer of the water molecules**, *Shumen University "Konstantin Preslavski"*

P4 Stefani Toshkova, Polina Todorova, Sevginar Ibryamova, Darina Bachvarova, Nikolai Natchev, Tsveteslava Ignatova-Ivanova, **Bioaccumulation of microplastics in key fish species from the Bulgarian Black Sea waters**, *Shumen University "Konstantin Preslavski"*

P5 Borislav Assenov, Elena Dzhambazova, Dimo Angelov, Daniela Pechlivanova, Petar Todorov, **Dose-Dependent Antihyperalgesic Effects of a Novel Angiotensin 1-7 Analog in a Rat Model of Inflammatory Pain.**, *Institute of Neurobiology, Bulgarian Academy of Sciences, Sofia University "St. Kliment Ohridski", Chemical Technology and Metallurgy*

P6 Emilia Stoimenova, Ivan Minkov, Dimitrinka Arabadzhieva, Eduarda Encheva, **Investigation of interactions between rhamnolipids and lipid membranes at the**



water/air interface, *Sofia University "St. Kliment Ohridski", Institute of Physical Chemistry, Bulgarian Academy of Sciences*

P7 Polina Todorova, Stefani Toshkova, Sevginar Ibryamova, Darina Bachvarova, Nikolai Natchev, Tsveteslava Ignatova-Ivanova, **Microplastics in the freshwater fish Sulka (*Squalius cephalus*) from four Bulgarian reservoirs: Ticha Dam, Lozevo Dam**, *Shumen University "Konstantin Preslavski"*

P8 Hasan Hasanov, Ismail Ismailov, Ivaylo Parushev, Galin Georgiev, Cvetelina Georgieva, Yordanka Ivanova, Ivaylo Ivanov, Valerij Christov, **Electrophilic reactions of phosphorylated (hydroxyalkyl)allenes**, *Shumen University "Konstantin Preslavski", Medical University – Varna Prof. Dr. Paraskev Stoyanov*

P9 Emilia Stoimenova, Ivan Minkov, Vishnya Stoyanova, Emilia Stoimenova, Asya Tsanova, Albena Yordanova, **Studying the dynamic surface properties of dendrimers with antimicrobial properties and model membranes for their possible application in medicine**, *Sofia University "St. Kliment Ohridski"*

P10 Stoyana Ilieva, **Roots & Routes: Learning Sustainability Through Nature**, *ASSOCIATION "MOGA ZNAM TVORIA"*

P11 Seliha Lyoteva, Zheni Dimitrova, Asya Dragoeva, Vanya Koleva, **The Raspberry – food or medicine?**, *Shumen University "Konstantin Preslavski"*

P12 Dimi Arabadzhieva, Anna Guyrova, Ivan Minkov, Viktoria Milkova, **Model study of interactions between plant flavonoids and human globular protein transthyretin for the prevention of amyloidosis**, *Institute of Physical Chemistry, Bulgarian Academy of Sciences, Sofia University*

P13 Martin Stoyanov, Zheni Dimitrova, Asya Dragoeva, Vanya Koleva, **Medicinal plants as a tool to cardiovascular health support**, *Shumen University "Konstantin Preslavski"*

P14 Karamfil Kalchev, Yordan Yordanov, Galin Georgiev, Hasan Hasanov, Ivaylo Ivanov, Ismail Ismailov, **Evaluation of antityrosinase and antioxidant activity of phosphorylated 3-(α -hydroxyalkyl)allenes with protected hydroxyl group**, *Konstantin Preslavski University of Shumen, Shumen University "Konstantin Preslavski"*

P15 Leman Hasanova, Radostina Vasileva-Tcankova, **Structure of the ecological model of implementing an ecological approach in the subjects "Man and Nature" and "Chemistry and Environmental Protection" in the lower secondary and upper secondary stages of education**, *"John Exarch Bulgarian" Secondary School – Shumen Shumen University "Konstantin Preslavski"*

P16 Sinem Shabanova, Tsvetelina Mateeva, Gergana Manova, Karamfil Kalchev, Lyubomir Manov, **Assessment of Natural Background Radiation in the Tourist Area**



of Biserna Cave Based on In Situ Measurements, Shumen University “Konstantin Preslavski”, “Vasil Levski” National Military University

P17 Stela Asenova, Miglena Bankova, Irina Yotova, Dilyana Ivanova-Stancheva, Stoyan Karakashev, About the ion-specific effect on the foam films and foams, Shumen University “Konstantin Preslavski”

P18 Dimitar Vasilev, Nesrin Umer, Susceptibility of apple varieties to attack by apple plantain aphid (DYSAPHIS PLANTAGINEA PASS.), Shumen University “Konstantin Preslavski”

P19 Kostadin Deyanov, Gaps in the transposition of the Waste Framework Directive into national legislation and the municipal legislation of the Municipality of Varna, Technical University of Varna

P20 Kostadin Deyanov, Gaps in the reporting of waste management by streams in the Municipality of Varna, Technical University of Varna

P21 Yordanka Eneva, Inspire change! Health, traditions and technology in harmony with nature, NGO "I Can, I Know, I Create", Medical University - Varna "Prof. Dr. Paraskev Stoyanov

P22 Sunay Ibryamov, Evgeni Semkov, Asen Mutafov, Anton Strigachev, Rumen Bachev, Stoyanka Peneva, The unusual photometric variability of the PMS star V350 Cephei, University of Shumen, Shumen University “Konstantin Preslavski”

P23 Nina Arhangelova, Seniha Salim, Georgi Todorov, Tatyana Dimitrova, Teodora Dimova, Dimitrina Radeva, Measurements and analysis of the gamma radiation background in the area of the village of Rayuvtsi and Palitsa Dam, Shumen University “Konstantin Preslavski”, VTS “Simeon Veliki” – Veliki Preslav

P24 Daniela Nedeva, Physical processes and factors in electron beam and laser processing of metals, Technical University Gabrovo

14:30 – Closing Ceremony

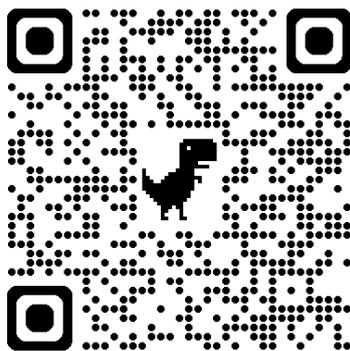
19:00 – Conference Dinner

12 October 2025

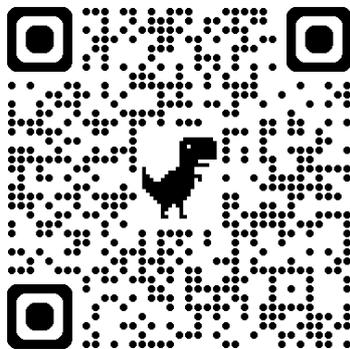
9:30 – 13:00 Excursion to National Historical-Archeological Reserve „Madara”



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