



ЮБИЛЕЙНА МЕЖДУНАРОДНА НАУЧНА КОНФЕРЕНЦИЯ

**„СИНЕРГЕТИКА И РЕФЛЕКСИЯ
В ОБУЧЕНИЕТО ПО МАТЕМАТИКА“**

посветена на 75 г. на проф. Сава Гроздев
22 – 24 октомври 2025, Пампорово

НАУЧНА ПРОГРАМА

Организатор:

Факултет по математика и информатика
при Пловдивски университет „П. Хилендарски“

SREM 2025
 $e^{i\pi} + 1 = 0$

ANNIVERSARY INTERNATIONAL SCIENTIFIC CONFERENCE

**“SYNERGETICS AND REFLECTION
IN MATHEMATICS EDUCATION”**

Dedicated to Prof. Sava Grozdev's 75th Anniversary
October 22 – 24, 2025, Pamporovo

SCIENTIFIC PROGRAM

Organizer

Faculty of Mathematics and Informatics
at the Paisii Hilendarski University of Plovdiv



22.10.2025 • HALL A**16:00 - 16:30** Official opening of the conference**16:30 - 17:00** **Anniversaries****23.10.2025 • HALL A****09:30 - 09:45** Vera Shopova, Ivan Dimitrov, ARTIFICIAL INTELLIGENCE AND SCRATCH AS A MEANS OF DEVELOPING MATHEMATICAL LITERACY IN 5TH GRADE**09:45 - 10:00** Valya Arnaudova, Todorka Terzieva, DEVELOPMENT OF SELF-ASSESSMENT SKILLS THROUGH COMPUTER-BASED ADAPTIVE TESTING**10:00 - 10:15** Elena Todorova, Todorka Terzieva, Evgeniya Angelova, REFLECTIVE EDUCATIONAL PRACTICES IN THE TRAINING OF STUDENTS, FUTURE TEACHERS OF COMPUTER SCIENCE AND INFORMATION TECHNOLOGY**10:15 - 10:30** Maria Vasileva, Georgi Penchev, INTEGRATING RELIABILITY MODELING INTO VERIFICATION AND VALIDATION EDUCATION**10:30 - 10:40** **Coffee Break****10:40 - 11:00** **Invited talk:** Preslav Nakov, TOWARDS TRULY OPEN, LANGUAGE-SPECIFIC, SAFE, FACTUAL, AND SPECIALIZED LARGE LANGUAGE MODELS**11:00 - 11:15** Simeon Monov, Emre Myumyun, Nikolay Pavlov, A TWO-TIER ADAPTIVE QUESTION-GENERATION FRAMEWORK FOR LONGITUDINAL SELF-DIRECTED LEARNING**11:15 - 11:30** Todor Atanasov, Asya Polyankova, Todorka Terzieva, AI-INFUSED MICROLEARNING FOR MATHEMATICAL REASONING: AN INTERDISCIPLINARY CLASSROOM STUDY**11:30 - 11:45** Ventsislav Dilyanov, Gergana Koleva, APPLICATION OF PROBLEM-BASED METHOD IN TRAINING OF STUDENTS IN INFORMATION TECHNOLOGY**11:45 - 12:00** Muharem Mollov, EXPERT EVALUATION – A COMPONENT OF COMPETENCY-BASED EDUCATION**12:00 - 14:00** **Lunch Break****14:00 - 14:15** Aleksandar Ivanov, Kosta Garov, Stefka Aneva, SURVEY OF STUDENTS' INTEREST IN LEARNING DEVELOPMENT AND DESIGN OF MOBILE APPLICATIONS IN ANDROID ENVIRONMENT WITH JAVA**14:15 - 14:30** Sofia Vasileva, Stefka Aneva, Kosta Garov, APPLICATION OF PROJECT-BASED LEARNING IN INFORMATION TECHNOLOGY AND GEOGRAPHY AND ECONOMICS CLASSES FOR 9TH GRADE**14:30 - 14:45** Stefka Aneva, Elena Todorova, METHODOLOGICAL ASPECTS FOR DEVELOPING REFLECTIVE SKILLS THROUGH THE STUDY OF SCRIPTING LANGUAGES IN MIDDLE SCHOOL**14:45 - 15:00** Konstantinos Koroxenos, ROBOTICS AS A TOOL FOR INTERDISCIPLINARY LEARNING – TRAINING FOR PRIMARY SCHOOL TEACHERS**15:00 - 15:20** **Coffee Break**

15:20 - 15:40

Invited talk: Gregoris Makrides, STEAME FUTURE IS HERE: DEVELOPING A STEAME TEACHER FACILITATOR REGIONAL ACADEMY

15:45 - 16:00

Ivaylo Staribratov, TRAINING FUTURE TEACHERS IN A STEM APPROACH

16:00 - 16:15

Todorka Glushkova, Marta Teofilova, Vanya Ivanova, Boyan Zlatanov, Dobrinka Boykina, MATHEMATICS ACROSS ART, ENGINEERING, AND TECHNOLOGY: A STEAME TRAINING APPROACH FOR STUDENT AND IN-SERVICE TEACHERS

16:15 - 16:30

Veneta Tabakova-Komsalova, Stanimir Stoyanov, MATHEMATICAL FOUNDATIONS OF SUBSYMBOLIC ARTIFICIAL INTELLIGENCE

16:30 - 17:00

Coffee Break

17:00 - 18:30

Discussion: IMPROVING THE LEVEL OF PREPARATION OF PUPILS, STUDENTS AND TEACHERS FOR HIGH ACHIEVEMENTS IN THE FIELD OF MATHEMATICS, INFORMATICS, INFORMATION TECHNOLOGIES, AND MATHEMATICAL LINGUISTICS

23.10.2025 • HALL B

09:15 - 09:30

Dobrinka Boykina, ON THE DEVELOPMENT OF STUDENTS' CRITICAL AND REFLECTIVE THINKING IN MATHEMATICS EDUCATION

09:30 - 09:45

Tatyana Sergeeva, Maria Shabanova, Nina Pronina, RUSSIAN-BULGARIAN COOPERATION IN THE FIELD OF WORKING WITH MATHEMATICALLY GIFTED CHILDREN AND TALENTED YOUTH

09:45 - 10:00

Ivan Shotlekov, Iliyana Shotlekova, THE COGNITIVE PARADOX: WHY MATHEMATICS MAJORS STRUGGLE WITH ELEMENTARY MATH PUZZLES

10:00 - 10:15

Vladimir Tirolski, SOCIAL-EMOTIONAL LEARNING IN SYNERGY WITH MATHEMATICAL AND FINANCIAL LITERACY

10:15 - 10:30

Asya Polyankova, OVERVIEW OF LINGUISTICS OLYMPIADS IN THE INTERNATIONAL AND BULGARIAN CONTEXT

10:30 - 10:45

Coffee Break

10:45 - 11:00

Denislav Marinov, Dobrinka Milusheva-Boykina, INTERACTIVE LESSON ON THE TOPIC "DERIVATIVE OF A FUNCTION"

11:00 - 11:15

Ivanka Vasileva, DIGITAL TOOLS WITH ARTIFICIAL INTELLIGENCE PADLET AND DIFFIT IN MATHEMATICS TEACHING FOR STUDENTS WITH DIFFERENT LEARNING STYLES IN THE 5TH GRADE

11:15 - 11:30

Milcho Ivanov, Elena Marinova, INVARIANTS IN 5TH GRADE

11:30 - 11:45

Diana Stefanova, Tatyana Madzharova, SOME PROBLEMS OF FUNCTIONAL EQUATIONS

11:45 - 12:00

Boyko Bantchev, VECTOR ALGEBRA – AN INDISPENSABLE TOOL FOR GEOMETRY

12:00 - 14:00

Lunch Break

14:00 - 14:15

Daniela Georgieva, Damyana Gandeve, Marta Teofilova, CONIC SECTIONS IN EXTRACURRICULAR ACTIVITIES IN MATHEMATICS

14:15 - 14:30

Milen Naydenov, Veselin Nenkov, SOME PROBLEMS ON GEOMETRIC PROBABILITY

14:30 - 14:45

Veselin Nenkov, MARION HEXAGONS AND ELLIPSES

14:45 - 15:00

Tatyana Madzharova, Nely Baeva, SOME APPLICATIONS OF THE DEFINITE INTEGRAL IN PHYSICS



15:00 - 15:15 Coffee Break

15:15 - 15:30 Galina Momcheva, Todorka Glushkova, VISUALIZATIONS: THE SYNERGY OF DIGITAL AND MATHEMATICAL COMPETENCIES

15:30 - 15:45 Penka Karadzhova, A TECHNOLOGICAL MODEL FOR PROVIDING SYNERGETIC SUCCESSION IN MATHEMATICS EDUCATION

15:45 - 16:00 Teodora Noncheva, SUMMER STEM CAMP AS AN EFFECTIVE MODEL FOR INCREASING STUDENTS' MOTIVATION AND INTEREST IN NATURAL SCIENCES AND MATHEMATICS

16:00 - 16:15 Rosen Nikolaev, Tanka Milkova, SOME PROBLEMS AND DISADVANTAGES OF USING ARTIFICIAL INTELLIGENCE IN MATHEMATICS EDUCATION

16:15 - 16:30 Mark Applebaum, Ofer Azar, Alisa Voslinsky, RISK, CONFIDENCE, AND EQUITY IN MATHEMATICS COMPETITIONS

16:30 - 17:00 Coffee Break

24.10.2025 • HALL B

09:30 - 11:30 Discussion: ETHICS, EQUITY, AND AI: WHO SHAPES THE RULES?

SREM 2025

$$e^{i\pi} + 1 = 0$$

With the financial support of:

Scientific project FP25-FMI-010 "Innovative interdisciplinary research in the field of informatics, mathematics, and pedagogy" of the Scientific Fund of the Paisii Hilendarski University of Plovdiv, Bulgaria;

European Union-NextGenerationEU, through the National Recovery and Resilience Plan of the Republic of Bulgaria, project № BG-RRP-2.004-0001-C01.

In cooperation with Evrika Foundation.



Clarification

Hall A is the big conference hall on Floor 1.

Hall B is the small conference hall on Floor 5 next to Lobby.