

Vinnytsia Mykhailo Kotsiubynskyi State Pedagogical University
Vinnytsia National Technical University
Pidstryhach Institute for Applied Problems of Mechanics and Mathematics NAS of Ukraine
Ivan Franko National University of Lviv
Kamianets-Podilskyi Ivan Ohienko National University
National Pedagogical Dragomanov University
Poltava V.G. Korolenko National Pedagogical University
Jan Kochanowski University of Kielce (Poland)
Morgan State University (USA)
Polytechnic University of Madrid (Spain)
University of Economy in Bydgoszcz (Poland)
University of Warmia and Mazury in Olsztyn (Poland)



III International Scientific and Practical Internet Conference
«*Mathematics and Informatics in Higher Education:
Challenges of Modernity*»

(dedicated to the memory of Professors
Pankov O. A. and Trokhymenko V. S.)

May 20-21, 2021, Vinnytsia, Ukraine

CONFERENCE PROGRAM

Vinnytsia – 2021

Vinnitsia Mykhailo Kotsiubynskyi State Pedagogical University, Faculty of Mathematics, Physics and Computer Science, Ostrozkoho str., 32, building № 3, Vinnitsia, 21001. E-mail: kafmathinf@vspu.edu.ua. The conference website <https://fmft.vspu.edu.ua/mainen/>.

SCIENTIFIC COMMITTEE

Natalia Lazarenko (*chair*, Vinnitsia, Ukraine), **Alla Kolomiets** (*vice-chair*, Vinnitsia, Ukraine), **Sergiy Bak** (Vinnitsia, Ukraine), **Tetiana Barbolina** (Poltava, Ukraine), **Mykola Bokalo** (Lviv, Ukraine), **Oleh Buhrii** (Lviv, Ukraine), **Volodymyr Fedorchuk** (Kamianets-Podilskyi, Ukraine), **Olexander Grushko** (Vinnitsia, Ukraine), **Roman Hurevych** (Vinnitsia, Ukraine), **Svitlana Kashuba** (Bydgoszcz, Poland), **Iryna Khomyuk** (Vinnitsia, Ukraine), **Vitalii Klochko** (Vinnitsia, Ukraine), **Oksana Klochko** (Vinnitsia, Ukraine), **Mariana Kovtonyuk** (Vinnitsia, Ukraine), **Ivan Konet** (Kamianets-Podilskyi, Ukraine), **Roman Kushnir** (Lviv, Ukraine), **Grzegorz Łysik** (Kielce, Poland), **Oleh Lopushansky** (Rzeszow, Poland), **David Luengo** (Madrid, Spain), **Volodymyr Mykhalevych** (Vinnitsia, Ukraine), **Mark Pankov** (Olsztyn, Poland), **Volodymyr Pelykh** (Lviv, Ukraine), **Vira Petruk** (Vinnitsia, Ukraine), **Mykola Pratsiovytyi** (Kyiv, Ukraine), **Vasyl Slyusarchuk** (Rivne, Ukraine), **Mykola Yevtuch** (Kyiv, Ukraine).

ORGANIZING COMMITTEE

Mariana Kovtonyuk (*chair*, Vinnitsia, Ukraine), **Sergiy Bak** (*vice-chair*, Vinnitsia, Ukraine), **Galyna Kovtonyuk** (*conference secretary*, Vinnitsia, Ukraine), **Ivanna Leonova** (*conference secretary*, Vinnitsia, Ukraine), **Vitaliy Polishchuk** (*technical support of the conference website*, Vinnitsia, Ukraine), **Oleh Buhrii** (Lviv, Ukraine), **Nataliya Zakharchenko** (Vinnitsia, Ukraine), **Svitlana Kyrylashchuk** (Vinnitsia, Ukraine), **Oksana Klochko** (Vinnitsia, Ukraine), **Olena Kvaterniuk** (Vinnitsia, Ukraine), **Olena Kosovets** (Vinnitsia, Ukraine), **Yaroslav Krupskyi** (Vinnitsia, Ukraine), **Volodymyr Mykhalevych** (Vinnitsia, Ukraine), **Stanislav Podolyanchuk** (Vinnitsia, Ukraine), **Dmytro Semenets** (Vinnitsia, Ukraine), **Olena Soia** (Vinnitsia, Ukraine), **Oksana Turzhanska** (Vinnitsia, Ukraine), **Lyubov Tyutyun** (Vinnitsia, Ukraine), **Viktor Shchyrba** (Kamianets-Podilskyi, Ukraine).

CONFERENCE PROGRAM

Thursday, May 20, 2021, PLENARY SESSION

9:00 – 10:00 **Registration**

10:00 – 11:00 **Opening of the Conference**

11:00 – 13:00 **Plenary talks**

Friday, May 21, 2021, SECTION SESSIONS

9:00 – 10:00 **Registration**

10:00 – 13:45 **Section talks**

13:45 – 15:00 **Lunch break**

15:00 – 15:30 **Closing of the Conference**

There will be plenary talks (duration 20 min.) and section talks (duration 15 min., i.e. 10 min. talk + 5 min. questions).

Connection details for all on-line meetings (with Google Meet connection) will be communicated in advance.

PLENARY SESSION
Thursday, May 20, 2021, Google Meet connection

Chair Natalia Lazarenko, Dr. Sc.
Vice-chair Alla Kolomiets, Dr. Sc.
Secretary Galyna Kovtonyuk, Ph. D.

1. 10:00– *Natalia Lazarenko, Dr. Sc.*, rector of Vinnytsia Mykhailo Kotsiubynskyi State Pedagogical University, Vinnytsia, Ukraine
10:20 WELCOME SPEECH TO THE PARTICIPANTS OF THE CONFERENCE
2. 10:20– *Alla Kolomiets, Dr. Sc.*, vice-rector for scientific work of Vinnytsia Mykhailo Kotsiubynskyi State Pedagogical University, Vinnytsia, Ukraine
10:40 WELCOME SPEECH TO THE PARTICIPANTS OF THE CONFERENCE
3. 10:40– *Mariana Kovtonyuk, Dr. Sc.*, Vinnytsia Mykhailo Kotsiubynskyi State Pedagogical University, Vinnytsia, Ukraine
11:00 IN MEMORY OF PROFESSOR VALENTYN TROKHIMENKO
4. 11:00– *Sergiy Bak, Dr. Sc.*, Vinnytsia Mykhailo Kotsiubynskyi State Pedagogical University, Vinnytsia, Ukraine
11:20 IN MEMORY OF PROFESSOR ALEXANDER PANKOV
5. 11:20– *Mykola Bokalo, Dr. Sc.*, Ivan Franko National University of Lviv, Lviv, Ukraine
11:40 ON SOLUTIONS OF ANISOTROPIC PARABOLIC EQUATIONS WITH VARIABLE EXPONENTS OF NONLINEARITY
6. 11:40– *Mykola Pratsiovytyi, Dr. Sc.*, National Pedagogical Dragomanov University, Kyiv, Ukraine
12:00 CONTINUOUS FUNCTIONS WITH LOCALLY COMPLEX STRUCTURES AND FRACTAL PROPERTIES RELATED TO THEM
7. 12:00– *Tetiana Barbolina, Dr. Sc.*, Poltava V.G. Korolenko National Pedagogical University, Poltava, Ukraine
12:20 SOLVING OF OPTIMIZATION PROBLEMS ON ARRANGEMENTS: THE REVIEW OF THE LATEST RESULTS
8. 12:20– *Volodymyr Fedorchuk, Dr. Sc., Vitalii Ivaniuk, Dr. Sc.*, Kamianets-Podilskyi Ivan Ohienko National University, Kamianets-Podilskyi, Ukraine
12:40 ADAPTIVE METHOD FOR IDENTIFYING MODELS OF NONLINEAR DYNAMICAL SYSTEMS IN THE FORM OF THE VOLTERRA INTEGRAL OPERATOR
9. 12:40– *Oksana Klochko, Dr. Sc.*, Vinnytsia Mykhailo Kotsiubynskyi State Pedagogical University, Vinnytsia, Ukraine
13:00 THE USE OF MACHINE LEARNING TECHNOLOGIES IN THE STUDY OF EDUCATIONAL/PEDAGOGICAL SYSTEMS

SECTION 1. MODERN PROBLEMS OF MATHEMATICS

Friday, May 21, 2021, Google Meet connection

Chair Oleh Buhrii, Dr. Sc.

Secretary Galyna Kovtonyuk, Ph. D.

1. 10:00– **Igor Abramchuk**, Vinnytsia National Technical University, Vinnytsia, Ukraine; **Taisiya Abramchuk**, Humanitarian Gymnasium 1, Vinnytsia, Ukraine; **Maxim Yurchenko**, Municipal institution "Tivrivsky Scientific Lyceum" of Vinnytsia Regional Council, Vinnytsia, Ukraine
ON USING RECURRENCE RELATIONS FOR SOLVING FUNCTIONAL EQUATIONS
2. 10:15– **Sergiy Bak, Dr. Sc., Galyna Kovtonyuk, Ph. D.**, Vinnytsia Mykhailo Kotsiubynskyi State Pedagogical University, Vinnytsia, Ukraine
ON WELL-POSEDNESS OF THE CAUCHY PROBLEM FOR SYSTEM OF OSCILLATORS IN WEIGHTED SPACES
3. 10:30– **Kateryna Buryachenko, Ph. D.**, Vasyl' Stus Donetsk National University, Vinnytsia, Ukraine; **Ihor Skrypnyk, Dr. Sc.**, Institute of Applied Math&Mechanics of NASU, Sloviansk, Ukraine
QUASILINEAR ELLIPTIC AND PARABOLIC EQUATIONS WITH NONSTANDARD GROWTH CONDITIONS
4. 10:45– **Iryna Chernega, Ph. D.**, Institute for Applied Problems of Mechanics and Mathematics, Lviv, Ukraine
STRUCTURE OF THE SPECTRA OF ALGEBRAS OF SYMMETRIC ANALYTIC FUNCTIONS ON BANACH SPACES
5. 11:00– **Yanina Goncharenko, Ph. D., Iryna Lysenko, Ph. D., Yulia Maslova, Ph. D., Mykola Pratsiovytyi, Dr. Sc.**, National Pedagogical Dragomanov University, Kyiv, Ukraine
METRIC, STATISTICAL AND FRACTAL THEORY OF G_2 -REPRESENTATION OF NUMBERS
6. 11:15– **Mariana Khoma, M. Sc., Oleh Buhrii, Dr. Sc.**, Ivan Franko National University of Lviv, Lviv, Ukraine
ON INITIAL-BOUNDARY VALUE PROBLEM FOR NONLINER INTEGRO-DIFFERENTIAL STOKES SYSTEM
7. 11:30– **Tetiana Kononovych, Ph. D.**, Poltava V.G. Korolenko National Pedagogical University, Poltava, Ukraine
THE BEST APPROXIMATION OF THE SUMS OF MULTIPLE TRIGONOMETRIC SERIES THAT SATISFY THE CONDITIONS OF INTEGRABILITY
8. 11:45– **Vira Lozynska, Ph. D.**, Pidstryhach Institute for Applied Problems of Mechanics and Mathematics NASU, Lviv, Ukraine
ON THE ALGEBRA OF POLYNOMIAL ω -ULTRADISTRIBUTIONS
9. 12:00– **Mykhaylo Mytrofanov, Ph. D.**, Pidstryhach Institute for Applied

- 12:15 Problems of Mechanics and Mathematics, Lviv, Ukraine
 PROPERTIES OF SEPARATING POLYNOMIALS ON REAL BANACH SPACES
10. 12:15– *Zoriana Novosad, Ph. D.*, Lviv University of Trade and Economics,
 12:30 Lviv, Ukraine
 ABSTRACT SHIFTS SIMILAR OPERATORS
11. 12:30– *Dariia Shevchuk*, Lesya Ukrainka Volyn National University, Lutsk,
 12:45 Ukraine
 SOLVING GEOMETRIC PROBLEMS WITH A COMPASS AND A RULER
12. 12:45– *Volodymyr Ilkiv, Dr. Sc., Yaroslav Slonovskyi, Postgraduate*, Lviv
 13:00 Polytechnic National University, Lviv, Ukraine
 THE TWO-POINT PROBLEM FOR EULER TYPE PARTIAL DIFFERENTIAL EQUATION
13. 13:00– *Olha Trofymenko, Ph. D., Yuliia Perevierzieva, MMath*, Vasyl' Stus
 13:15 Donetsk National University, Vinnytsia, Ukraine
 MEAN VALUE THEOREMS FOR POLYHARMONIC POLYNOMIALS

Poster talks

14. *Volodymyr Derech, Ph. D.*, Vinnytsia National Technical University, Vinnytsia, Ukraine
 ON THE INVERSE MONOID OF LOCAL AUTOMORPHISMS OF THE QUATERNION GROUP
15. *Denys Karakhanov, Uliana Nykoniuk*, Lesya Ukrainka Volyn National University, Lutsk, Ukraine
 SEARCH FOR PRIME NUMBERS IN THE HISTORY OF MATHEMATICS
16. *Uliana Nykoniuk*, Lesya Ukrainka Volyn National University, Lutsk, Ukraine
 FINDING THE BOUNDARIES OF SEQUENCES OF CHAIN FRACTIONS

SECTION 2. MODERN PROBLEMS OF COMPUTER SCIENCE.

MATHEMATICAL AND COMPUTER MODELING

Friday, May 21, 2021, Google Meet connection

Chair *Volodymyr Mykhalevych, Dr. Sc.*

Secretaries *Olena Kosovets, Ph. D., Olena Kvaterniuk, Ph. D.*

1. 11:00– *Svitlana Tkachenko, Postgraduate, Sergiy Bak, Dr. Sc.*, Vinnytsia
 11:15 Mykhailo Kotsiubynskyi State Pedagogical University, Vinnytsia, Ukraine
 IMPLEMENTATION OF CYCLE-GAN MODEL FOR IMAGE TRANSFORMATION INTO IMAGE WITH ANIME STYLE

2. 11:15– **Olena Kryvtsova, Ph. D.**, Poltava V.G. Korolenko National
11:30 Pedagogical University, Poltava, Ukraine
DEVELOPMENT OF APPLICATIONS FOR USE IN INCLUSIVE
EDUCATION
3. 11:30– **Roman Mysiuk, Postgraduate**, Ivan Franko National University of
11:45 Lviv, Lviv, Ukraine; **Volodymyr Yuzevych, Dr. Sc.**, Karpenko
Physico-mechanical Institute of the NAS of Ukraine, Lviv, Ukraine
DIANOSIS OF CORROSION FATIGUE IN UNDEGROUND
METAL CONSTRUCTIONS USING GENETIC ALGORITHMS
4. 11:45– **Natalia Sachaniuk-Kavets'ka, Ph. D.**, Vinnytsia National Technical
12:00 University, Vinnytsia, Ukraine, **Anastasia Kavets'ka, student**,
Vinnytsia National Medical University, Vinnytsia, Ukraine
OVERVIEW OF PROBLEMS AND PROBLEM STATEMENT OF
CREATING INFORMATION SECURITIES IN ACCESS CONTROL
SYSTEMS, USING THE UNIQUE CHARACTERISTICS OF
OBJECTS
5. 12:00– **Yuriy Dobranyuk, Ph. D.**, **Andriy Kozub**, Vinnytsia National
12:15 Technical University, Vinnytsia, Ukraine
COMPARATIVE ANALYSIS OF THE STRESS-STRAIN STATE
OF THE FREE SURFACE OF CYLINDRICAL SAMPLES DURING
ROLLING USING
6. 12:15– **Olena Kvaterniuk, Ph. D.**, **Tetiana Voloshko**, Vinnytsia Mykhailo
12:30 Kotsiubynskyi State Pedagogical University, Vinnytsia, Ukraine
QUALITY CONTROL OF UNDERGROUND PIPELINES TAKING
INTO ACCOUNT THE DEVELOPMENT OF CORROSION
CRACKS UNDER LOAD
7. 12:30– **Olena Kvaterniuk, Ph. D.**, Vinnytsia Mykhailo Kotsiubynskyi State
12:45 Pedagogical University, Vinnytsia, Ukraine; **Zhihua Liu, Ph. D.**,
Beijing Normal University, Beijing, P.R.China; **Serhii Kvaterniuk,**
Dr. Sc., Vinnytsia National Technical University, Vinnytsia, Ukraine
MATHEMATICAL MODELING OF THE DYNAMICS OF
POPULATIONS BASED ON SYSTEMS OF NONLINEAR
DIFFERENTIAL EQUATIONS
8. 12:45– **Volodymyr Mykhalevych, Dr. Sc.**, **Oksana Tiytyynnyk, Ph. D.**,
13:00 Vinnytsia National Technical University, Vinnytsia, Ukraine
INTERCOMPARISON THE MODELS DAMAGE SUMMATION
HEREDITARY TYPE
9. 13:00– **Oleksii Panasenko, Ph. D.**, Vinnytsia Mykhailo Kotsiubynskyi State
13:15 Pedagogical University, Vinnytsia, Ukraine
USING THE EM ALGORITHM FOR FITTING BAYESIAN
NETWORKS WITH HIDDEN VARIABLES
10. 13:15– **Volodymyr Yuzevych, Dr. Sc.**, Karpenko Phisico-Mechanical Institute
13:30 of the National Academy of Sciences of Ukraine, Lviv, Ukraine
QUALITY CONTROL OF UNDERGROUND PIPELINES TAKING
INTO ACCOUNT THE DEVELOPMENT OF CORROSION

CRACKS UNDER LOAD

11. 13:30– *Victor Shchyrba, Ph.D., Olesya Furtel*, Kamianets-Podilskyi Ivan Ohiienko National University, Kamianets-Podilskyi, Ukraine
13:45

USE OF MODERN COMPUTER TECHNOLOGIES IN THE STUDY OF COMPLEX PROCESSES

Poster talks

12. *Oksana Yatsko, Ph. D.*, Yuriy Fedkovych Chernivtsi National University, Chernivtsi, Ukraine

APPLICATION OF DATA MINING IN THE FIELD OF BUSINESS

13. *Vitalii Klochko, Dr. Sc.*, Vinnytsia National Technical University, Vinnytsia, Ukraine; *Oksana Klochko, Dr. Sc.*, Vinnytsia Mykhailo Kotsiubynskyi State Pedagogical University, Vinnytsia, Ukraine

APPLICATIONS OF SOME SPECIAL FUNCTIONS IN MATHEMATICAL MODELING

14. *Mykola Mykhalenych, Postgraduate, Igor Guran, Ph. D.*, Ivan Franko National University of Lviv, Lviv, Ukraine

DYNAMIC SCHEMES OF VORONOI

15. *Andrii Cheilytko, Dr. Sc., Serhii Ilin, Dr. Sc., Anastasiia Kaliuzhna*, Zaporizhia National University, Zaporizhia, Ukraine

FEATURES OF MODELING OF VORTICAL DEVICES

SECTION 3. CREATION OF EDUCATIONAL ENVIRONMENT IN MATHEMATICS AND COMPUTER SCIENCE IN HIGHER EDUCATION.

MONITORING OF THE QUALITY OF EDUCATION: TOOLS AND TECHNOLOGIES

Friday, May 21, 2021, Google Meet connection

Chair Mariana Kovtonyuk, Dr. Sc.

Secretaries Oksana Turzhanska, Ph. D., Nataliya Zakharchenko, Ph. D.

1. 10:00– *Zlata Bondarenko, Ph. D, Svitlana Kyrylashchyk, Ph. D, Galyna Chernovolok, Ph. D.*, Vinnitsa National Technical University, Vinnytsia, Ukraine

IMPROVEMENT OF THE CONTENT OF MATHEMATICAL DISCIPLINES IN HIGHER EDUCATION INSTITUTIONS FOR TRAINING OF FUTURE SPECIALISTS IN THE FIELD OF INFORMATION TECHNOLOGY

2. 10:15– *Rostislav Motsyk, Ph. D.*, Kamianets-Podilskyi Ivan Ohiienko National University, Kamianets-Podilskyi, Ukraine
10:30

MOBILE LEARNING MANAGEMENT SYSTEMS

3. 10:30– *Olena Korolyuk, Ph. D.*, Zhytomyr Ivan Franko State University,

- 10:45 Zhytomyr, Ukraine
 METHODOLOGICAL TASKS AS A MEANS OF FORMING
 PROFESSIONAL COMPETENCE OF FUTURE MATHEMATICS
 TEACHERS
4. 10:45– *Mariana Kovtonyuk, Dr. Sc.*, Vinnytsia Mykhailo Kotsiubynskyi State
 11:00 Pedagogical University, Vinnytsia, Ukraine
 FORESIGHT MODELING OF SYNERGISTIC EDUCATIONAL
 SPACE OF BACHELORS OF MATHEMATICS
5. 11:00– *Ivan Lenchuk, Dr. Sc.*, Ivan Franko Zhytomyr State University,
 11:15 Zhytomyr, Ukraine
 INTERNAL PROJECTION METHOD AND CUBE METRI
6. 11:15– *Tetiana Zhyrova, Ph. D., Nataliia Kotenko, Ph. D.*, Kyiv National
 11:30 University of Trade and Economics, Ukraine
 SCRUM-METHODOLOGY AS A MEANS OF CREATING AN
 EDUCATIONAL ENVIRONMENT
7. 11:30– *Natalia Shapovalova, Ph. D., Larisa Panchenko, Ph. D.*, National
 11:45 Pedagogical Dragomanov University, Kyiv, Ukraine
 MUTUAL LOCATION OF TWO STRAIGHT LINES ON THE
 LOBACHEVSKY PLANE IN SUPPORTING ABSTRACTS
8. 11:45– *Lesya Bilokon, teacher*, Municipal institution "Pohrebyshche basic
 12:00 institution of general secondary education of I-III degrees №1" of
 Pohrebyshche city council of Vinnytsia district of Vinnytsia region
 THEORETICAL ASPECTS OF STUDENTS CREATIVE THINKING
 DEVELOPMENT
9. 12:00– *Nataliia Byshevets, Ph. D.*, National University of Ukraine on Physical
 12:15 Education and Sport, Kyiv, Ukraine
 IT COMPETENCE OF EDUCATION APPLICANT AT HIGHER
 EDUCATIONAL ESTABLISHMENTS IN PHYSICAL CULTURE
 AND SPORT
10. 12:15– *Inna Hulivata, Dr. Sc.*, Vinnytsia Institute of Trade and Economics of
 12:30 KNUTE, Vinnytsia, Ukraine
 DEVELOPMENT OF STUDENTS SOFT SKILLS IN HIGHER
 EDUCATION: PROBLEMS AND PERSPECTIVES

Poster talks

11. *Sergiy Galetskyi, Ph. D., Tetiana Galetska, Ph. D.*, National
 University of Ostroh Academy, Ostroh, Ukraine
 PECULIARITIES OF USING SOFTWARE FORMS OF
 FORMATION OF COMMUNICATIVE COMPETENCE OF
 FUTURE TEACHERS OF FOREIGN LANGUAGES
12. *Ivanna Leonova*, Vinnytsia Mykhailo Kotsiubynskyi State
 Pedagogical University, Vinnytsia, Ukraine
 USING YOUTUBE VIDEO SOURCES AT DISTANCE LEARNING
13. *Oksana Turzhanska, Ph. D.*, Vinnytsia Mykhailo Kotsiubynskyi State
 Pedagogical University, Vinnytsia, Ukraine
 PECULIARITIES OF USING SMART-TECHNOLOGIES IN

- TEACHING MATHEMATICS IN STEM-EDUCATION
14. **Olena Smalko, Ph. D.**, Kamianets-Podilskyi Ivan Ohienko National University, Kamianets-Podilskyi, Ukraine
ABOUT THE NECESSITY AND POSSIBILITIES OF DEVELOPING THE DESIGN SKILLS TO COMPUTER SCIENCE STUDENTS
 15. **Sergey Likhoshorsky, Postgraduate, Irina Khomyuk, Dr. Sc., Victor Khomyuk, Ph. D.**, Vinnytsia National Technical University, Vinnytsia, Ukraine
USING CHAT-BOTS AS AN INTERACTIVE TECHNOLOGY IN THE EDUCATIONAL PROCESS
 16. **Nataliia Zakharchenko, Ph. D.**, Vinnytsia Mykhailo Kotsiubynskyi State Pedagogical University, Vinnytsia, Ukraine
SOME ASPECTS OF DISTANCE LEARNING OF STUDENT IN A CONDITION PANDEMIC
 17. **Zhyrova Tetiana, Ph. D., Kotenko Nataliia, Ph. D.**, Kyiv National University of Trade and Economics, Kyiv, Ukraine
ANALYSIS OF EDUCATIONAL PROGRAMS ON THE AVAILABILITY OF THE EDUCATIONAL COMPONENT "INFORMATION TECHNOLOGY IN PROFESSIONAL ACTIVITIES"

**SECTION 4. MODERN COMPUTER TECHNOLOGIES IN TEACHING
MATHEMATICS AND COMPUTER SCIENCE. METHODS OF TEACHING
MATHEMATICS AND COMPUTER SCIENCE IN SECONDARY
EDUCATION**

Friday, May 21, 2021, Google Meet connection

Chair Oksana Klochko, Dr. Sc.

Secretaries Yaroslav Krupskyi, Ph. D., Olena Soia, Ph. D.

1. 10:00– **Olga Chemerys, Ph. D.**, Zhytomyr Ivan Franko State University, Zhytomyr, Ukraine
COMPUTER TECHNOLOGIES IN TEACHING LINEAR ALGEBRA
2. 10:15– **Liliia Myroniuk, Ph. D., Larysa Royko, Ph. D.**, Lesya Ukrainka Volyn National University, Lutsk, Ukraine
STUDY OF MULTIMEDIA TECHNOLOGIES BY STUDENTS OF PHILOLOGY IN THE COURSE «INFORMATION TECHNOLOGIES»
3. 10:30– **Olga Titova, Ph. D.**, Zaporizhia National University, Zaporizhia,

- 10:45 Ukraine
USE OF ONLINE SERVICES IN THE STUDY OF MATHEMATICAL ANALYSIS DURING DISTANCE LEARNING
4. 10:45– *Vira Ben’*, Lityn Secondary School of I-III degrees №1 of the Lityn settlement of the Vinnytsia region, Lityn, Ukraine
11:00
METHODICAL BASES OF TEACHING STUDENTS CREATIVE PROGRAMMING IN COMPUTER SCIENCE LESSONS IN A SPECIALIZED SCHOOL
5. 11:00– *Halyna Broslavska, Ph. D.*, Municipal Establishment “Kharkov Humanitarian-Pedagogical Academy” of Kharkov Regional Council, Kharkov, Ukraine
11:15
QUESTION IS ONE OF THE KNOWLEDGE CONTROL FACTORS IN MATHEMATICS OF EDUCATION APPLICANTS
6. 11:15– *Liubov Cherkaska, Ph. D., Oksana Moskalenko, Ph. D., Yurii Moskalenko, Ph. D., Olena Kovalenko*, Poltava V. G. Korolenko National Pedagogical University, Poltava, Ukraine
11:30
PSYCHOLOGICAL PREREQUISITES FOR THE ORGANIZATION OF TEACHING MATHEMATICS IN SECONDARY SCHOOL
7. 11:30– *Alina Klimishyna, Ph. D.*, General education school of I-III degrees № 1 of the village of Ivaniv, Ukraine
11:45
VIRTUAL INTERACTIVE BOARD AS A MEANS OF VISUALIZATION OF STUDY MATERIAL IN THE CONDITIONS OF DISTANCE LEARNING AT GENERAL SECONDARY EDUCATION INSTITUTIONS
8. 11:45– *Dmytro Mak*, IT Company «Dedey Digital», Vinnytsia, Ukraine
12:00
FUNCTIONAL MODELING OF THE PROCESS OF INFORMATICS LEARNING IN A PROFILE SCHOOL
9. 12:00– *Oleksandr Mamon, Ph. D.*, Poltava National Pedagogical University named after V.G. Korolenko, Poltava, Ukraine
12:15
CONDITIONS FOR EFFECTIVE USING OF MOBILE TECHNOLOGIES IN GENERAL SECONDARY EDUCATION INSTITUTIONS
10. 12:15– *Dmytro Pokryshen, Ph. D.*, Chernihiv Regional Institute of Postgraduate Pedagogical Education named after K. D. Ushinsky, Chernihiv, Ukraine
12:30
PROBLEMS OF NATURAL EDUCATION IN UKRAINE
11. 12:30– *Zoia Serdiuk, Ph. D., Liudmyla Kulyk, Ph. D.*, Bohdan Khmelnytsky National University of Cherkasy, Cherkasy, Ukraine
12:45
FEATURES OF BINARY LESSONS IN MATHEMATICS AND PHYSICS
12. 12:45– *Alina Skorolitnia*, Yuriy Fedkovych Chernivtsi National University, Chernivtsi, Ukraine
13:00
THE TEACHING OF IRRATIONAL EQUATIONS WITH ACTUALIZATION OF THE PROBLEM APPROACH
13. 13:00– *Lyubov Tyutyun, Ph. D.*, Vinnytsia Mykhailo Kotsiubynskyi State

- 13:15 Pedagogical University, Vinnytsia, Ukraine
LEARNING AND TEACHING ANALYTICAL AND
CONSTRUCTIVE GEOMETRY IN HIGHER EDUCATION WITH
GEOGEBRA
- Poster talks**
14. **Tetiana Dumanska, Ph. D.**, Kamianets-Podilskyi Ivan Ohienko
National University, Kamianets-Podilskyi, Ukraine
SOCIAL NETWORKS AS A TOOL OF DISTANCE LEARNING IN
MATHEMATICS IN HIGHER EDUCATION INSTITUTIONS
15. **Ludmyla Husak, Ph. D.**, Vinnytsia Institute of Trade and Economics
Kyiv National University of Trade and Economics, Vinnytsia, Ukraine
INFORMATION TECHNOLOGIES FOR THE CONTROL AND
ASSESSMENT OF KNOWLEDGE IN THE SYSTEM OF MOODLE
16. **Mykola Filipchuk, Ph. D., Olha Filipchuk, Ph. D.**, Yuriy Fedkovych
Chernivtsi National University, Chernivtsi, Ukraine
INTEGRATION OF DATA RENDERING IN TEX FORMAT INTO
THE GOOGLE FORMS ENVIRONMENT
17. **Yaroslav Krupskyi, Ph. D.**, Vinnytsia Mykhailo Kotsiubynskyi State
Pedagogical University, Vinnytsia, Ukraine
ADAPTATION MAPLE SYSTEM FOR STEP-BY-STEP
CONSTRUCTION OF SCHEDULE-FUNCTION FUNCTIONS
18. **Vera Petruk, Dr. Sc., Irina Kleopa**, Vinnytsia National Technical
University, Vinnytsia, Ukraine
USE OF THE REFERENCE SUMMARY OF LECTURES IN
HIGHER MATHEMATICS AT THE TECHNICAL UNIVERSITY
DURING THE PANDEMIC
19. **Mykola Yevtuch, Dr. Sc.**, Institute of Pedagogics, National Academy
of Educational Sciences of Ukraine, Kyiv, Ukraine; **Oksana Klochko,
Dr. Sc.**, Vinnytsia Mykhailo Kotsiubynskyi State Pedagogical
University, Vinnytsia, Ukraine; **Vasyl Fedorets, Ph. D.**, Communal
Higher Education Institute “Vinnytsia Academy of Continuous
Education”, Vinnytsia, Ukraine
USING VIRTUAL AND AUGMENTED REALITY TO
DEVELOPMENT OF THE HEALTH-PRESERVING
COMPETENCE OF A PHYSICAL EDUCATION TEACHER:
METHODOLOGICAL ASPECT
20. **Maksym Zhyhallo, Uliana Nykoniuk**, Lesya Ukrainka Volyn National
University, Lutsk, Ukraine
SEIDEL'S METHOD FOR SOLVING SYSTEMS OF LINEAR
ALGEBRAIC EQUATIONS
21. **Olena Kosovets, Ph. D., Inna Panianchuk, Undergraduate**, Vinnytsia
Mykhailo Kotsiubynskyi State Pedagogical University, Vinnytsia,
Ukraine
METHODS OF PROTECTION OF THE PUPILS FROM THREATS
OF SOCIAL ENGINEERING IN THE CONDITIONS OF

DISTANCE LEARNING

22. **Natalia Pratsiovyta**, Kyiv College of Trade and Economics of Kyiv National University of Trade and Economics, Kyiv, Ukraine
THE PROBLEM AS A MEANS OF DEVELOPING INTEREST IN MATHEMATICS AND FORMATION OF SCIENTIFIC CULTURE IN STUDENTS
23. **Olena Soia, Ph. D.**, Vinnytsia Mykhailo Kotsiubynskyi State Pedagogical University, Vinnytsia, Ukraine; **Olga Kolomiets**, General education school of I-III degrees № 1, Kalynivka, Ukraine
ORGANIZATION OF INDEPENDENT COGNITIVE ACTIVITY OF PUPILS IN MATHEMATICS BY THE METHOD OF PRACTICAL WORKS

15:00 – 15:30 **Closing of the Conference**

III International Scientific and Practical Internet Conference
«Mathematics and Informatics in Higher Education: Challenges of Modernity»

(dedicated to the memory of Professors
Pankov O. A. and Trokhymenko V. S.)

May 20-21, 2021, Vinnytsia, Ukraine

CONFERENCE PROGRAM

Compiled by Sergiy Bak