

PIDSTRYHACH INSTITUTE FOR APPLIED PROBLEMS OF
MECHANICS AND MATHEMATICS OF NAS OF UKRAINE
WESTERN SCIENTIFIC CENTER OF NAS OF UKRAINE
AND OF MES OF UKRAINE
INSTITUTE OF MATHEMATICS OF NAS OF UKRAINE
IVAN FRANKO NATIONAL UNIVERSITY OF LVIV
LVIV POLYTECHNIC NATIONAL UNIVERSITY



XII INTERNATIONAL SKOROBOHATKO MATHEMATICAL CONFERENCE

(September 23 – 25, 2025, Lviv, Ukraine)

PROGRAM

GENERAL INFORMATION

Section 1 Ordinary differential equations and integral equations

General Chair: Roman Maciuk Secretary: Roman Andriichuk

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Section 2 Partial differential equations

General Chairs: Ihor Medynskyi, Oksana Hentosh, Nataliya Protsakh, Volodymyr Pelykh

Secretary: Anton Kuz, Yurii Taistra

(page 8)

Section 3 Function theory, rational approximations, functional analysis, numerical methods

General Chairs: Iryna Chernega, Volodymyr Shchedryk, Khrystyna Kuchminska

Secretary: Roman Andriichuk, Anton Kuz, Yurii Taistra

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Section 4 Methods of the differential equation theory in problems of theoretical physics and mechanics

General Chairs: Mykhailo Andriychuk, Roman Plyatsko

Secretary: Roman Andriichuk, Yurii Taistra

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Poster Session (page 16)

Conference Timetable

Tuesday September 23	Wednesday September 24	Thursday September 25
9:30-10:15	10:00-12:00	10:00-13:00
opening	plenary	plenary
10:20-12:30	12:00-13:00	
plenary	poster	
14:00-18:30	14:00-18:30	14:00-16:00
sect. II, III, IV	sect. I, II, III	sect. II, III, IV

Tuesday, 9:30 – Opening of the Conference

Thursday, 16:10 – Conference Closure

The time in the program is Eastern European Summer Time (EEST, UTC+3).

Plenary and sectional sessions will be held in a mixed format — on site and on-line. To participate on-line on the plenary session and sectional sessions, use the same link:

[plenary and section session link](#)

For sectional session on-line participation use the button “Join breakout room” (or “More” → “Join breakout room”) to select the appropriate section. The poster session will be held only on-site. Paper format for poster presentations – A0 or A1.

PLENARY SESSION

Location: assembly hall, 1st floor

Tuesday, September 23

9:30–10:15 Opening of the Conference

10:20–10:50 *Oleksandra Antoniuk, Anatoly Kochubei*
EXISTENCE AND UNIQUENESS FOR p -ADIC POROUS MEDIUM EQUATION

10:50–11:00 Joint photo shoot

11:00–11:30 *Coffee break*

– *Chair* Roman Plyatsko – *Secretary* Anton Kuz –

11:30–12:00 *Vladimir Mikhalets, Aleksandr Murach*
ON AN EXTENDED HILBERT SCALE AND ITS APPLICATIONS

12:00–12:30 *Yuriy Povstenko*
FRACTIONAL NONLOCAL ELASTICITY

Wednesday, September 24

– *Chair* Roman Plyatsko – *Secretary* Anton Kuz –

10:00–10:30 *Mykola Bokalo, Taras Bokalo*
WELL-POSEDNESS OF PROBLEMS FOR NONLINEAR ELLIPTIC-PARABOLIC EQUATIONS IN UNBOUNDED DOMAINS

10:30–11:00 *Oleh Petruk, Taras Kuzyo*
SEMI-ANALYTICAL SOLUTION FOR THE MOMENTUM SPECTRUM OF PARTICLES ACCELERATED AT A PARTIALLY-RADIATIVE SHOCK

11:00–11:30 *Taras Mel'nyk*
CONVECTION-DOMINATED TRANSPORT PROBLEMS IN THIN GRAPH-LIKE NETWORKS

11:30–12:00 *Coffee break*

12:00–13:00 Poster session

Thursday, September 25

– Chair Dmytro Bodnar – Secretary Taras Kuzyo –

10:00–10:30 *Dmytro Bodnar*

ESTABLISHMENT AND DEVELOPMENT OF THE ANALYTICAL THEORY OF BRANCHED CONTINUED FRACTIONS

10:30–11:00 *Khrystyna Kuchminska*

A SIMPLE ALGORITHM FOR EXPANDING A FORMAL TRIPLE POWER SERIES INTO THE THREE-DIMENSIONAL CORRESPONDING ASSOCIATED CONTINUED FRACTION

11:00–11:30 *Takao Komatsu*

SOME EXPLICIT FORMS OF ALTERNATING Q-MULTIPLE T -VALUES

11:30–12:00 *Coffee break*

– Chair Dmytro Bodnar – Secretary Taras Kuzyo –

12:00–12:30 *Roman Plyatsko, Mykola Fenyk*

SOLUTIONS OF THE MATHISSON-PAPAPETROU EQUATIONS IN SCHWARZSCHILD'S METRIC FOR ULTRARELATIVISTIC PARTICLES

12:30–13:00 *Ivan Kyrchei*

QUATERNION GENERALIZED INVERSE MATRICES

SECTION 1. ORDINARY DIFFERENTIAL EQUATIONS AND INTEGRAL EQUATIONS

Wednesday, September 24

Location: auditorium 213, 2nd floor

– Chair Roman Matsyuk – Secretary Roman Andriichuk –

14:00–14:20 *Nataliia Ladzoryshyn, Vasyl' Petrychkovych, Halyna Zelisko*
A SYLVESTER-TYPE MATRIX EQUATION OVER SOME QUADRATIC RINGS

14:20–14:40 *Roman Pykhnivskyi*
ON THE CONSTRUCTING POLYNOMIAL LYAPUNOV FUNCTIONS USING GENETIC PROGRAMMING

14:40–15:00 *Roman Skurikhin*
DIFFERENTIAL EQUATION $ay' = by^m$ IN THE RING OF POWER SERIES WITH INTEGER COEFFICIENTS

15:00–15:20 *Mykola Heneralov*
IMPLICIT LINEAR DIFFERENCE EQUATIONS OVER ONE FINITE COMMUTATIVE RING OF ORDER p^2

15:20–15:40 *Vladimir Zolotarev*
INVERSE SCATTERING PROBLEM FOR THIRD ORDER DIFFERENTIAL OPERATORS WITH LOCAL POTENTIAL ON THE WHOLE AXIS

15:40–16:00 *Olena Atlasiuk, Volodymyr Mikhailets*
SOBOLEV SPACE ASPECTS OF DIFFERENTIAL EQUATIONS

16:00–16:30 *Coffee break*

– Chair Roman Matsyuk – Secretary Roman Andriichuk –

16:30–16:50 *Viktor Feruk*
WEAKLY NONLINEAR BOUNDARY-VALUE PROBLEM FOR THE SYSTEM OF FRACTIONAL DIFFERENTIAL EQUATIONS WITH TEMPERED CAPUTO DERIVATIVE

16:50–17:10 *Andrii Romaniv*
ON BEZOUT RINGS OF STABLE RANGE 1

17:10–17:30 *Nataliia Dzhaliuk, Vasyl' Petrychkovych*
POLYNOMIAL MATRICES, THEIR FACTORIZATIONS AND DIFFERENTIAL EQUATIONS IN INVESTIGATIONS OF LOPATYNS'KII, KAZIMIRS'KII AND MODERN SCIENTISTS

17:30–17:50 *Oleksandr Pokutnyi, Yulia Zahorulko*

BOUNDARY VALUE PROBLEMS FOR LINEAR AND NONLINEAR DIS-
CRETE SYSTEMS

SECTION 2. PARTIAL DIFFERENTIAL EQUATIONS

Tuesday, September 23

Location: assembly hall, 1st floor

– Chair Ihor Medynsky – Secretary Anton Kuz –

14:00–14:20 *Iryna Kmit, Viktor Tkachenko*

GLOBAL BOUNDED SOLUTIONS TO QUASILINEAR FIRST ORDER HYPERBOLIC SYSTEMS

14:20–14:40 *Mariia Serdiuk*

FUNDAMENTAL SOLUTION FOR A NEW CLASS OF NON-ARCHIMEDEAN PSEUDO-DIFFERENTIAL EQUATIONS

14:40–15:00 *Vitaly Dron, Ihor Medynskyi*

ON FUNDAMENTAL SOLUTION AND CORRECT SOLVABILITY OF THE CAUCHY PROBLEM FOR DEGENERATED PARABOLIC EQUATIONS OF KOLMOGOROV TYPE OF ARBITRARY ORDER WITH BLOCK STRUCTURE

15:00–15:20 *Sergiy Gefter, Aleksey Piven'*

COPOLYNOMIALS OVER A COMMUTATIVE RING AND THEIR APPLICATIONS TO NONLINEAR PARTIAL DIFFERENTIAL EQUATIONS

15:20–15:40 *Oleksandr Hnatiuk, Volodymyr Kyrylych, Olga Peliushkevych*
DEGENERATE PROBLEMS FOR COUNTABLE 1D HYPERBOLIC SYSTEMS

15:40–16:00 *Yan Rybalko*

GLOBAL WELL-POSEDNESS OF THE TWO-COMPONENT NOVIKOV SYSTEM

16:00–16:30 *Coffee break*

– Chair Ihor Medynsky – Secretary Anton Kuz –

16:30–16:50 *Larissa Fardigola, Kateryna Khalina*

CONTROLLABILITY AND APPROXIMATE CONTROLLABILITY OF THE HEAT EQUATION ON A HALF-PLANE

16:50–17:10 *Dmytro Bobylyev*

NUMERICAL HOMOGENIZATION AND COMPUTATIONAL EXPERIMENTS FOR MULTISCALE POROUS MEDIA MODELS

17:10–17:30 *Nadiia Huzyk*

COEFFICIENT INVERSE PROBLEMS FOR DEGENERATE PARABOLIC EQUATION

Wednesday, September 24

Location: assembly hall, 1st floor

– *Chair* Oksana Hentosh – *Secretary* Yurii Taistra –

14:00–14:20 *Oksana Hentosh*

RATIONALLY FACTORIZED LAX TYPE FLOWS RELATED WITH THE CENTRALLY EXTENDED LIE ALGEBRA OF FRACTIONAL INTEGRO-DIFFERENTIAL OPERATORS AND INTEGRABLE BENNEY TYPE HYDRODYNAMIC SYSTEMS

14:20–14:40 *Ivan Savka, Mykhailo Mytrofanov*

TIME-PERIODIC HEAT CONDUCTION PROBLEM WITH ROBIN BOUNDARY CONDITIONS IN A MULTILAYERED DOMAIN

14:40–15:00 *Oleksandr Diachenko, Valerii Los*

ON SOME MATRIX PARABOLIC PROBLEMS IN SOBOLEV SPACES OF GENERALIZED SMOOTHNESS

15:00–15:20 *Volodymyr Fedorchuk*

ON SYMMETRY REDUCTION OF THE $(1 + 3)$ -DIMENSIONAL MONGE-AMPERE EQUATION TO ALGEBRAIC EQUATIONS

15:20–15:40 *Halyna Pasichnyk, Ihor Medynskyi*

ON THE CLASSICAL FUNDAMENTAL SOLUTION OF THE CAUCHY PROBLEM FOR A DISSIPATIVE ULTRAPARABOLIC EQUATION WITH TWO GROUPS OF DEGENERATE VARIABLES AND WITH COEFFICIENTS INDEPENDENT OF THEM

15:40–16:00 *Iryna Karpenko, Dmitry Shepelsky*

PERIODIC PROBLEM FOR THE CAMASSA-HOLM EQUATION

16:00–16:30 *Coffee break*

– *Chair* Nataliya Protsakh – *Secretary* Yurii Taistra –

16:30–16:50 *Dmitry Shepelsky*

NONLINEAR FOURIER SPECTRUM CHARACTERIZATION OF TIME-LIMITED SIGNALS

16:50–17:10 *Nataliia Protsakh, Halyna Ivasiuk, Tonia Fratavchan*
ON DETERMINATION OF RIGHT-HAND SIDE FUNCTION OF THIRD
ORDER WAVE EQUATION

17:10–17:30 *Oleksandra Lokaziuk*
SYMMETRIES AND TRANSFORMATION PROPERTIES OF LINEAR SYS-
TEMS OF SECOND-ORDER ORDINARY DIFFERENTIAL EQUATIONS

17:30–17:50 *Oleksandra Vinnichenko*
SYMMETRY ASPECTS OF INTEGRABLE NIZHNIK MODELS

Thursday, September 25

Location: assembly hall, 1st floor

– Chair Volodymyr Pelykh – Secretary Anton Kuz –

14:00–14:20 *Hennadii Hrabchak*
ASYMPTOTICS OF THE SPECTRUM OF SCHRÖDINGER OPERATORS
WITH SINGULAR POTENTIALS AND SINGULAR WEIGHT FUNCTIONS

14:20–14:40 *Petro Boyko, Halyna Lopushanska, Petro Pukach*
ON INITIAL INVERSE PROBLEMS WITH INTEGRAL CONDITIONS

14:40–15:00 *Anton Kuz, Mykhailo Symotiuk*
FACTORIZED EVOLUTION EQUATIONS WITH EXPONENTIAL INTE-
GRAL CONSTRAINTS

15:00–15:20 *Volodymyr Ilkiv, Nataliia Strap, Iryna Volianska*
SOLVABILITY OF BOUNDARY VALUE TWOPOINT PROBLEM FOR A
DIFFERENTIAL EQUATION WITH PARAMETER IN A REFINED SOBOLEV
SCALE

15:20–15:40 *Sofia Repetylo*
DIRICHLET-NEUMANN PROBLEM FOR A HIGH-ORDER PARTIAL DIF-
FERENTIAL EQUATION IN AN UNBOUNDED LAYER

15:40–16:00 *Petro Kaleniuk, Zinovii Nytrebych, Mykhailo Symotiuk*
INTEGRAL PROBLEM FOR A SYSTEM OF PARTIAL DIFFERENTIAL
EQUATION IN AN UNBOUNDED LAYER

**SECTION 3. FUNCTION THEORY,
RATIONAL APPROXIMATIONS,
FUNCTIONAL ANALYSIS,
NUMERICAL METHODS**

Tuesday, September 23

Location: auditorium 709, 7th floor

– Chair Iryna Chernega – Secretary Yuriy Taistra –

14:00–14:20 *Ihor Borachok, Roman Chapko*

MFS-BASED ITERATIVE METHOD FOR A NON-LINEAR INVERSE HEAT CONDUCTION PROBLEM

14:20–14:40 *Iryna Chernega*

SUPERSYMMETRIC ANALYTIC FUNCTIONS OF INFINITELY MANY VARIABLES

14:40–15:00 *Pavlo Malashnyak*

WELL-POSEDNESS OF THE VARIATIONAL FORMULATION OF THE BOUNDARY VALUE PROBLEM OF CYLINDRICAL SHELL STATICS VIA THE H-ADAPTIVE FINITE ELEMENT METHOD

15:00–15:20 *Zoriana Novosad*

DYNAMICAL SYSTEMS ASSOCIATED WITH THE LOGISTIC MAP

15:20–15:40 *Vitaliy Bihun, Daryna Dolishniak, Andriy Zagorodnyuk*

ZEROS OF SUBSYMMETRIC POLYNOMIALS ON ℓ_p

15:40–16:00 *Volodymyr Sharan*

ON GENERALIZATIONS OF THEOREMS OF FUCHS AND KAHANE

16:00–16:30 *Coffee break*

– Chair Iryna Chernega – Secretary Yuriy Taistra –

16:30–16:50 *Yevhen Bryhidyr, Mykhailo Yadzhak*

APPLICATION OF THE PYRAMIDS METHOD FOR SOLVING THE PROBLEM OF DIGITAL DATA FILTERING

16:50–17:10 *Rostyslav Vdovych*

ON THE IMPLEMENTATION OF SOME PARALLEL FILTERING ALGORITHMS ON COMPUTERS WITH SHARED AND DISTRIBUTED MEMORY

17:10–17:30 *Dmytro Seliutin*

FIXED POINT THEOREM IN AN ARBITRARY TOPOLOGICAL VECTOR SPACE

17:30–17:50 *Vira Lozynska*

WEYL OPERATOR CALCULUS FOR EXPONENTIAL TYPE DISTRIBUTIONS

17:50–18:10 *Viktoriia Kravtsiv, Pavlo Dolishniak, Rostyslav Stakhiv*

WARING-GIRARD FORMULAS FOR BLOCK-SYMMETRIC POLYNOMIALS

Wednesday, September 24

Location: auditorium 709, 7th floor

– Chair Volodymyr Shchedryk – Secretary Anton Kuz –

14:00–14:20 *Igor Cherevko, Oleksandr Krasnokutskyi, Nazarii Malyshev*

APPROXIMATION SCHEMES FOR DIFFERENTIAL-DIFFERENCE EQUATIONS AND ALGORITHMS OF THEIR APPLICATIONS

14:20–14:40 *Vitalii Stelmashchuk, Roman Petryshyn*

DIMENSIONLESS VARIABLES IN FINITE ELEMENT ANALYSIS OF LORD-SHULMAN THERMOPIEZOELECTRICITY TIME-DEPENDENT PROBLEM

14:40–15:00 *Maksym Kyselov*

ERROR ESTIMATES FOR TRUNCATION LEGENDRE METHOD IN NUMERICAL DIFFERENTIATION

15:00–15:20 *Romanna Malets*

NUMERICAL MODELLING OF STEADY-STATE HARMONIC OSCILLATIONS IN THERMOVISCOELASTIC THIN-WALLED SHELLS

15:20–15:40 *Svyatoslav Lavryk*

ON THE INTEGRAL EQUATIONS APPROACH FOR THE NUMERICAL SOLUTION OF THE 3D PARABOLIC LATERAL CAUCHY PROBLEM

15:40–16:00 *Oksana Palianytsia*

ON THE NUMERICAL SOLUTION OF THE PARABOLIC VOLTERRA PIDE WITH WEAK SINGULAR KERNELS

16:00–16:30 *Coffee break*

– Chair Volodymyr Shchedryk – Secretary Anton Kuz –

16:30–16:50 *Rostyslav Ponomarov, Taras Vasylyshyn*

ALGEBRAS OF SYMMETRIC POLYNOMIALS ON CARTESIAN PRODUCTS OF REAL AND COMPLEX BANACH SPACES OF LEBESGUE INTEGRABLE FUNCTIONS

16:50–17:10 *Svitlana Vasylyshyn*

ON TOPOLOGICAL ISOMORPHISM OF SOME COUNTABLY GENERATED ALGEBRAS OF ENTIRE FUNCTIONS ON BANACH SPACES

17:10–17:30 *Bohdan Shavarovskii*

REDUCTION OF A MATRIX ORIENTED BY CHARACTERISTIC ROOTS TO A FORM WITH GIVEN CHARACTERISTICS

17:30–17:50 *Ruslan Khats'*

COMPLETENESS OF THE SYSTEMS OF BESSEL FUNCTIONS OF INDEX $-m - 1/2$ WITH $m \in \mathbb{N}$

Thursday, September 25

Location: auditorium 709, 7th floor

– Chair Khrystyna Kuchminska – Secretary Roman Andriichuk –

14:00–14:20 *Nataliya Hoyenko*

PARABOLIC CONVERGENCE REGION OF SOME EXPANSION INTO BRANCHED CONTINUED FRACTION FOR APPELL HYPERGEOMETRIC FUNCTION $F_4(1, 2; 2, 2, z_1, z_2)$

14:20–14:40 *Iryna Bilanyk, Olha Voznyak*

SOME CONVERGENCE THEOREMS FOR BRANCHED CONTINUED FRACTIONS OF THE SPECIAL FORM

14:40–15:00 *Yuliia Myslo, Mykhaylo Pahirya*

THIELE'S INTERPOLATION. CASES OF DEGENERACY OF THE FRACTION

15:00–15:20 *Olena Shavala*

ON FUNDAMENTAL SYSTEMS OF SOLUTIONS OF THE EQUATION $f'' + Af = 0$ ACCORDING TO GIVEN SEQUENCES

15:20–15:40 *Anastasiya Nedashkovska*

SOLVING A SYSTEM OF TWO POLYNOMIAL EQUATIONS VIA CONTINUED FRACTIONS

15:40–16:00 *Anna Veselovska*

SIGMA-DELTA QUANTIZATION AND DIGITAL HALFTONING OF IMAGES

SECTION 4. METHODS OF THE DIFFERENTIAL EQUATION THEORY IN PROBLEMS OF THEORETICAL PHYSICS AND MECHANICS

Tuesday, September 23

Location: institute library, 9th floor

– *Chair* Mykhailo Andriychuk – *Secretary* Roman Andriychuk –

14:00–14:20 *Borys Protsiuk, Volodymyr Shuftiak*

UNSTEADY HEAT CONDUCTION PROBLEM FOR A PIECEWISE-HOMOGENEOUS THERMOSENSITIVE MEDIUM

14:20–14:40 *Yaroslav Pyanylo*

APPLICATION OF CLASSICAL ORTHOGONAL POLYNOMIALS IN FRACTIONAL CALCULUS

14:40–15:00 *Roman Andriichuk, Taras Kuzyo, Viktor Mischenko*

DETERMINATION OF MECHANICAL PARAMETERS OF A DISC-SIZED NON-CONTRAST INCLUSION OF VARIABLE THICKNESS IN AN ELASTIC MATRIX FROM THE AMPLITUDES OF SCATTERED TORSION WAVES

15:00–15:20 *Ihor Zhbadynskyi*

BIEM FOR ELASTIC PROBLEM OF TIME-HARMONIC LOADING OF ONE-PERIODIC LATTICE WITH PAIRED COMPLIANT DISK-SHAPED INCLUSIONS

15:20–15:40 *Roman Kushnir, Borys Protsiuk, Yuriy Protsyuk*

METHODOLOGY FOR DETERMINING THE QUASI-STATIC THERMOELASTIC STATE OF A MULTILAYER PLATE UNDER NONLINEAR THERMAL CONDITIONS

15:40–16:00 *Viktor Mykhas'kiv*

ON SOLUTION OF INTEGRO-DIFFERENTIAL EQUATION DESCRIBING SURFACE TENSION IN DYNAMIC CRACK THEORY

16:00–16:30 *Coffee break*

– *Chair* Mykhailo Andriychuk – *Secretary* Roman Andriychuk –

16:30–16:50 *Mykhailo Marchuk, Volodymyr Bodnar, Vira Pakosh*

RESOLVING DIFFERENTIAL EQUATION FOR FLUTTER OF A PLATE-STRIP COMPLIANT TO TRANSVERSE SHEAR

16:50–17:10 *Mykola Makhorkin*

STRESS FIELD SINGULARITY IN AN ANISOTROPIC COMPOSITE WEDGE
SUBJECTED TO ANTIPLANE DEFORMATION

17:10–17:30 *Taras Holubets, Volodymyr Yuzevych*

THE POSSIBILITY OF RESOLVING OF INVERSE PROBLEM IN THE
ONE-DIMENSIONAL CASE BASED ON THE ONE COMPONENT LIN-
EAR DIFFUSION EQUATION BY EXAMPLE OF CONCRETE COMPOS-
ITE CERAMIC

17:30–17:50 *Victor Revenko*

CONSTRUCTION OF PHYSICALLY GROUNDED PARTIAL SOLUTIONS
OF THE SYSTEM OF NAVIER EQUATIONS

Thursday, September 25

Location: auditorium 213, 2nd floor

– Chair Roman Plyatsko – Secretary Yurii Taistra –

14:00–14:20 *Mykhaylo Andriychuk*

ON THE INTEGRAL EQUATION OF THE ANTENNA SYNTHESIS PRO-
BLEM WITH RESTRICTION

14:20–14:40 *Taras Kuzyo*

SIMULATING TURBULENCE WITH SYNTHETIC NOISE

14:40–15:00 *Roman Matsyuk*

VARIATIONAL EXTENSION & VARIATIONAL CHECK IN TWO EXAM-
PLES

15:00–15:20 *Yurii Taistra, Volodymyr Pelykh*

COMPATIBILITY OF EQUATIONS WHICH DESCRIBE EINSTEIN-MAXWELL
PETROV TYPE II SPACE-TIMES IN THE CASE OF ONE-WAY NULL
ELECTROMAGNETIC FIELD

Thursday, September 25

16:10 CLOSING OF THE CONFERENCE

Zoom connection is the same as for the Plenary Session

POSTER SESSION

Wednesday, September 24

Location: institute hall, 1st floor

12:00–13:00

Taras Goy

CERTAIN COMBINATORIAL IDENTITIES INVOLVING MERSENNE NUMBERS AND MULTINOMIAL COEFFICIENTS

Vyacheslav Ryabichev, Nataliya Mayko

THE CAYLEY TRANSFORM METHOD FOR AN ABSTRACT EVOLUTION EQUATION WITH A FRACTIONAL DERIVATIVE

Ruslan Khats', Valentyn Yarmoshyk

TWO-TERM ASYMPTOTICS OF THE LOGARITHMIC DERIVATIVE OF ENTIRE FUNCTIONS WITH IMPROVED DISTRIBUTION OF ZEROS

Roman Rabosh

ASYMPTOTIC MODEL OF DYNAMIC PROCESSES IN A PIEZOELECTROMAGNETIC MATRIX WITH A THIN METAL LAYER

Kyrylo Loboda, Tetiana Khodanenko

ON THE SOLUTION OF THE SYSTEM OF PDE RELATED TO A PIEZOELECTRIC BIMATERIAL WITH AN INTERFACE ELECTRODE

Maksym Bebiya

ON LOCAL ASYMPTOTIC STABILIZATION OF A CERTAIN CLASS OF INHERENTLY NONLINEAR SYSTEMS WITH UNKNOWN PARAMETERS

Ivanna Bondar

WEAKLY PERTURBED BOUNDARY VALUE PROBLEMS FOR SYSTEMS OF INTEGRO-DIFFERENTIAL EQUATIONS IN THE GENERAL CASE. AN EQUIVALENT SYSTEM OF ALGEBRAIC EQUATIONS

Halyna Tuluchenko

ANALYSIS AND PATCH TEST VERIFICATION OF A NON-CONFORMING QUADRATIC BASIS FOR THE OCTAHEDRAL FINITE ELEMENT

Vasyl' Davydovych

CONDITIONAL SYMMETRIES AND EXACT SOLUTIONS OF A SIMPLIFIED SHIGESADA–KAWASAKI–TERAMOTO MODEL

Grzegorz Kuduk

PROBLEM WITH INTEGRAL CONDITION FOR NONHOMOGENEOUS
PARTIAL DIFFERENTIAL EQUATIONS OF THIRD ORDER

Oleh Buhrii, Oksana Kholiyavka, Ihor Kutsevol

INITIAL-BOUNDARY VALUE PROBLEM FOR SYSTEM OF EQUATIONS
WITH SHIFT

Yuliia Maksymiv, Valerii Matus, Vasyl Porochovskyj

INTERACTION OF A PERIODIC SYSTEM OF THIN NON-CONTRAST
INCLUSIONS WITH A HALF-SPACE, THE MOTION OF WHICH IS DE-
SCRIBED BY THE HELMHOLTZ EQUATION