



***Kyrgyzstan-Turkey-Ukrainian  
International Scientific Conference  
“Mathematical Analysis, Differential Equations and  
Applications”***

***M A D E A - 9***

**P R O G R A M**

***Bishkek  
June 21 - 25, 2021***

***Kyrgyzstan-Turkey-Ukrainian  
International Scientific Conference  
“Mathematical Analysis, Differential Equations and their  
Applications”***

***M A D E A - 9***

***Organized by:***

***Kyrgyz-Turkish Manas University***

***(Bishkek, Kyrgyz Republic)***

***Atatürk University***

***(Erzurum, Turkey)***

***Mersin University***

***(Mersin, Turkey)***

***Institute of Mathematics of NAS of Ukraine***

***(Kyiv, Ukraine)***

***Taras Shevchenko National University of Kyiv***

***(Kyiv, Ukraine)***

***Bishkek***

***June 21 - 25, 2021***

# CONFERENCE SCIENTIFIC PROGRAM

## SECTIONS, PRESENTATION LINKS

**Plenary lectures: (Hall A. Links:**

**day 1 (21.06.2021) -**

<https://zoom.us/j/97907216011?pwd=ZWd2cE54RjNhaU01RVYvTEtDT1hMZz09>

**day 2 (22.06.2021) -** <https://meet.google.com/grq-wpfu-jxx>

**day 3 (23.06.2021) -** <https://meet.google.com/dnv-gegt-xkf>

**Section 1:** Approximation and Interpolation theory, Summability theory (**Hall B.**

**Link:** <https://meet.google.com/uo-iaak-yei>)

**Section 2:** Functional-differential and stochastic equations, Partial differential equations, Qualitative and asymptotic methods in the theory of differential equations, Mathematical and Computer Modelling, Applied analysis, Extremal problems (**Hall C, Link:**

<https://meet.google.com/ygw-wgbo-ved>)

**Section 3:** Functional and Harmonic analysis, Functions of real and complex variables, Integral transformations, Geometry, Algebra and Topology, History and Teaching of Mathematics, Informatics (**Hall D. Link:**

<https://meet.google.com/xkp-ofna-bkx>)

**PROGRAM OF TALKS**  
**(Kyrgyz Time: CMT+6 )**  
**Monday, June 21<sup>th</sup>, 2021**

<b>KG Time, GMT+6</b>	<b>Hall A</b> <a href="https://zoom.us/j/97907216011?pwd=ZWd2cE54RjNhaU01RVYyVTEtDT1hMzZ09">https://zoom.us/j/97907216011?pwd=ZWd2cE54RjNhaU01RVYyVTEtDT1hMzZ09</a>
<b>14.00 - 14.40</b>	Opening of the Conference
	<b>Chairmen:</b> <i>Ekrem Savaş</i>
<b>14.40 - 15.10</b>	<b>Plenary lecture 1: <i>Igor Shevchuk</i></b> <i>An addendum to Jackson inequality</i>
<b>15.10 - 15.20</b>	Coffee break
	<b>Chairman:</b> <i>Igor Shevchuk</i>
<b>15.20 - 15.50</b>	<b>Plenary lecture 2: <i>Hans-Peter Blatt</i></b> <i>Maximal Convergence and Interpolation on unconnected sets</i>
<b>15.50 - 16.20</b>	<b>Plenary lecture 3: <i>Anatoly Golberg</i></b> <i>Mapping theory from metric point of view</i>
<b>16.20 - 16.30</b>	Coffee break
	<b>Chairman:</b> <i>Abdullah Kopuzlu</i>
<b>16.30 - 17.00</b>	<b>Plenary lecture 4: <i>Arif Salimov</i></b> <i>Lift problems of differential geometric objects</i>
<b>17.00 - 17.30</b>	<b>Plenary lecture 5: <i>Bilal Bilalov</i></b> <i>On the Fredholmness of the Dirichlet problem for a second-order elliptic equation in grand-Sobolev spaces</i>
<b>17.30 - 17.40</b>	Coffee break
	<b>Chairman:</b> <i>Hans-Peter Blatt</i>
<b>17.40 - 18.10</b>	<b>Plenary lecture 6: <i>Oleksandr Boichuk</i></b> <i>Minimizing of the functionals on Hopfield networks</i>
<b>18.10 - 18.40</b>	<b>Plenary lecture 7: <i>Kirill Kopotun</i></b> <i>Polynomial Approximation with Jacobi and other doubling weights</i>
<b>18.40 - 19.10</b>	<b>Plenary lecture 8: <i>Feng Dai</i></b> <i>Entropy numbers and Marcinkiewicz-type discretization</i>
<b>19.10 - 20.00</b>	Discussion

Tuesday, June 22<sup>th</sup>, 2021  
Plenary Session

<b>KG Time, GMT+6</b>	<b>Hall A</b> <a href="https://meet.google.com/grq-wpfu-jxx">https://meet.google.com/grq-wpfu-jxx</a>
	<b>Chairman:</b> <i>Anatoly Golberg</i>
<b>11.00 - 11.30</b>	<b>Plenary lecture 9: Nazim Mahmudov</b> <i>Multi-delayed perturbation of Mittag-Leffler type functions</i>
<b>11.30 -12.00</b>	<b>Plenary lecture 10: Ekrem SAVAŞ</b> <i>Deferred almost sequences spaces</i>
<b>12.00 -12.10</b>	Coffee break
	<b>Chairman:</b> <i>Nazim Mahmudov</i>
<b>12.10 - 12.40</b>	<b>Plenary lecture 11: Ljubisa Kocinac</b> <i>Combinatorics of double sequences</i>
<b>12.40 - 13.10</b>	<b>Plenary lecture 12: Ekrem Kadioğlu</b> <i>Historical development of univalent functions summary</i>
<b>13.10 - 14.00</b>	Lunch

Tuesday, June 22<sup>th</sup>, 2021  
Parallel Sessions

	<b>Hall B: Section 1</b> <a href="https://meet.google.com/uoe-iaak-yei">https://meet.google.com/uoe-iaak-yei</a>	<b>Hall C: Section 2</b> <a href="https://meet.google.com/ygw-wgbo-ved">https://meet.google.com/ygw-wgbo-ved</a>	<b>Hall D: Section 3</b> <a href="https://meet.google.com/xkp-ofna-bkx">https://meet.google.com/xkp-ofna-bkx</a> .
<b>KG</b>	<b>Chairman:</b> Stanislav Chaichenko	<b>Chairman:</b> Sergii Chuiko	<b>Chairman:</b> Tuncay Tunç

14.00-14.20	<p><b>Anatolii Serdyuk</b> <b>Andrii Shidlich</b></p> <p>Jackson type inequalities in the Besicovitch-Stepanets spaces</p>	<p><b>Oleksandr Stanzhytskyi</b> <b>Roza Uteshova</b> <b>Meirambek Mukash</b></p> <p>The averaging method for boundary value problems for differential equations with non-fixed impulsive moments</p>	<p><b>Olga Dyuzhenkova</b> <b>Mykola Dudkin</b></p> <p>Singularly nonsymmetric finite rank perturbations H-2-class of self-adjoint operators</p>
14.20-14.40	<p><b>Fahreddin Abdullayev</b> <b>Viktor Savchuk</b></p> <p>Fejer-type positive operator based on Takenaka--Malmquist system on unit circle</p>	<p><b>Snezhana Hristova</b></p> <p>Ulam type stability for fractional differential equation with generalized proportional fractional derivatives</p>	<p><b>Viktoriia Bilet</b> <b>Oleksiy Dovgoshey</b></p> <p>Metric spaces with finite asymptotic clusters of pretangent spaces</p>
14.40-15.00	<p><b>Sergii Vakarchuk</b> <b>Michailo Vakarchuk</b></p> <p>On the widths of classes of complex variable analytic functions</p>	<p><b>Tzanko Donchev</b> <b>Alina I. Lazu</b></p> <p>Nonlinear evolution inclusions with time lag</p>	<p><b>Dilip Kumar</b></p> <p>Some Properties of Fractional Boas Transforms of Wavelets</p>
15.00-15.20	<p><b>Roman Dmytryshyn</b></p> <p>Approximation of function of several variables by multidimensional A-fractions with independent variables</p>	<p><b>Grzegorz Kuduk</b> <b>Michael Symotyuk</b></p> <p>Nonlocal problem with integral conditions for homogeneous system of partial differential equations of second order</p>	<p><b>Leena Kathuria</b> <b>Shashank Goel</b> <b>Nikhil Khanna</b></p> <p>Some Results on Fourier--Boas-Like Wavelets</p>

15.20-15.40	<p><b>Julia Myslo, Mykhaylo Pahiry</b></p> <p>An estimate of the remainder of the interpolation continued C–fraction</p>	<p><b>Olha Karpenko Victoria Mogylova Tetiana Dobrodzii</b></p> <p>About the relation between the existence of bounded solutions of the differential equations and equations on time scales</p>	<p><b>Nitin Sharma</b></p> <p>Woven Frames in quaternionic Hilbert spaces</p>
15.40-16.00	<i>Coffee break</i>		
<b>KG Time,</b>	<b>Chairman: Roman Dmytryshyn</b>	<b>Chairman: Snezhana Hristova</b>	<b>Chairman: Mykola Dudkin</b>
16.00-16.20	<p><b>Fahreddin Abdullayev Stanislav Chaichenko Andrii Shidlich</b></p> <p>Jackson type inequalities in the Musielak-Orlicz type spaces</p>	<p><b>Sergii Chuiko Maryna Dzyuba</b></p> <p>Boundary value problem for a system of matrix differential-algebraic equations with pulse perturbation</p>	<p><b>Muhammet Kamali</b></p> <p>Belong to a subclass of analytic functions Fekete-Szego inequality</p>
16.20-16.40	<p><b>Nataliia Parfinovych</b></p> <p>The best non-symmetric approximation of classes of differentiable functions by splines</p>	<p><b>Sergii Chuiko Yaroslav Kalinichenko</b></p> <p>Linear Noetherian boundary-value problem for a system of linear difference-algebraic equations</p>	<p><b>Tuncay Tunç Erdem Alper</b></p> <p>On statistically convergence theorems for Lebesgue integrable functions</p>

16.40-17.00	<p><b>German Dzyubenko</b> <b>Victoria Voloshyna</b></p> <p>Degrees of coconvex approximation of periodic functions</p>	<p><b>Sergii Chuiko</b> <b>Olga Nesmelova</b></p> <p>Seminonlinear boundary-value problems for degenerate differential-algebraic systems</p>	<p><b>Tuncay Tunç</b> <b>Burcu Fedakar</b></p> <p>On Stancu generalization of Szasz-Mirakyan-Bernstein operators</p>
17.00-17.20	<p><b>İdris Can Ellik</b> <b>Uğur DEĞER</b></p> <p>An approximation problem in the weighted Orlicz space</p>	<p><b>Andriy Stanzhytskyi</b></p> <p>The long time behavior of nonlinear stochastic functional-differential equations of neutral type in Hilbert spaces with non-Lipschitz nonlinearities</p>	<p><b>Elena Afanas'eva</b></p> <p>Absolute continuity of quasisymmetric mappings in metric spaces</p>
17.20-17.40	<p><b>Anatolii Serdyuk</b> <b>Igor Sokolenko</b></p> <p>On asymptotic equations for the widths of classes of the generalized Poisson integrals</p>	<p><b>Naiyer Mohammadi</b> <b>Janbaran, Ercan Celik</b></p> <p>Using fuzzy-rough subset evaluation for feature selection and naive bayes to classify the Parkinson's disease</p>	<p><b>Sertac Goktas</b> <b>Emrah Yilmaz</b> <b>Ayşe Cigdem Yar</b></p> <p>Some properties of multiplicative Hermite equation</p>
17.40-18.00	<p><b>Anatoly Serdyuk</b> <b>Tetiana Stepaniuk</b></p> <p>Uniform approximations by Fourier sums on classes of <math>(\psi, \beta)</math>-differentiable functions</p>	<p><b>Elmira Abdylidaeva</b></p> <p>On solvability of the synthesis problem of optimal control of systems with distributed parameters</p>	<p><b>Sabina Sadigova</b></p> <p>On Riemann problem in weighted Smirnov classes with power weight</p>



<p style="text-align: center;"><b>18.00-18.20</b></p>	<p><b>Olga Rovenska Viktor Savchuk</b></p> <p>An extremal problem for Cesaro means on some class of holomorphic functions</p>	<p><b>Layan El Hajj</b></p> <p>A Convexity Problem for a Semi-Linear PDE</p>	<p><b>Махабат Аманалиева</b></p> <p>Forecasting the development of tourist regional infrastructures</p>
<p style="text-align: center;"><b>18.20-18.40</b></p>	<p><b>Cevahir Doğanay Gün</b></p> <p>Bernstein-Walsh type estimations for the derivatives of arbitrary algebraic polynomials</p>	<p><b>Burak Oğul Dağıstan Şimşek</b></p> <p>Dynamical behavior of rational difference equation <math>x_{n+1} = \frac{x_{n-4}}{\pm 1 \pm x_n x_{n-1} x_{n-2} x_{n-3} x_{n-4}}</math></p>	<p><b>Tugçe Kunduracı, Ceren Sultan Elmalı and Tamer Uğur</b></p> <p>Di-topologies Associated with Texture Graphs</p>

**Wednesday, June 23<sup>th</sup>, 2021**  
**Plenary Session**

<b>KG Time, GMT+6</b>	<b>Hall A</b> <a href="https://meet.google.com/grq-wpfu-jxx">https://meet.google.com/grq-wpfu-jxx</a>
	<b>Chairman: Kocinac Ljubisa Kocinac</b>
<b>11.00 - 11.30</b>	<b>Plenary lecture 13: Asylbek Chekeev</b> <i>On new results in category of uniform spaces</i>
<b>11.30 -12.00</b>	<b>Plenary lecture 14: Sergey Chuiko</b> <i>Constructive methods of investigation of the linear boundary-value problems for degenerate differential-algebraic systems</i>
<b>11.30 -12.00</b>	<b>Plenary lecture 15: Fahreddin Abdullayev</b> <i>Bernstein - Markov - Nikol'skii type Inequalities for derivatives of algebraic polynomials</i>
<b>12.00 - 14.00</b>	Lunch

**Wednesday, June 23<sup>th</sup>, 2021**  
**Parallel Sessions**

	<b>Hall B: Section 1</b> <a href="https://meet.google.com/uoe-iaak-yei">https://meet.google.com/uoe-iaak-yei</a>	<b>Hall C: Section 2</b> <a href="https://meet.google.com/ygw-wgbo-ved">https://meet.google.com/ygw-wgbo-ved</a>	<b>Hall D: Section 3</b> <a href="https://meet.google.com/xkp-ofna-bkx">https://meet.google.com/xkp-ofna-bkx</a>
<b>KG</b>	<b>Chairman: Andrii Shidlich</b>	<b>Chairman: Oleksandr Stanzhytskyi</b>	<b>Chairman: Sabina Sadigova</b>
<b>14.00-14.20</b>	<b>Kateryna Pozharska</b> Sampling recovery in the reproducing kernel Hilbert space setting	<b>Valery Gaiko</b> Limit cycles of multi-parameter polynomial dynamical systems	<b>Asylbek Chekeev Ainaz Kasymova Elnura Zhusupbekova</b> On m-reflective uniform spaces and their embeddings in topological groups

14.20-14.40	<p><b>Mohd Qasim</b></p> <p>Approximation by modified Lupas-stancu operators based on <math>(p;q)</math>-integers</p>	<p><b>Anarkul Urdaletova Syrgak Kydyraliev</b></p> <p>Solution of some systems of linear ordinary differential equations with variable coefficients</p>	<p><b>Asylbek Chekeev Tumar Kasymova</b></p> <p>On Dieudonne <math>\tau</math> –completeness of a space of compact subsets</p>
14.40-15.00	<p><b>Anatolii Serdyuk Ulyana Hrabova</b></p> <p>Order estimates of the uniform approximations by Zygmund sums on the classes of convolutions of periodic functions</p>	<p><b>Lakhlifa Sadek Hamad Talibi Alaoui</b></p> <p>The extended nonsymmetric block lanczos methods for solving large-scale differential Lyapunov equations</p>	<p><b>Asylbek Chekeev Azim Abdiev</b></p> <p>Realcompactifications of <math>A</math>-spaces</p>
15.00-15.20	<p><b>Yulia Kozachenko Viktor Savchuk</b></p> <p>Strong rectangular Fejer means for bounded holomorphic functions in polydisk</p>	<p><b>Asan Omuraliev Ella Abylaeva</b></p> <p>Asymptotics of the solution of parabolic problems with nonsmooth boundary functions</p>	<p><b>Hatice Kübra Sarı Abdullah Kopuzlu</b></p> <p>On Topological Structures of The Simple Undirected Graphs</p>

15.20-15.40		<b>Asan Omuraliev</b> <b>Peiil Esengul kyzy</b>  Asymptotics of the solution of a parabolic system with an irreversible limit operator	<b>İsmet Altıntaş</b> <b>Arzygul Imankulova</b>  On elementary soft compact spaces
15.40-16.00	<i>Coffee break</i>		
<b>KG Time,</b>	<b>Chairman:</b> <b>Kateryna Pozharska</b>	<b>Chairman:</b> <b>Anargül Urdaletova</b>	<b>Chairman:</b> <b>Asilbek Chekeev</b>
16.00-16.20	<b>Viktoriia Voloshyna</b>  On sign-preserving approximation of periodic functions by trigonometric polynomials	<b>Avyt Asanov</b> <b>Kalyskan Matanova</b>  Approximate Solution of the system of Volterra-Stieltjes Linear Integral Equations of the Second Kind with the Generalized Trapezoid Rule	<b>İsmet Altıntaş</b> <b>Hatice Parlatici</b>  An invariant of regular isotopy for disoriented diagrams
16.20-16.40	<b>Mykyta Shcheglov</b>  Pointwise estimate of deviation of Kriakin polynomial from a function, continuous on a segment	<b>Atanaska Georgieva</b> <b>Mira Spasova</b>  Application of natural decomposition method to solve nonlinear Volterra Fuzzy integro-differential equations	<b>Md. Lalin Chowdhury</b> <b>Ruhul Amin</b>  New Notion in R1 Supra Fuzzy Topological Space

16.40-17.00	<p><b>Tamara Petrova Irina Petrova</b></p> <p>About generalization of pointwise interpolation estimates of a monotone approximation of functions having a fractional derivative of arbitrary order</p>	<p><b>Habib ur Rehman Murat Ozdemir Poom Kumam</b></p> <p>Accelerated explicit Tseng's extragradient methods for solving different classes of variational inequalities</p>	<p><b>Raihanul Islam Ruhul Amin Sudipto Kumar Shaha</b></p> <p>On T2 separation axioms in fuzzy soft topological spaces</p>
17.00-17.20	<p><b>Mohd Qasim</b></p> <p>Generalized Jain-Beta operators and their approximation properties</p>	<p><b>Belkacem Chaouchi Lakhdar Benaissa</b></p> <p>An abstract approach for the study of a Boundary Value Problem For the Biharmonic Equation Set In a lingular Domain</p>	<p><b>Ruhul Amin Sahadat Hossain</b></p> <p>New concepts of <math>R_1</math> separation in Fuzzy Bitopological Spaces in Quasi-coincidence sense</p>
17.20-17.40	<p><b>N. Pelin Ozkartepe Cevahir Dogunay Gun</b></p> <p>On some approximate properties of the p-Bieberbach polynomials in closed regions</p>	<p><b>Alexandr Belyaev</b></p> <p>Poincaré method in KAM-theory</p>	<p><b>Merve Aktay Murat ÖZDEMİR</b></p> <p>On <math>\phi</math>-weak Pata contractions in metric spaces</p>

17.40-18.00	<p><b>Viktor Savchuk</b> <b>Maryna Savchuk</b></p> <p>An extremal problem for the invariant differential operators on class of Cauchy type integrals (poster)</p>	<p><b>Samandar Iskandarov</b> <b>Abdibait</b> <b>M.Baigesekov</b></p> <p>On the influence of integral perturbations of the Volterra-Stiltes type to the boundedness of solutions of a second-order linear differential equations on the semi-axis</p>	<p><b>Olgun Durmaz</b> <b>Buşra Aktaş</b> <b>Halit Gündoğan</b></p> <p>Introduction to ordering Dual numbers</p>
18.00-18.20		<p><b>Samandar Iskandarov</b> <b>Atahan T.Khalilov</b></p> <p>On the method of Lyapunov functionals for linear Volterra integro-differential equation of first order with a delay on the half-axis</p>	<p><b>Anarkul Urdaletova</b> <b>Syrgak Kydyraliev</b> <b>Elena Burova</b></p> <p>Common course "Mathematics" in the school, as a symbiosis of geometry and algebra</p>
18.20-18.40		<p><b>Zhyldyz Zh. Sarkelova</b> <b>Taalaipek D. Omurov</b></p> <p>Inverse loaded two-speed transfer problems of Katz type in an unbounded domain with a collision integral</p>	<p><b>Tamara Karasheva</b></p> <p>New aspects of the physical worldview in the course concepts of modern natural science</p>

18.40-19.00		<p><b>Nalin Fonseka</b>  <b>Ratnasingham Shivaji</b>  <b>Byungjae Son</b>  <b>Keri Spetzer</b></p> <p>Elliptic boundary value problems where a parameter affects both the equation and the boundary conditions</p>	<p><b>Azat Akmatbekova</b>  <b>Gulshat</b>  <b>Muhametjanova</b></p> <p>Organization of virtual laboratory work of students in physics in the distance learning system</p>
19.00	<p style="text-align: center;"><i>Closing of the conference</i></p> <p style="text-align: center;"><b>KG Time, GMT+6</b></p>		