



20 - 25 AUGUST 2023, ROSTOV-ON-DON, RUSSIA

MODERN METHODS, PROBLEMS AND APPLICATIONS OF OPERATOR THEORY AND HARMONIC ANALYSIS

OTHA-2023 <http://otha.sfedu.ru/>, otha.conference@gmail.com

SCIENTIFIC PROGRAMM & SCHEDULE OF EVENTS

MONDAY 21.08.2023 Location: Main Administrative bldg, Bolshaya Sadovaya 105/42. Registration, 09:20-9:40

9:20-9:40	Registration (Lobby of the main administrative building, Bolshaya Sadovaya 105/42)		
9:45-13:20	Plenary Session (Ground floor, Scientific Council Room)		
9:45-10:00	Opening Ceremony		
10:00-10:30	E. K. Narayanan	Injectivity of spherical means on H -type groups	Chairman – Karapetyants Alexey
10:30-11:00	Mirotin Adolf	On the Gelfand spectrum of a measure algebra	
11:00-11:30	Bufetov Alexander	Gaussian multiplicative chaos for the sine-process	
11:30-11:40	Coffee break		
11:40-12:10	Muravnik Andrey	Blow-Up phenomena for coercive KPZ-type inequalities	Chairman – E. K. Narayanan
12:10-12:40	Karapetyants Alexey	On boundedness of Hausdorff-Berezin operators on weighted spaces	
12:40-13:10	Mainardi Francesco	Wright functions of the second kind in fractional diffusion processes (online)	

13:10-13:30	Photo: Please, gather at the Monument Ataman Platov for the conference photo.		
13:30-14:30	Lunch (“Magadan” restaurant, Kirovskiy Avenue 39)		
14:30-17:00	Session talks		
18:00-20:00	Welcome dinner (Hotel Don Quixote, Ulyanovskaya St. 58, 14th floor)		

14:30-17:00	Session «Differential Equations and Mathematical Physics» (Ground floor, Scientific Council Room)		
14:30-15:00	Shishkina Elina	About fractional hyperbolic equations	Chairman – Zhukov Michael
15:00-15:15	Lapin Kirill	Uniform Poisson boundedness and uniform oscillability of solutions of systems of differential equations	
15:15-15:30	Morgulis Andrey	Acoustic wind in Cattaneo-type chemosensitive motion model	
15:30-15:45	Ostrovskaya Irina	On stability of the system of two/three-point vortices and a moving cylinder with arbitrary circulation	Chairman – Shishkina Elina
15:45-16:00	Zhukov Michael	Spectral problem with delta function coefficients to determine the convective instability of a fluid	
16:00-16:15	Morshneva Irina	Classification of codimension 2 bifurcation points in dynamical systems with cylindrical symmetry	
16:15-16:30	Grebeneva Anastasia	Structure of solutions in the problem of spin combustion in the ring region	

16:30-16:45	Sharipov Ruslan	3D-brane universe model is a new non-Einsteinian theory of gravity	
16:45-17:00	Oksogoeva Irina	Calculation of plasma transfer in a helical magnetic field with boundary conditions at infinity	

14:30-17:00	Session «Probability-Analytical Models and Methods» (Ground floor, Round Table Room)		
14:30-14:45	Pavlov Igor	On the coincidence of spaces with martingale mixed norm with the space of bounded random variables in the case of irregular stochastic bases	Chairman – Farbod Davood
14:45-15:00	Erusalimskiy Iakov	Classical and resource networks - difference and commonality	
15:00-15:15	Martynov Gennady	Computing methods in the theory of the Cramer-von Mises test	
15:15-15:30	Saenko Viacheslav	Calculation of strictly stable laws for large and small coordinates	
15:30-15:45	Matkovsky Vladislav	Some problems of forecasting based on statistical data	Chairman – Pavlov Igor
15:45-16:00	Farbod Davood	On new probability models generated by birth and death processes	
16:00-16:15	Basirat Maryam	Asymptotic properties of ML estimator of stress-strength parameter based on order statistics	
16:15-16:30	Nesterenko Victor	Modification of the K-means clustering method	
16:30-16:45	Grechko Alexander	Artificial neural networks for simulating Lévy process extrema	
16:45-17:00	Rokhlin Dmitry	On the dual gradient descent method for the resource allocation problem in multi-agent systems	

TUESDAY 22.08.2023 Location: Main Administrative bldg, Bolshaya Sadovaya 105/42.			
10:00-13:30	Plenary Session (Ground floor, Scientific Council Room)		
10:00-10:30	Fedorovsky Konstantin	Uniform approximation by solutions of elliptic equations and systems: classical problems, new issues and current view	Chairman – Muravnik Andrey
10:30-11:00	Apushkinskaya Daria	Venttsel problems with discontinuous data	
11:00-11:30	Rossovsky Leonid	On the (absence of) continuous dependence of solutions to elliptic functional-differential equations on transformation parameters	
11:30-12:00	Smorodina Natalia	Some properties of the Brownian local time fractional derivative	
12:00-12:10	Coffee break		
12:10-12:40	Soldatov Alexander	Integral representations for second-order elliptic systems	Chairman – Fedorovsky Konstantin
12:40-13:10	Gliklikh Yury	Models of viscous fluids generated by martingales on the groups of diffeomorphisms	
13:10-13:40	Yurko Vyacheslav	Method of spectral mappings in the inverse problem theory	
13:40-14:40	Lunch (“Magadan” restaurant, Kirovskiy Avenue 39)		
14:40-16:55	Session talks		
17:30-20:00	Banquet on a river boat, bus to the boat will depart from the main Administrative bldg, Bolshaya Sadovaya 105/42		

14:40-16:55	Session «Functional Analysis, Operator Theory and Approximation Theory» (Ground floor, Scientific Council Room)		
14:40-15:10	Malyutin Konstantin	Proximate order with respect to the model growth function	Chairman - Zelenchuk Pavel
15:10-15:25	Polyakova Daria	On the range of a convolution operator in spaces of ultradifferentiable functions	
15:25-15:40	Ivanova Olga	On a space of analytic functionals as an algebra by multiplicative convolution	
15:40-15:55	Korablina Yulia	On topological properties of linear operators on quasi-Banach spaces	

15:55-16:10	Abdourahman Haman Adji	On some finite dimensional extensions for a Noether operator in a specific functional space	
16:10-16:25	Zelenchuk Pavel	Mathematical model of the predator-prey system with an ideal free distribution on a two-dimensional area	Chairman – Abdourahman Haman Adji
16:25-16:40	Morales Evelyn	Boundedness of Hadamard-Bergman and variable Hadamard-Bergman convolution operators	
16:40-16:55	Danelyan Elena	Some class of operators of Hausdorff type on the segment	

14:40-16:55	Session «Probability-Analytical Models and Methods» (Ground floor, Round Table Room)		
14:40-14:55	Beliavsky Grigory	Binary models in random environments	Chairman – Skorikov Alexander
14:55-15:10	Zemlyakova Irina	Formation of optimal credit portfolio using fuzzy-multiple approach	
15:10-15:25	Alymova Elena	Artificial neural networks and Wiener-Hopf factorization	
15:25-15:40	Danilova Natalia	Algorithms for calculating the confidence set in optimal portfolio problems	
15:40-15:55	Makarov Oleg	Control of the choice of algorithms in problems of multi-agent routing	Chairman – Beliavsky Grigory
15:55-16:10	Chubatov Andrey	On two stochastic interpretations of fully nonlinear parabolic equations arising in financial mathematics	
16:10-16:25	Misyura Valentina	Application of regression to classification with class probability estimation	
16:25-16:40	Skorikov Alexander	On the asymptotic behavior of insurance risks for special heavy - tailed distributions	
16:40-16:55	Yao Keyu	Principal component analysis and two online gradient-descend methods for solving the optimal portfolio problem	

WEDNESDAY 23.08.2023 Location: Main Administrative bldg, Bolshaya Sadovaya 105/42.

9:30-13:30	Plenary Session (Ground floor, Scientific Council Room)		
9:30-10:00	Arsenovic Milos	H^p theory of separately (α, β) harmonic functions in the unit polydisc	Chairman – Khoury Suheil
10:00-10:30	Jerbashian Armen	Banach spaces of delta-subharmonic functions	
10:30-11:00	Skopina Maria	Harmonic analysis on the space of M -positive vectors	
11:00-11:30	Ilolov Mamadsho	Fractional stochastic differential equation of porous media	
11:30-11:40	Coffee break		
11:40-12:10	Kusraeva Zalina	On compact disjointness preserving multilinear operators and homogeneous polynomials	Chairman – Skopina Maria
12:10-12:40	Vagharshakyan Armen	A comment on the learning theory	
12:40-13:10	Khoury Suheil	A fixed-point iterative scheme for solving DEs: embedded Green function in an integral operator	

13:10-14:10	Lunch (“Magadan” restaurant, Kirovskiy Avenue 39)
14:10-16:55	Session talks

14:10-16:40 Session «Differential Equations and Mathematical Physics» (Ground floor, Scientific Council Room)			
14:10-14:25	Litvinov Vladislav	Research of transverse rope oscillations moving in the longitudinal direction	Chairman – Melekhov Andrey
14:25-14:40	Lukianenko Vladimir	Iterative algorithms for solving an equation of the Urysohn type of the 1st kind	
14:40-14:55	Prozorov Oleg	Vibration-induced thermal convection in a deformable layer	
14:55-15:10	Gorshkov Aleksei	Degenerate Fourier-type transforms and their application to mathematical physics	
15:10-15:25	Kurdoglyan Aik	On some stability and bifurcation problems in the theory of cosymmetric dynamical systems	
15:25-15:55	Sitnik Sergei	Voronezh mathematical school on singular differential equations	Chairman – Lukianenko Vladimir
15:55-16:10	Melekhov Andrey	On stability of the Thomson polygon of vortex charges outside the circular region	
16:10-16:25	Karamyan Ruben	Spectral properties of a fourth-order differential operator with integral conditions	
16:25-16:40	Kornuta Angelika	A problem with an oblique derivative for a nonlinear equation of parabolic type with involution	

14:10-14:55 Session «Special session dedicated to the memory of Professor S. Klimentov» (Ground floor, Round Table Room)			
14:10-14:55	Sitnik Sergei	Presentation dedicated to Professor S.Klimentov	Chairman – Sitnik Sergei

15:00-16:55 Session «Functional Analysis, Operator Theory and Approximation Theory» (Ground floor, Round Table Room)			
15:00-15:30	Fedotov Alexander	Justification of a Galerkin method for solving singular integrodifferential equations with fractional order derivatives	Chairman – Vakulov Boris
15:30-16:00	Umarkhadzhiev Salaudin	Grand Lebesgue spaces	
16:00-16:15	Vorotnikov Roman	Smoothness of generalized eigenfunctions of differential-difference operators on a finite interval	
16:15-16:25	Drobotov Yuri	Riesz potential in weighted generalized Hölder spaces. Part I: General results on a power weight.	
16:25-16:40	Vakulov Boris	Riesz potential in weighted generalized Hölder spaces. Part II: Advanced techniques. Further prospects.	
16:40-16:55	Andreeva Tatiana	The surjectivity and injectivity of convolution operators. Some interdisciplinary corollaries.	

THURSDAY 24.08.2023 Location: Hotel Don Quixote, Ulyanovskaya St. 58.

10:00-16:00 **Excursion to Starocherkasskaya. A bus departs from the hotel Don Quixote at 10:00.**