



21 - 26 AUGUST 2022, ROSTOV-ON-DON, RUSSIA

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

OTHA-2022 <http://otha.sfedu.ru/>, otha.conference@gmail.com

SCIENTIFIC PROGRAMM & SCHEDULE OF EVENTS

MONDAY 22.08.2022 Location: Main Administrative bldg, Bolshaya Sadovaya 105/42. Registration, 09:15-10:10

9:15-10:10	Registration (Lobby of the main administrative building, Bolshaya Sadovaya 105/42)		
10:10-13:35	Plenary Session (Ground floor, Scientific Council Room)		
10:10-10:30	Samko Stefan (online)	To the Memory of Professor N. Karapetiants: Life and Scientific Heritage	Chairman – Alexey Karapetyants
10:30-11:05	Mirotin Adolf	On μ -Hankel operators	
11:05-11:40	Muravnik Andrey	Elliptic equations with nonlocal potentials in half-spaces	
11:40-11:50	Coffee break		
11:50-12:25	Karapetyants Alexey	On certain classes of Hausdorff-Berezin type operators	Chairman – Andrey Muravnik
12:25-13:00	Duduchava Roland (online)	Global pseudo-differential operators on the Lie group $G = (-1,1)^n$	
13:00-13:35	Carlos Pérez Moreno (online)	The Hardy-Littlewood maximal function, sharp new estimates on weighted Lorentz-spaces	

13:40-13:45	Photo: Please, gather at the Monument Ataman Platov for the conference photo.		
13:45-14:30	Lunch (Restaurant “Bellucci” in front of the main building (Bolshaya Sadovaya St. 122a)		
14:45-17:00	Session talks		
17:15-20:00	Welcome furshet on a river boat, bus to the boat will depart from the main Administrative bldg, Bolshaya Sadovaya 105/42 at 17:15		

14:45-16:35	Session «Functional Analysis, Operator Theory and Approximation Theory» (Ground floor, Scientific Council Room)		
14:45-15:15	Stukopin Vladimir	Asymptotics of large Toeplitz matrices	Chairman – Vakulov Boris
15:20-15:35	Umarkhadzhiev Salaudin	Grand Morrey type spaces	
15:40-15:55	Morales Evelyn	A note on Hadamard-Bergman convolution operators	
16:00-16:15	Vakulov Boris	Hypersingular integrals over metric sets in weighted generalized Hölder spaces	Chairman – Umarkhadzhiev Salaudin
16:20-16:35	Levenshtam Valeriy	Averaging of quasilinear hyperbolic systems	

14:45-17:00	Session «Differential Equations and Mathematical Physics» (Ground floor, Round Table Room)		
14:45-15:00	Shishkina Elina	Uniqueness and boundedness of the solution to the Cauchy problem for the general Euler-Poisson-Darboux equation	Chairman – Norkin Mikhail
15:05-15:20	Kryakvin Vadim	On the Fredholm solvability of the general elliptic problems in variable Hölder–Zygmund spaces	

15:25-15:40	Morgulis Andrey	Shocks and smooth non-linear waves in a hyperbolic predator-prey system with the Cattaneo flux	Chairman – Shishkina Elina
15:45-16:00	Sitnik Sergei	Some recent results in transmutation theory	
16:05-16:20	Norkin Mikhail	Collapse of the attached cavity in the hydrodynamic impact problem	
16:25-16:40	Morshneva Irina	Resonant bifurcation modes in the horizontal layer of a binary mixture	
16:45-17:00	Kurdoglyan Aik	Analysis of bifurcations in dynamical systems in the neighborhood of the cosymmetric equilibrium	

TUESDAY 23.08.2022 Location: Main Administrative bldg, Bolshaya Sadovaya 105/42.

9:30-13:30	Plenary Session (Ground floor, Scientific Council Room)		
9:30-10:05	Suslina Tatiana	Operator error estimates for homogenization of higher-order hyperbolic equations	Chairman – Khoury Suheil
10:05-10:40	Soldatov Alexander	Singular integral equations of nonclassic type on piecewise smooth curves	
10:40-11:15	Savin Anton	A local index formula for noncommutative orbifolds	
11:15-11:35	Coffee break		
11:35-12:10	Khoury Suheil	On a property of a class of fourth-order boundary value problems	Chairman – Suslina Tatiana
12:20-12:55	Antonevich Anatoly (online)	On extension of mappings: from Gelfand transform up to multiplicaton of distributions	
12:55-13:30	Rabinovich Vladimir (online)	Dirac operators with singular potentials	
13:30-14:30	Lunch (Restaurant “Bellucci” in front of the main building (Bolshaya Sadovaya St. 122a)		
14:45-18:00	Session talks		

14:45-17:00	Session «Functional Analysis, Operator Theory and Approximation Theory» (Ground floor, Scientific Council Room)		
14:45-15:00	Sadov Sergey	Maximizers of convolution operators in L_p spaces	Chairman – Mirotin Adolf
15:05-15:20	Petrov Vladimir	Some inverse problems of the Fourier optics	
15:25-15:40	Fedotov Alexander	Justification of a quadrature-difference method for (..)	
15:45-16:00	Dzhabrailov Achmed	The concept of capacity based on the generalized Bessel potential	Chairman – Petrov Vladimir
16:05-16:20	Ashikhmin Sergey	On the boundedness and compactness of a class of convolution-type operators (...)	
16:25-16:40	Hu Nicola	Solving the fractional differential Riccati equation through numerical methods, in particular with the neural networks	
16:45-17:00	Aleroev Suleyman	j -Self-Adjointness Conditions for Jacobi Matrices and Schrödinger and Dirac Operators with Point Interactions	

14:45-18:00	Session «Differential Equations and Mathematical Physics» (Ground floor, Round Table Room)		
14:45-15:00	Vatulyan Alexander	The investigation of wave processes in inhomogeneous cylindrical waveguides with arbitrary cross-section	Chairman – Faminskii Andrei
15:05-15:20	Yurov Victor	The investigation of oscillations of inhomogeneous piezo structures	
15:25-15:40	Lukyanenko Vladimir	Some mathematical models of optics and plasmonics	
15:45-16:00	Almohammad Khalil	Integral properties of generalized potentials type Bessel and Riesz type	
16:05-16:20	Lapin Kirill	Krasnoselskii canonical domains and the existence of non-negative Poisson bounded solutions	

16:25-16:40	Ostrovskaya Irina	The linear stability analysis of the system of a moving circular cylinder and regular configuration of n identical point vortices	Chairman – Vatulyan Alexander
16:45-17:00	Zhuikov Konstantin	An index theorem for differential-difference operators on an infinite cylinder	
17:05-17:20	Mahmoud Elsayed	Integral properties of generalized potentials type Bessel and Riesz type	
17:25-17:40	Boltachev Andrei	On index of elliptic boundary value problems associated with isometric group actions	
17:45-18:00	Nikolenko Petr	On the fastest possible withdrawal of a group of objects to a given level of capital-labor ratio	

WEDNESDAY 24.08.2022 Location: Main Administrative bldg, Bolshaya Sadovaya 105/42.

9:30-13:30	Plenary Session (Ground floor, Scientific Council Room)		
9:30-10:05	Skopina Maria	Step refinable functions on the Vilenkin groups	Chairman – Kusraeva Zalina
10:05-10:40	Bondarenko Natalia	Inverse spectral problems for differential operators with distribution coefficients	
10:40-11:15	Faminskii Andrei	Initial-boundary value problems for the higher order nonlinear Schrodinger equation	
11:15-11:35	Coffee break		
11:35-12:10	Gliklikh Yuri	Some recent results in transmutation theory	Chairman – Bondarenko Natalia
12:20-12:55	Iolov Mamadsho	Evolutional stochastic equations: white noise solutions	
12:55-13:30	Kusraeva Zalina	Order properties of homogeneous polynomials	

13:30-14:30	Lunch (Restaurant “Bellucci” in front of the main building (Bolshaya Sadovaya St. 122a)
14:30-17:25	Session talks
18:30-21:00	Banquet (Hotel Don Quixote, Ulyanovskaya St. 58, 13th floor)

14:30-17:25	Session «Theory of Functions and Function Spaces - a special session dedicated to the memory of Professor M.M.Dragilev» (Ground floor, Scientific Council Room)		
14:30-15:00	Abanin Alexander	Mikhail Mikhailovich Dragilev: Outstanding mathematician and teacher	Chairman – Abanin Alexander
15:00-15:15	Melikhov Sergej	Operators of almost Hadamard type on entire functions	
15:15-15:30	Ivanova Olga	Hadamard type operators in spaces of holomorphic functions on a ball	
15:30-15:45	Kostin Andrei	Completeness and basis property of a system of functions connected with the inverse problem	
15:45-16:00	Dronov Alexey	Interpolation properties of positive operators in spaces of numerical sequences (...)	
16:00-16:10	Break		
16:10-16:25	Sherstyukov Vladimir	The extremal problems for the type of entire function and the radii of completeness (...)	Chairman – Braichev Georgii
16:25-16:40	Braichev Georgii	The extremal problems for the type of entire function and the radii of completeness (...)	
16:40-16:55	Polyakova Daria	On the range of the Borel map in spaces of ultradifferentiable functions	
16:55-17:10	Shubarin Michael	The approximation properties of the power Köthe spaces	
17:10-17:25	Korablina Yulia	On dynamics of the classical operators on weighted spaces of holomorphic functions	

14:30-17:25	Session «Probability-Analytical Models and Methods» (Ground floor, Round Table Room)		
14:30-14:45	Skorikov Alexander	The asymptotic of heavy-tail distributions time remaining	Chairman -

14:45-15:00	Rokhlin Dmitry	Online linear regression for prediction of non-stationary time series	Pavlov Igor
15:00-15:15	Erusalimskiy Iakov	Some networks that allow splashes of dynamic flows and finding the maximum splash value	
15:15-15:30	Danilova Natalia	Machine learning methods for solving the optimal portfolio problem	
15:30-15:45	Zemlyakova Irina	Solution of the quantile hedging problem under passage (...)	
15:45-16:00	Sobolev Vitaly	Stationary Distributions of some Discrete Markov Chains	
16:00-16:10	Break		
16:10-16:25	Pavlov Igor	On A. Pelczynski-type theorem in Banach spaces with martingale mixed norm	Chairman – Gliklikh Yuri
16:25-16:40	Beliavsky Grigory	Principal component analysis in optimal portfolio problem	
16:40-16:55	Tsvetkova Inna	On signed interpolating deflators	
16:55-17:10	Hamadeh Alkhalil Nesrin	Differential properties of generalized potentials type Bessel and Riesz type	
17:10-17:25	Uglich Sergey	Development of a model with random priorities	

18:30-21:00	Banquet (Hotel Don Quixote, Ulyanovskaya St. 58, 13th floor)
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THURSDAY 25.08.2022 Location: Hotel Don Quixote, Ulyanovskaya St. 58.	
10:00-19:00	Excursion to Taganrog and vicinities. A bus departs from the hotel Don Quixote at 10:00.