SCIENTIFIC PROGRAMM & SCHEDULE OF EVENTS

MONDAY 26.08.2024 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	Suslina Tatiana	Operator estimates for homogenization of the Levy-type operators with periodic coefficients	Chairman – Karapetyants Alexey
10:30-11:00	Debbouche Amar	Mathematical models involving continuous & discrete fractional operators	
11:00-11:30	Muravnik Andrey	Classification problem for partial differential-difference equations: recent enhances and discussion issues	
11:30-11:45	Coffee break		
11:45-12:15	Karapetyants Alexey	Aggrandization of spaces of holomorphic functions	Chairman – Muravnik Andrey
12:15-12:45	Kusraev Anatoly	Geometric characterization of injective Banach lattices	
12:45-13:00	Erusalimskiy Iakov	About the project "Simple & Beautiful Math" (textbooks & lectures)	

13:00-13:10	Photo: Please, gather at the Monument Ataman Platov for the conference photo.
13:10-14:30	Lunch (“Magadan” restaurant, Kirovskiy Avenue 39)
14:30-18:05	Session talks
19:00-21:00	Welcome dinner (Hotel Don Quixote, Ulyanovskaya St. 58, 13th floor)

14:20-17:20	**Session «Differential Equations and Mathematical Physics» (Ground floor, Scientific Council Room)**		
14:20-14:50	Pskhu Arsen	On the theory of integro-differential operators of distributed order	Chairman – Rossovsky Leonid
14:50-15:05	Kornuta Angelica	Approximate solutions of non-linear parabolic equation with transformation of space variables	
15:05-15:20	Levenshtam Valeriy	On time averaging of evolutionary problems	
15:20-15:35	Karamyan Ruben	A priori estimates of solutions for even-order ordinary differential equations with integral boundary conditions	
15:35-15:50	Henka Youcef	Study of the parabolic degenerate p-biharmonic problem with memory	
15:50-16:05	Safarov Akbar	Estimates for oscillatory integrals with Mittag-Leffler function	
16:05-16:20	Lukianenko Dmitry	Modelling of polariton emission	
16:20-16:35	Grebeneva Anastasia	Initial-boundary problem for differential-difference equations with fractional operator of Laplace	Chairman – Pskhu Arsen
16:35-16:50	Nagumanova Anna	Direct and inverse problems for the evolution equation with the Caputo - Fabrizio derivative	
16:50-17:05	Adkhamova Amina	Krasovskii's problem on calming a multidimensional control system with delays of degenerate type	
17:05-17:20	Skryabin Maxim	On the symbol of differential-difference operators in cylinders	

14:30-17:45	**Session « Modern problems of hydrodynamics (to the 90th anniversary of the birth of V.I. Yudovich)» (Ground floor, Round Table Room)**		
14:30-14:45	Zhukov Mikhail	Boundary value problem for a transverse nonlinear electromagnetic wave	Chairman – Zhukov Mikhail
14:45-15:00	Norkin Mikhail	Jet effect during separation impact of a floating cylinder	
15:00-15:15	Govorukhin Vasily	Bifurcations and route to chaos via the cosymmetry breaking in the convection in porous media problem	
15:15-15:30	Serbina Ludmila	Application of loaded parabolic equations in filtration theory	
15:30-15:45	Poliakova Natalia	Fluid flow structure in an infinite cylindrical channel	
15:45-16:00	Revina Svetlana	Stability of periodic and almost periodic shear flows	
16:00-16:15	Ostrovskaya Irina	On stability in the N+1 problem of a point vortex in a bilayer fluid	
16:15-16:30	Dolgikh Tatiana	Cauchy problem for describing of the plane electromagnetic wave in an anisotropic medium	
16:30-16:45	Morshneva Irina	Andronov-Hopf bifurcation in the hydrodynamic systems with symmetry	
16:45-17:00	Selischev Alexander	Compact scheme in anisotropic porous medium convection: cosymmetry preservation and computer experiment	
17:00-17:15	Shiryaeva Elena	Stationary fluid flow through a 2D branched channel	
17:15-17:30	Prozorov Oleg	Secondary regimes in the problem of thermal vibrational convection	
17:30-17:45	Kokhanov Pavel	Convection Darcy: cosymmetry and approximation in cylindrical coordinates on a non-uniform grid	
17:45-18:00	Kurdoglyan Aik	Classification of dynamic systems in the vicinity of a cosymmetric equilibrium and a circle of non-cosymmetric equilibria	

TUESDAY 27.08.2024 Location: Main Administrative bldg, Bolshaya Sadovaya 105/42.			
10:00-13:30	**Plenary Session (Ground floor, Scientific Council Room)**		
10:00-10:30	Bufetov Alexander	Point processes and multiplicative chaos	Chairman – Ilolov Mamadsho
10:30-11:00	Mirotin Adolf	On a general concept of a Hausdorff-type operator	
11:00-11:30	Rossovsky Leonid	Problem of localization for functional differential equations	
11:30-12:00	Lyalinov Mikhail	Spectral and analytic properties of some functional-difference equations and their applications in mathematical physics	
12:00-12:10	Coffee break		
12:10-12:40	Ilolov Mamadsho	Fuzzy fractional stochastic differential equations	Chairman – Mirotin Adolf
12:40-13:10	Kusraeva Zalina	Approximation of positive polynomials	
13:20-14:20	Lunch (“Magadan” restaurant, Kirovskiy Avenue 39)		
14:20-16:55	Session talks		
17:00-20:00	A river boat trip and dinner (registration required), bus to the boat will depart from the main Administrative bldg, Bolshaya Sadovaya 105/42		

14:30-17:00	**Session «Functional Analysis, Operator Theory and Approximation Theory» (Ground floor, Scientific Council Room)**		
14:30-15:00	Umarkhadzhiev Salaudin	Grand spaces	Chairman – Lukianenko Vladimir
15:00-15:15	Kryakvin Vadim	Anisotropic pseudodifferential operators on Hölder-Zygmund spaces of variable smoothness	
15:15-15:45	Malyutin Konstantin	Applications of the Leontyev interpolating function to the theory of trigonometric convex functions	
15:45-16:00	Stukopin Vladimir	Asymptotic of banded Toeplitz matrices of special type	Chairman – Malyutin Konstantin
16:00-16:30	Fedotov Alexander	Asymptotic convergence of the polynomial collocation method for singular integral equations and periodic pseudodifferential equations	
16:30-16:45	Braichev Georgy	New method for finding the radius of completeness of exponential systems	
16:45-17:00	Lukianenko Vladimir	Using Close Equations to Construct Approximate Solutions	

14:30-16:45	**Session «Modern problems of solid mechanics (to the 90th anniversary of the birth of Yu.A. Ustinov)» (Ground floor, Round Table Room)**		
14:30-14:45	Vatulyan Alexander	About the scientific work of Professor Yu.A. Ustinov	Chairman - Vatulyan Alexander
14:45-15:00	Karyakin Mikhail	Stressed state of the nonlinear shells with defects	
15:00-15:15	Nedin Rostislav	Regarding an optimization problem for a prestressed plate with nonuniform material properties	
15:15-15:30	Boyev Nikolay	Focusing of longitudinal waves with their single and double reflection from a circular boundary	
15:30-15:45	Chebanenko Valeriy	Optimization problem for an electroelastic beam structure	
15:45-16:00	Yurov Victor	On optimizing the properties of functionally graded materials	
16:00-16:15	Sadyrin Evgeniy	An approach to evaluate the efficacy of root canal instrumentation ex vivo using microtomography	
16:15-16:30	Roshal Daria	Modeling of growth and structure of corals	
16:30-16:45	Belyak Olga	Fluctuations of a die on a layered heterogeneous substrate taking into account friction in the contact area	

17:00-20:00	A river boat trip and dinner (registration required), bus to the boat will depart from the main Administrative bldg, Bolshaya Sadovaya 105/42

WEDNESDAY 28.08.2024 Location: Main Administrative bldg, Bolshaya Sadovaya 105/42.			
10:00-13:30	**Plenary Session (Ground floor, Scientific Council Room)**		
10:00-10:30	Gevorgyan Pavel	Continuous groups of binary transformations	Chairman – Kusraeva Zalina
10:30-11:00	Gliklikh Yury	On global in time solutions of stochastic algebraic-differential equations with forward mean derivatives	
11:00-11:30	Shaposhnikov Stanislav	The Fokker-Planck-Kolmogorov equation with nonlinear terms of local and non-local type	
11:30-11:40	Coffee break		
11:40-12:10	Skopina Maria	Wavelet frames on the spaces of M-positive vectors	Chairman – Georgyan Pavel
12:10-12:40	Morgulis Andrey	A survey of recent advances in Yudovich's problems	
12:40-13:10	Vagharshakyan Armen	The Hadamard–Bergman convolution on the half-plane	

13:20-14:20	Lunch (“Magadan” restaurant, Kirovskiy Avenue 39)
14:20-17:45	Session talks

14:20-17:30	**Session «Probability-Analytical Models and Methods» (Ground floor, Scientific Council Room)**		
14:20-14:35	Beliavsky Grigory	Machine learning methods in random investments problems	Chairman – Rokhlin Dmitry
14:35-14:50	Zemlyakova Irina	Application of fuzzy sets of the second type in building an optimal securities portfolio	
14:50-15:05	Danilova Natalia	Random partition and Monte Carlo method	
15:05-15:20	Virchenko Yuri	Branching random processes and construction of approximations in discrete percolation theory	
15:20-15:35	Abdulrahman Haydar	On a general approach to the functioning of resource networks	
15:35-15:50	Kudryavtsev Oleg	Hybrid numerical methods for option pricing	
15:50-16:05	Postolova Darya	Artificial neural networks and option pricing	
16:05-16:20	Ryazantsev Mikhail	The existence of a solution to a certain stochastic differential equation with mean derivatives	Chairman – Gliklikh Yury
16:20-16:35	Misura Valentina	Solving the problem of missing values in the sample when building regression models	
16:35-16:45	Makarov Oleg	Multi-agent approach to applied routing problems on complex networks	
16:45-17:00	Saenko Viacheslav	Estimation of the remainder term in the expansion of the stable law for extreme values of the asymmetry parameter	
17:00-17:15	Rokhlin Dmitry	Smooth online convex optimization with predictions	
17:15-17:30	Matkovskiy Vladislav	Agent-based approach in intelligent data processing considering the specificity of extracted information	

14:20-17:45	**Session «Functional Analysis, Operator Theory and Approximation Theory» (Ground floor, Round Table Room)**		
14:20-14:35	Ali Raza	The maximal operator on variable Lebesgue spaces	Chairman – Vakulov Boris
14:35-14:50	Vasilyev Vladimir	On elliptic equations and boundary value problems in domains with non-smooth boundaries	
14:50-15:05	Ivanova Olga	Convolution operator in a space of analytic functionals defined by the backward shift operator	
15:05-15:20	Magomed-Kasumov Magomedrasul	Uniform convergence of Fourier series in a system of Sobolev orthogonal polynomials associated with the ultraspherical Jacobi polynomials	
15:20-15:35	Ashikhmin Sergey	Integral operators with homogeneous kernels in local Morrey spaces	
15:35-15:50	Gadzhimirzaev Ramis	Convergence of the Fourier series in Laguerre-Sobolev polynomials and approximation properties of its partial sums	
15:50-16:05	Polyakova Daria	Convolution operators in the Roumieu spaces of ultradifferentiable functions	Chairman – Muravnik Andrey
16:05-16:20	Saranchuk Yuri	On homogeneous pi-convolution equation	
16:20-16:35	Vorotnikov Roman	On some properties of generalized eigenfunctions of differential-difference operators	
16:35-16:45	Vakulov Boris	Fractional integration over a multidimensional cylinder	
16:45-17:00	Drobotov Yury	Potential type operators on the generalized and variable generalized Hölder spaces	
17:00-17:15	Oreshina Maria	Spectral decomposition of normal operator in a real Hilbert space	
17:15-17:30	Grigorian Vladislav	Hausdorff-Berezin and Hausdorff-Zhu operators on bidisc	
17:30-17:45	Smirnova Irina	Spaces of analytic functions with mixed norm defined in the Fourier images	

THURSDAY 29.08.2024 Location: Hotel Don Quixote, Ulyanovskaya St. 58.	
10:00-18:00	**Excursion and dinner (registration required). A bus departs from the hotel Don Quixote at 10:00.**

Announcements and activities of the international research network OTHA (Operator Theory and Harmonic Analysis, https://msrn.sfedu.ru/)

Региональный научно-образовательный математический центр Южного федерального университета (РНОМЦ ЮФУ, rmc.sfedu.ru, msrn.sfedu.ru, otha.sfedu.ru).
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