

Workshop “Spectral Theory of Differential Operators”

25 August 2023, Room: 3C.1010

Department of Mathematics, School of Sciences and Humanities, NU

Program

Section 1 [Kazakh, Russian and English]

Moderator: Durvudkhan Suragan, NU

- 9:00-9:10 **Gonzalo Hortelano**, NU
Opening Speech
- 9:10-9:50 **Tynysbek Kalmenov**, IMMM*
On a method for constructing Green's function of the Dirichlet problem and regular boundary value problems for the Laplace equation
- 9:50-10:30 **Ziganur Fazullin**, Ufa University of Science and Technology
On the Gelfand-Levitan formula for the perturbation of the Laplace operator on a square
- 10:30-11:10 **Makhmud Sadybekov**, IMMM*
BVPs for ODEs with a spectral parameter in boundary conditions

11:10-11:50

Coffee break

Section 2 [English]

Moderator: Tolga Etgu, NU

- 11:50-12:30 **David Cruz-Urbe**, University of Alabama
Bounded weak solutions to elliptic PDE with data in Orlicz spaces
- 12:30-12:50 **Meiram Akhymbek**, IMMM*
Spectrum of the Cesàro operator in rearrangement invariant spaces
- 12:50-13:10 **Mukhtar Karazym**, Nazarbayev University
Variational analysis of a quasilinear subelliptic equation

13:10-15:00

Lunch break and group discussions

Section 3 [Kazakh, Russian and English]

Moderator: Anar Assanova, IMMM

- 15:00-15:20 **Khabir Ishkin**, Bashkir State University
Approximate properties of the system of root functions of the Sturm-Liouville operator on a curve with limited slope

*Institute of Mathematics and Mathematical Modeling, Almaty

- 15:20-15:40 **Abzhakhan Sarsenbi**, Auezov South Kazakhstan University
Spectral properties of involutive differential operators
- 15:40-16:00 **Kordan Ospanov**, Gumilyov Eurasian National University
Coercivity conditions for a singular elliptic equation

Short break

- 16:20-16:40 **Nurlan Imanbaev**, South Kazakhstan State Pedagogical University
On zeros of the characteristic determinant of the spectral problem for a third-order differential operator on a segment with nonlocal boundary conditions
- 16:40-17:00 **Niyaz Tokmagambetov**, Centre de Recerca Matemàtica
Kanguzhin type convolution
- 17:00-17:20 **Baltabek Kanguzhin**, Farabi University & IMMM
Closing Speech

Official dinner at 18:00
Location and price: TBA