





Bahçeşehir University, Istanbul, Türkiye Analysis & PDE Center, Ghent University, Ghent, Belgium Institute Mathematics & Math. Modeling, Almaty, Kazakhstan

## "Analysis and Applied Mathematics"

Weekly Online Seminar

Seminar leaders:

Prof. Allaberen Ashyralyev (BAU, Istanbul), Prof. Michael Ruzhansky (UGent, Ghent), Prof. Makhmud Sadybekov (IMMM, Almaty)

Date: Tuesday, March 5, 2024

<u>Time</u>: 14.00-15.00 (Istanbul) = 12.00-13.00 (Ghent) = 17.00-18.00 (Almaty)

<u>Place</u>: Meeting room of Faculty of Engineering and Natural Sciences, Bahçeşehir University, D-415

Zoom link: https://us02web.zoom.us/j/6678270445?pwd=SFNmQUIvT0tRaH-IDaVYrN3I5bzJVQT09, Conference ID: 667 827 0445, Access code: 1

Speaker:

Prof. Dr. Sergey Astashkin

Samara National Research University, Samara, Russia

## <u>Title:</u> Rademacher chaos, combinatorial dimension and discrepancy of set systems

<u>Abstract</u>: We focus on density estimates of an index set, under which some unconditionality type properties of the corresponding Rademacher chaos in a symmetric function space Ximply its equivalence in X to the canonical  $\ell^2$ -basis. Also we plan to consider some connections between estimates for the Rademacher chaos in  $L_{\infty}$  and discrepancy of some set systems.

## **Biography:**

**Sergey Astashkin** was born in Samara (Russia) in 1956. He graduated from Samara State University in 1978. He received his PhD degree from Voronezh State University in 1982. In 1999, he defended his doctoral thesis titled "Interpolation of operators and its applications" and obtained the degree of Doctor of Sciences from the Institute of Mathematics of Russian Academy of Sciences (Ekaterinburgh, Russia). Since 1999, he is a Professor and Head of the Department of Mathematics at Samara National Research University (Samara, Russia).

Prof. Dr. S. Astashkin has research interests in the following areas: geometry of Banach spaces, rearrangement invariant spaces, interpolation theory of operators, extrapolation theory of operators, orthogonal series, independent functions, lacunary series, Rademacher functions, Haar functions, harmonic analysis, probability and combinatorial methods in functional analysis, graph theory. He has published 174 research articles in peer-reviewed journals. He is the author of two books.