



Dear Colleagues!

Institute of Mathematics of the University of Georgia is pleased to invite you to the Online Tbilisi Analysis & PDE Seminar. The seminar is held bi-weekly on Mondays at 16 : 00 GMT (at 17 : 00 CET, at 20 : 00 local time in Tbilisi).

Talk on February 28, 2022

Speaker: Prof. **George Tephnadze**, The University of Georgia;
<https://www.researchgate.net/profile/George-Tephnadze>

The title of the lecture: “Almost everywhere convergence of partial sums of trigonometric and Vilenkin systems and certain summability methods”

Abstract: The classical theory of Fourier series deals with decomposition of a function into sinusoidal waves. Unlike these continuous waves the Vilenkin (Walsh) functions are rectangular waves. There are many similarities between these theories, but there exist differences also. Much of these can be explained by modern abstract harmonic analysis, combined with martingale theory.

This talk is devoted to investigating tools which are used to study almost everywhere convergence of the partial sums of trigonometric and Vilenkin systems. In particular, these methods combined with martingale theory helps to give a simpler proof of an analogy of the famous Carleson-Hunt theorem for Fourier series with respect to the Vilenkin system. We also define an analogy of Lebesgue points for integrable functions and we will describe which certain summability methods are convergent in these points.

Date: February 28, 2022

Time: 16 : 00 GMT (17 : 00 CET and 20 : 00 local time in Tbilisi)

How to join:

The seminar is organized on the **Cisco Webex Meetings**. If you are already registered, you do not need to register again. Otherwise, to join the seminar please send an e-mail to seminarim@ug.edu.ge or register here:

<https://forms.gle/xfQJ9fg1uqe7CrZw6>

You will then receive further information.

WEB of Seminar: <https://www.ug.edu.ge/en/tbilisi-analysis-and-pde-seminars>

Organizers:

1. R. Duduchava, Institute of Mathematics, University of Georgia, Tbilisi
2. E. Shargorodsky, Department of Mathematics, King’s College London
3. G. Tephnadze, Institute of Mathematics, University of Georgia, Tbilisi

Secretary:

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