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 Tuesdays at $20:00$ local time in Tbilisi.

Talk on November 1, 2022

Speaker: Prof. **Elijah Liflyand**, Bar-Ilan University;
https://u.math.biu.ac.il/~liflyand/

The title of the lecture: "Wiener algebras and trigonometric series in a coordinated fashion"

Abstract: Let $W_0(\mathbb{R})$ be the Wiener Banach algebra of functions representable by the Fourier integrals of Lebesgue integrable functions.

It is proven in the paper that, in particular, a trigonometric series $\sum\limits_{k=-\infty}^{\infty} c_k e^{ikt}$ is the Fourier series of an integrable function if and only if there exists a $\phi \in W_0(\mathbb{R})$ such that $\phi(k) = c_k$, $k \in \mathbb{Z}$. If $f \in W_0(\mathbb{R})$, then the piecewise linear continuous function ℓ_f defined by $\ell_f(k) = f(k)$, $k \in \mathbb{Z}$, belongs to $W_0(\mathbb{R})$ as well. Moreover, $\|\ell_f\|_{W_0} \le \|f\|_{W_0}$.

Similar relations are established for more advanced Wiener algebras. These results are supplemented by numerous applications. In particular, new necessary and sufficient conditions are proved for a trigonometric series to be a Fourier series and new properties of W_0 are established.

This is a joint work with R. Trigub.

Date: November 1, 2022
Time: $20:00$ local time in Tbilisi;
(**Compare to your local time**:   https://www.timeanddate.com/worldclock/georgia/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:

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3. G. Tephnadze, Institute of Mathematics, University of Georgia, Tbilisi

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