



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 May 14, 2024

Speaker: Prof. Sergei Grudsky, CINVESTAV, Mexico City.
<https://www.math.cinvestav.mx/~grudsky/index.html>

"Asymptotics of eigenvalues and eigenvectors of Toeplitz matrices"

Abstract: Analysis of the asymptotic behaviour of the spectral characteristics of Toeplitz matrices as the dimension of the matrix tends to infinity has a history of over 100 years. For instance, quite a number of versions of Szegő's theorem on the asymptotic behaviour of eigenvalues and of the so-called strong Szegő theorem on the asymptotic behaviour of the determinants of Toeplitz matrices are known. Starting in the 1950s, the asymptotics of the maximum and minimum eigenvalues were actively investigated. However, investigation of

the individual asymptotics of all the eigenvalues and eigenvectors of Toeplitz matrices started only quite recently: the first papers on this subject were published in 2009-2010. A survey of this new field is presented here.

Date: May 14, 2024

Time: 20 : 00 local time in Tbilisi;

(Compare to your local time:

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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2. E. Shargorodsky, Department of Mathematics, King's College London
3. G. Tephnadze, Institute of Mathematics, University of Georgia, Tbilisi

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