

Dear Colleagues!

The V. Kupradze Institute of Mathematics at the University of Georgia is pleased to invite you to the Online Tbilisi Analysis & PDE Seminar. The seminar is held bi-weekly on Wednesdays at 20:00 (GMT+4) local time in Tbilisi.

Talk on November 26, 2025

Speaker: Professor **Durvudkhan Suragan**, Nazarbayev University (NU), Astana, Kazakhstan;
E-mail: durvudkhan.suragan@nu.edu.kz; <https://research.nu.edu.kz/en/persons/durvudkhan-suragan/>

The title of the lecture: “Hardy-type inequalities on nilpotent Lie groups”

Abstract: In this talk, we will discuss some old and new results concerning Hardy-type inequalities on nilpotent Lie groups. The aim is to provide a brief overview of the subject, with the exposition primarily following the framework of [4]. We will also mention some of our recent results obtained in the joint works [1]–[3].

References

- [1] R. L. Frank, A. Laptev, D. Suragan, Eigenvalue lower bounds through a generalized inradius, arXiv:2509.18878, 2025.
- [2] M. Karazym, D. Suragan, Subelliptic p-Laplacian spectral problem for Hörmander vector fields, Math. Nachr. 298(4), 1184–1200 (2024).
- [3] T. Ozawa, D. Suragan, Representation formulae for the higher-order Steklov and L2m-Friedrichs inequalities, Asian J. Math. 28(1), 93–102 (2024).
- [4] D. Suragan, A Survey of Hardy-Type Inequalities on Homogeneous Groups, Springer Proc. Math. Stat. 385, 99–122 (2022).

Date: November 26, 2025

Time: 20:00 (GMT+4) 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 **Google Meet** platform. If you are already registered, you do not need to register again. Otherwise, to join the seminar, please send an email to kim@ug.edu.ge or register here:

<https://forms.gle/xfQJ9fg1uqe7CrZw6>.

You will then receive further information.

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

Organizers:

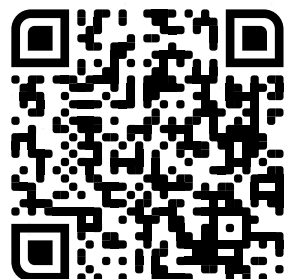
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2. E. Shargorodsky, Department of Mathematics, King's College London, UK
3. A. Meskhi, Kutaisi International University, Kutaisi, Georgia

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Google Meet Join Information

- **Video Call Link:** <https://meet.google.com/fes-ughx-mob>
- **Invitation (Calendar) Link:** <https://calendar.app.google/7GxkYetKVZVAEpcz8>