

Tbilisi Analysis & PDE Seminar



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).

Credit:

<https://www.kcl.ac.uk/people/eugene-shargorodsky>

Talk on November 8:

Speaker: Prof. Eugene Shargorodsky, King's College London, UK,
<https://www.kcl.ac.uk/people/eugene-shargorodsky>

The title of the lecture: “Negative eigenvalues of two-dimensional Schrödinger operators”

Abstract: According to the celebrated Cwikel-Lieb-Rozenblum inequality, the number of negative eigenvalues of the Schrödinger operator $-\Delta - V, V \geq 0$ on $L_2(\mathbb{R}^d), d \geq 3$ is estimated above by

$$\text{const} \int_{\mathbb{R}^d} V(x)^{d/2} dx$$

It is well known that this estimate does not hold for $d = 2$. I will present estimates for the number of negative eigenvalues of a two-dimensional Schrödinger operator in terms of weighted L_1 norms and $L \log L$ type Orlicz norms of the potential obtained over the last decade and discuss related open problems.

Date: November 8, 2021;

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-seminar>

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:

M. Tsaava, Institute of Mathematics, University of Georgia, Tbilisi

Technical support:

Z. Vashakidze, Institute of Mathematics, University of Georgia, Tbilisi

