

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 March 25, 2026**

**Speaker:** Professor **Ingo Witt**, University of Göttingen, Germany;

**E-mail:** [iwitt@mathematik.uni-goettingen.de](mailto:iwitt@mathematik.uni-goettingen.de);

<https://www.uni-math.gwdg.de/iwitt/>

**The title of the lecture:** “**Hyperbolic problems with characteristic boundary of constant multiplicity**”

**Abstract:** We consider  $N \times N$  first-order symmetrizable-hyperbolic systems with characteristic boundary of constant multiplicity  $K$ ,  $K < N$ . For such problems one typically loses regularity in direction normal to the boundary. A notable exception is the totally characteristic case  $K = 0$  (Sakamoto, 1989, Ruan-W., 2024). Following Ohkubo (1981, 1989), we formulate for  $0 < K < N$  a condition such that a loss of regularity in normal direction does not occur. More precisely, we invoke techniques from singular analysis and regard the systems under consideration as edge-degenerate. The condition alluded to is then formulated in terms of a separation condition on the characteristic roots.

Joint work with Ruan Zhuoping (Nanjing University).

**Date:** March 25, 2026

**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](mailto: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:

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

## Secretary:

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

## Technical support:

G. Tutberidze, Institute of Mathematics, University of Georgia, Tbilisi, Georgia

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



## Google Meet Join Information

- **Video Call Link:** <https://meet.google.com/fes-ughx-mob>
- **Invitation (Calendar) Link:** <https://calendar.app.google/7GxkYetKVZVAEpsc8>