

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 December 13, 2022

**Speaker: Luis Castro**, CIDMA - Center for Research and Development in Mathematics and Applications & Department of Mathematics, University of Aveiro, Portugal; https://www.ua.pt/pt/p/10311888

The title of the lecture: "New convolutions generated by Hermite functions and consequent classes of integral operators"

Abstract: We will introduce new convolutions generated by multi-dimensional Hermite functions and study some of their properties. Namely, we will analyse classes of integral operators generated by those convolutions. This will also give rise to the study of the solvability of a general class of integral equations whose kernel depends on four different functions. Additional properties will appear along the way, among which we highlight new Young-type inequalities and factorizations (where the new convolutions take a central role). The talk is based on a joint work with R.C. Guerra (Coimbra, Portugal) and N.M. Tuan (Hanoi, Vietnam).

Date: December 13, 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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