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 20 : 00 local time in Tbilisi.

Talk on June 20, 2022

Speaker: Prof. **Lars-Erik Persson**, UiT The Artic University of Norway; https://www.larserikpersson.se/

The title of the lecture: **"On my life with Hardy and his inequalities"**

Dedication: This lecture is dedicated to the memory of our dear friend, colleague and important collaborator Professor Vakhtang Kokilashvili.

Abstract: First I will describe some background and historical remarks from the beginning of this remarkable story, which started around 100 years ago. After that I will present a fairly new convexity approach to prove Hardy-type inequalities, which was not discovered by Hardy himself and many others, see [1], [2] and [3]. I continue by presenting some selected parts of the story until 2017, where I myself have been involved to some extent, see [1] and [4]. Finally, I present some examples of remarkable new results after 2017, which show that this area is still a source of inspiration for new research. In particular, to also illustrate my close connection to Georgian mathematics I mention some new Hardy-type results we developed and used in our new book [5]. Several open questions are pointed out.

[1] A. Kufner, L.E. Persson and N. Samko, Weighted Inequalities of Hardy Type, World Scientific, Second Edition, New York, London, etc., 2017 (480 pages).

[2] L.E. Persson, Lecture Notes, Collège de France, Pierre-Louis Lions Seminar, November 2015 (48 pages).

[3] C. Niculescu and L.E. Persson, Convex Functions and Their Applications, CMS Books in Mathematics, Springer, Second Edition, 2018 (431 pages)

[4] V. Kokilashvili, A. Meskhi and L.E. Persson, Weighted Norm Inequalities for Integral transforms with Product Kernels, Nova Scientific Publishers, Inc., New York, 2010 (355 pages).

[5] L.E. Persson, G. Tephnadze and F. Weisz, Martingale Hardy Spaces and Summability of Vilinkin-Fourier Series, Springer, New York, to appear 2022 (610 pages).

Date: June 20, 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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3. G. Tephnadze, Institute of Mathematics, University of Georgia, Tbilisi

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