

**The Weizmann Institute of Science
Faculty of Mathematics and Computer Science**

Geometric Functional Analysis and Probability Seminar

Room 1, Ziskind Building
on Thursday, May 23, 2024
at 11:00

Ariel Yadin
BGU

will speak on

Metric functional boundaries of groups

Abstract:

Based on works of Busemann and Gromov, Anders Karlsson has proposed a theory of "metric functionals" on a general metric space, as a replacement for linear functionals when there is no linear structure. For discrete spaces, these identify with "horofunctions". We will discuss some aspects of these objects for "well suited" metrics on discrete groups. We are mainly interested in the interaction between the geometry and the algebraic properties of the group. For example, it seems that metric functionals can be useful in studying the structure of "small" groups, and understanding the existence of (virtual) characters. I am not assuming familiarity with any of the above notions, and plan to properly define everything presented in the talk. This is based on joint works with Liran Ron-George.