APRIL 1 - JULY 15

IMPAN, WARSAW

SIMONS SEMESTER

GEOMETRIC AND ANALYTIC GROUP THEORY

SEMINAR
WEDNESDAY, 08.05.2019
13:00-13:50

ROOM 321
ŚNIADECKICH 8
00-656 WARSZAWA

Zvi Shem Tov (University of British Columbia)

Conjugation invariant norms on linear groups

Abstract: A conjugation invariant norm on an (abstract) group G is a length function which induces a bi-invariant metric on G. Since every compact metric group admits a conjugation invariant norm compatible with its topology, any embedding of G into such a group induces a conjugation invariant norm on G. We say that G has the dichotomy property if every non-discrete conjugation invariant norm on G comes from such an embedding. Our basic example of a group satisfying the dichotomy property is the special linear group, of rank greater than two, over the ring of integers. I will sketch a proof of this result and discuss some consequences of the dichotomy property as well as other variants of this problem. This is a joint work with Yehuda Shalom and Leonid Polterovich.