

Speaker: Hillel Furstenberg (Hebrew University)

Title: Harmonic Functions and Irreducible Affine Representations

Abstract:

For any category one can study representations of a group by automorphisms of objects in the category. We use the term "affine representation" when the category consists of compact convex spaces with the usual affine structure. The representation is "irreducible" if no proper closed convex subset is invariant. We show that each bounded harmonic function in the unit disc gives rise to an irreducible representation of SL(2,R). We expect an abundance of irreducible affine representations for this group. Surprisingly, up to equivalence, there is a unique irreducible representation of this group. If time permits we will discuss briefly what happens for the category of cones. (This is joint work with Benjamin Weiss and Samuel Glaser)