

Abstract: Canonical representations on Hermitian symmetric spaces were introduced by Berezin and Vershik-Gelfand-Graev. There are unitary with respect to some invariant inner product (the Berezin form). The notion of canonical representations can be extended to other classes of semisimple symmetric spaces, for example hyperboloids. the goal of our talk is to define canonical representations for hyperboloids and to determine an interaction of Lie group action of an overgroup and Poisson and Fourier transforms associated with canonical representations.