

Mohamed SELMI

Séparation des représentations par les sur-groupes quadratiques

Abstract. Let π be an unitary irreducible representation of a Lie group G . π defines a moment set I_π , subset of the dual \mathfrak{g}^* of the Lie algebra of G . Unfortunately, I_π does not characterize π .

However, we sometimes can find an overgroup G^+ for G , and associate, to π , a representation π^+ of G^+ in such a manner that I_{π^+} characterizes π , at least for generic representations π . If this construction is based on polynomial functions with degree at most 2, we say that G^+ is a quadratic overgroup for G .

In this paper, we prove the existence of such a quadratic over-group for many different classes of G .