

Abstract

We compute characters of the BMS group in three dimensions. The approach is the same as that performed by Witten in the case of coadjoint orbits of the Virasoro group in the eighties, within the large central charge approximation. The procedure involves finding a Poisson bracket between classical variables and the corresponding commutator of observables in a Hilbert space, explaining why we call this a quantization. We provide first a pedagogical warm up by applying the method to both $SL(2, \mathbb{R})$ and Poincaré groups. As for BMS₃, our results coincide with the characters of induced representations recently studied in the literature. Moreover, we relate the 'coadjoint representations' with the induced representations.