

Philippe JAMING

Distributions that are convolvable with Poisson kernels

Abstract. In this talk, we will characterise all distributions on a homogeneous Lie groups that can be extended via a convolution with a Poisson (type) kernel. To do so, we will take an appropriate definition of convolution of distributions and show that distributions that are convolvable with Poisson kernels are derivatives of appropriately weighted L^1 functions. Moreover, the result of this convolution has all the expected properties (harmonicity, Fatou type theorem...). (This is joint work with E. Damek, J. Dziubanski and S. Pérez-Esteva.)