THE WEAK AMENABILITY QUESTION FOR FOURIER ALGEBRAS

In this talk we focus on the weak amenability question for Fourier algebras. We say that a Banach algebra $A$ is weakly amenable if every bounded derivation from $A$ into its dual $A^*$ is inner. It has been conjectured that the Fourier algebra $A(G)$ is weakly amenable if and only if $G_c$, the connected component of the identity in $G$, is abelian. The aim of this talk is to give a general introduction to the problem and the main ideas of the solution for the general Lie group case. The new ingredient for the solution is a study of the antidiagonal in $G \times G$ and its property of local synthesis for $A(G \times G)$. 