Title: Ergodic multiplication operators on the Fourier algebra.

Abstract: This talk is a follow-up of Alberto Rodriguez's talk *Uniformly ergodic measures on locally compact groups.* In his talk, he discussed the ergodic properties of convolution operators $\lambda_1^0(\mu)f = \mu * f$ where μ is a probability measure on a locally compact Abelian group G and $\lambda_1^0(\mu)$ is seen as an operator on the augmentation ideal $L_1^0(G)$ of the group algebra $L_1(G)$. In this talk we will see how most of these results can be deduced from the ergodic properties of multiplication operators $M_0(\phi)(u) = \phi \cdot u$, where ϕ is an element of the Fourier-Stieltjes algebra $B(G)$ of an amenable locally compact group G and $M_0(\phi)$ is seen as an operator on the augmentation ideal $A_0(G)$ of the Fourier algebra $A(G)$, $A_0(G) = \{u \in A(G)\colon\ u(1) = 0\}$. Our discussion will include the introduction of the algebras $A(G)$ and $B(G)$ and a description of how the arguments required for $M_0(\phi)$ parallel, and how they differ from, those needed for $\lambda_1^0(\mu)$ beyond, of course, the Abelian case where the operators $M_0(\phi)$ and $\lambda_1^0(\mu)$ are unitarily equivalent via Fourier-Stieltjes transforms.

This talk reports on ongoing joint work with Enrique Jordá (UPV, Valencia, Spain) and Alberto Rodríguez (UJI, Castellón, Spain)