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The Eberlein Compactification of the Heisenberg Type Group $\mathbb{Z}\times\mathbb{T}\times\mathbb{T}$

Given a locally compact group G, the *Eberlein compactification* G^e is the spectrum of the uniform closure of the Fourier-Stieltjes algebra B(G). It is a semitopological semigroup compactification and thus a quotient of the weakly almost periodic compactification of G. In this talk we aim to study the Eberlein compactification of the group $\mathbb{Z} \times \mathbb{T} \times \mathbb{T}$ equipped with Heisenberg type multiplication. First, we will see that transitivity properties of the action of $\mathbb{Z} \times \mathbb{T}$ on the central subgroup \mathbb{T} force some aspects of the structure of $(\mathbb{Z} \times \mathbb{T} \times \mathbb{T})^e$ to be quite simple. On the other hand, we will observe that the Eberlein compactification of the direct product group $\mathbb{Z} \times \mathbb{T}$ is large with a complicated structure, and can be realized as a quotient of the Eberlein compactification $(\mathbb{Z} \times \mathbb{T} \times \mathbb{T})^e$.