Représentations irréductibles bornées des groupes de Lie exponentiels

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Abstract. Let $G$ be a solvable exponential Lie group. We characterize all the continuous topologically irreducible bounded representations $(T, \mathcal{U})$ of $G$ on a Banach space $\mathcal{U}$ by giving a $G$-orbit in $\mathfrak{n}^*$ ($\mathfrak{n}$ being the nilradical of $\mathfrak{g}$), a topologically irreducible representation of $L^1(\mathbb{R}^n, \omega)$, for a certain weight $\omega$ and a certain $n \in \mathbb{N}$, and a topologically simple extension norm. If $G$ is not symmetric, i.e., if the weight $\omega$ is exponential, we get a new type of representations which are fundamentally different from the induced representations.