1077-60-2407 **Habib Ouerdiane*** (habib.ouerdiane@fst.rnu.tn), Faculty of Sciences of Tunis, Campus universitaire, 1060 Tunis, Tunis, Tunisia. *Unitarizing measure for the representation of a Lie group.*

Consider a Lie group with a unitary representation into a space of holomorphic functions defined on a domain $\mathcal{D}$ of C and in $L^2(\mu)$, the measure μ is the unitarizing measure of the representation. On finite dimensional examples, we show that this unitarizing measure is also the invariant measure for some differential operators on $\mathcal{D}$. We calculate these operators and we develop the concepts of unitarizing measure and invariant measure for an *OU operator (differential operator associated to the representation)* in the following elementary cases:

A) The commutative groups $(R, +)$ and $(R^* = R - 0, \times)$.

B) The multiplicative group M of 2×2 complex invertible matrices and some subgroups of M.

C) The three dimensional Heisenberg group.

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