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ERRATUM TO THE ARTICLE "BEURLING'S THEOREM FOR NILPOTENT LIE GROUPS" OSAKA J. MATH. 48 (2011), 127–147

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The discussion below represents a correction of an error in the paper "Beurling's theorem for nilpotent Lie groups" Osaka J. Math. **48** (2011), 127–147.

1. Description of the error

The main result of the paper [1] was stated as follows (Theorem 1.3 in [1]):

Theorem 1.1. *Let $G = \exp \mathfrak{g}$ be a connected simply connected nilpotent Lie group. Let f be a function on $L^2(G)$ such that*:

$$\int_{\mathcal{W}} \int_G |f(x)| \, \|\pi_l(f)\|_{HS} e^{2\pi \|x\| \|l\|} |Pf(l)| \, dx \, dl < +\infty. \tag{1.1}$$

Then, $f = 0$ almost everywhere.

Here $\mathcal{W}$ is a suitable cross-section for the generic coadjoint orbits in $\mathfrak{g}^*$, the vector space dual of $\mathfrak{g}$.

The condition (1.1) of this theorem depends on the choice of the bases for which the norm of x in G is defined. We must define the norm of x in G before stating Theorem 1.3. For this we must fix a bases of $\mathfrak{g}$, and then define the norm of x using this bases. In addition, we shouldn't modify this bases throughout the proof of Theorem 1.3. This implies that, Remark 2.5.1 in the paper is not correct.

2. Correction of the error

First of all, Remark 2.5.1 must be deleted. This remark has no consequence for the proof of Theorem 1.3. Secondly, recall that we stated Theorem 1.3 before fixing a strong Malcev bases of $\mathfrak{g}$. Moreover, in the proof of this theorem (Sections 3 and 4 in the paper), we treated two cases, using two different strong Malcev bases of $\mathfrak{g}$. In

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