

**CORRIGENDUM FOR THE PAPER “UNITARY
REPRESENTATIONS OF SUPER LIE GROUPS AND
APPLICATIONS TO THE CLASSIFICATION AND MULTIPLET
STRUCTURE OF SUPER PARTICLES”**

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Professor Hadi Salmasian has drawn our attention a misstatement in Lemma 1 where the correct statement should be $X\mathcal{B} \subset \mathcal{B}$. In the Corrigendum below we insert this correction and a small set of consequent corrections in Lemma 1 as well as Propositions 2 and 3.

We thank professor Salmasian for this.

- (1) P. 222: In item (ii) of Lemma 1, replace “such that $X\mathcal{B} \subset D(X)$ ” with “such that $X\mathcal{B} \subset \mathcal{B}$ ”
- (2) P. 222: In the last statement of Lemma 1, replace “if we only assume that \mathcal{B} is invariant under H and contains a dense set of analytic vectors” with “if we only assume that $\mathcal{B} \subset D(H)$ and contains a dense set of analytic vectors for H ”
- (3) P. 222: In the last paragraph of the proof of Lemma 1, replace “Finally, let us assume that $H\mathcal{B} \subset \mathcal{B}$ and that \mathcal{B} contains a dense set of analytic vectors for H ” with “Finally, let us assume that $\mathcal{B} \subset D(H)$ and that \mathcal{B} contains a dense set of analytic vectors for H ”
- (4) P. 222: In the last paragraph of the proof of Lemma 1, replace “we have $X^{2n}\psi = H^n\psi \in \mathcal{B}$ and $X^{2n+1}\psi \in D(X)$ by assumption, and” with “we have $\psi \in D(X^n)$ for all n by X -invariance of \mathcal{B} , and”
- (5) P. 226, last paragraph before Proposition 2: In item (b)-(vi), replace “ $\rho(X)\mathcal{B} \subset D(\rho(Y))$ for all $X, Y \in \mathfrak{g}_1$ ” with “ $\rho(X)\mathcal{B} \subset \mathcal{B}$ for all $X \in \mathfrak{g}_1$ ”
- (6) P. 227, in the proof of Proposition 2: Before the paragraph beginning with “It remains only to show...”, add the following paragraph: “We now prove that, for all $X \in \mathfrak{g}_1$, the operator $\bar{\rho}(X)$ is odd on $C^\infty(\pi_0)$. If $P_i : \mathcal{H} \rightarrow \mathcal{H}$ is the orthogonal projection onto \mathcal{H}_i , then $P_i\mathcal{B} \subset \mathcal{B}$, and $\rho(X)P_i\psi = P_{i+1 \pmod{2}}\rho(X)\psi$ for all $\psi \in \mathcal{B}$ by item (iii). If $\psi \in C^\infty(\pi_0)$ and (ψ_n) is a sequence in \mathcal{B} such that $\psi_n \rightarrow \psi$ and $\rho(X)\psi_n \rightarrow \overline{\rho(X)}\psi$, then $P_i\psi_n \rightarrow P_i\psi$ and $\rho(X)P_i\psi_n = P_{i+1 \pmod{2}}\rho(X)\psi_n \rightarrow P_{i+1 \pmod{2}}\overline{\rho(X)}\psi$. Thus we have $\overline{\rho(X)}P_i\psi = P_{i+1 \pmod{2}}\rho(X)\psi$, and the claim follows.”
- (7) P. 227, item (i) in the statement of Proposition 2: Replace “so that π , as in Proposition (1), is a representation of \mathfrak{g} in $C^\infty(\pi_0)$ ” with “so that π , as in Proposition 1, restricts to a representation of \mathfrak{g} in $C^\omega(\pi_0)$ ”

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