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Corrigendum

Volume **114**, Number 1 (1988), in the article "Primitive Ideals and Nilpotent Orbits in Type G_2," by T. Levasseur and S. P. Smith, pages 81–105:

It was falsely claimed in 2.6 that $\pi(\mathcal{N}_1)\subseteq\mathcal{N}_2$. We are grateful to P. Torasso for bringing this error to our attention. He pointed out that $X:=X_{\eta_1-\eta_2}+X_{-\eta_3}$ is in $\mathcal{N}_1$ (being conjugate to $X_{\eta_1+\eta_3}+X_{\eta_2}$), but that $\pi(X)=cX_{\alpha_1}+dX_{-\alpha_1}$ $(0\neq c, d\in\mathbb{C})$ is not nilpotent in $\mathfrak{g}_2$ (for the same reason that $\left\{\begin{smallmatrix}0 & c\\ d & 0\end{smallmatrix}\right\}$ is not nilpotent in $sl(2)$).

The "fact" that $\pi(\mathcal{N}_1)\subseteq\mathcal{N}_2$ is only used in the proof of Proposition 2.6. Nevertheless, Proposition 2.6 is true as stated, and a proof is obtained by replacing the first sentence of the old "proof" by the following three sentences.

"Certainly $X_{\eta_1-\eta_2}\in\mathbf{O}_{\min}$, whence $G_2\cdot X_{\eta_1-\eta_2}\subseteq\mathbf{O}_{\min}$. But $\pi(G_2\cdot X_{\eta_1-\eta_2})=G_2\cdot\pi(X_{\eta_1-\eta_2})=G_2\cdot X_{\alpha_1}=\mathbf{O}_8$, so $\dim(G_2\cdot X_{\eta_1-\eta_2})\geqslant 8=\dim\mathbf{O}_{\min}$. Therefore $\overline{G_2\cdot X_{\eta_1-\eta_2}}\subseteq\overline{\mathbf{O}}_{\min}$, and this forces $\pi(\overline{\mathbf{O}}_{\min})=\pi(\overline{G_2\cdot X_{\eta_1-\eta_2}})\subseteq\overline{\pi(G_2\cdot X_{\eta_1-\eta_2})}=\overline{\mathbf{O}}_{\min}$."

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