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Erratum to "Fourier Expansion of Holomorphic Siegel Modular Forms of Genus n along the Minimal Parabolic Subgroup"

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In the proof of Lemma 6.3, it is said "$\Omega_{{}^t u_1 S_1 u_1} = \begin{pmatrix} {}^t u_1 & \\ & 1_{n-j} \end{pmatrix} \Omega_{S_1} \times \begin{pmatrix} u_1 & \\ & 1_{n-j} \end{pmatrix}$ with some $u_1 \in U_j(\mathbb{Q})$". But this is not true in general. Hence Lemma 6.3 is incorrect, thus Theorem 6.4 and Corollary 6.5 are also incorrect. In order to rectify this, we define the set $\tilde{\Omega_{S_1}}$ as the quotient of Ω_{S_1} by an equivalence relation

$$S \sim S' \Leftrightarrow {}^t u\, S u = S' \quad \exists u \in U_n(\mathbb{Z}),$$

where note that in the original definition of $\tilde{\Omega_{S_1}}$, $U_n(\mathbb{Z})$ is replaced by $U_n(\mathbb{Q})$. Then we restate Lemma 6.3 as

LEMMA (Corrected version of Lemma 6.3).

$$\bigcup_{T_1 \in \Omega_j(S_1)} \Omega_{T_1} = \bigcup_{T \in \tilde{\Omega_{S_1}}} \Omega_n(T).$$

In the proof of Lemma 6.3, replace Ω_{R_1}, $\cup_{T_1 \in \mathfrak{M}_j(S_1)} \Omega_j(T_1)$ and $U_j(\mathbb{Q})$ by Ω_{T_1}, $\Omega_j(S_1)$ and $U_j(\mathbb{Z})$ respectively. Then we obtain a proof for this corrected lemma. According to it, Theorem 6.4 and Corollary 6.5 shoud be restated as

THEOREM (Corrected version of Theorem 6.4).

$$\sum_{T_1 \in \Omega_j(S_1)} \phi_{T_1}(Z_2, Z_3) \exp(2\pi\sqrt{-1}\,\mathrm{Tr}\, T_1 Z_1) = \sum_{T \in \tilde{\Omega_{S_1}}} C_T \Theta_T(Z).$$

COROLLARY (Corrected version of Corollary 6.5). *When $j = 1$, one obtains*

$$\phi_{S_1}(Z_2, Z_3) \exp 2\pi\sqrt{-1}\,\mathrm{Tr}\, S_1 Z_1 = \sum_{T \in \tilde{\Omega}_{S_1}} C_T \Theta_T(Z).$$

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