

***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  $\Omega_{S_1}$  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  $\Omega_{R_1}$ ,  $\cup_{T_1 \in \mathfrak{M}_j(S_1)} \Omega_j(T_1)$  and  $U_j(\mathbb{Q})$  by  $\Omega_{T_1}$ ,  $\Omega_j(S_1)$  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 should be restated as

THEOREM (Corrected version of Theorem 6.4).

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

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

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

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