The sentence on lines -3 to -2 of [BH, p. 7] should read as follows: The bundle $H$ is trivial, because any $\varphi(0) \in H(0)$ extends to a section $\varphi \in H$ satisfying $\varphi(s, g) = \varphi(0, g)H(g)^s$, where $H(g)$ is the height function defined before [GJ, (3.3)].

2. On line 3 of [BH, p. 8], the right hand side should read, in accordance with [GJ, (3.15)],

$$2\pi \int_0^\infty \int_{K^* \times A^1} \int_K \varphi_1 \left( iy, \begin{pmatrix} a & 0 \\ 0 & 1 \end{pmatrix} k \right) \varphi_2 \left( iy, \begin{pmatrix} a & 0 \\ 0 & 1 \end{pmatrix} k \right) dk \, da \, dy.$$

3. Lines -11 to -9 of [BH, p. 11] should read as follows: By [BrMo, §4], the functions $\tilde{W}_{q/2, R} \varphi(\nu)$ ($q \in \mathbb{Z}$) form an orthonormal basis of the Hilbert space $L^2(\mathbb{R} \times y)$ which justifies our normalization:

$$L^2(\mathbb{R} \times y) = \bigoplus_{q \equiv \kappa (\mod 2)} \mathbb{C} \tilde{W}_{q/2, R} \varphi, \quad \langle \tilde{W}_{q/2, R} \varphi, \tilde{W}_{q'/2, R} \varphi \rangle = \delta_{q, q'}.$$  

4. On line -7 of [BH, p. 30], we stated incorrectly that any element $g \in GL_2(\mathbb{A})$ can be written as

$$g = z \tilde{\gamma} \begin{pmatrix} y & x \\ 0 & 1 \end{pmatrix} (\tilde{k}_\infty \times \tilde{k}_\text{fin})$$

for some $z \in Z(\mathbb{A})$, $\tilde{\gamma} \in GL_2(K)$, $\tilde{k}_\infty \times \tilde{k}_\text{fin} \in SO_2(K_\infty) \times K(\kappa_\pi)$, and $\begin{pmatrix} y & x \\ 0 & 1 \end{pmatrix} \in P(\mathbb{A})$, where $y = y_\infty \times y_\text{fin}$ is such that all coordinates of $y_\infty$ exceed $\delta$ and $y_\text{fin}$ takes values from a finite set depending only on $K$ and $\kappa_\pi$. Instead, we can only deduce that

$$g = z \tilde{\gamma} \begin{pmatrix} y' & x' \\ 0 & 1 \end{pmatrix} \times h (\tilde{k}_\infty \times \tilde{k}_\text{fin}),$$

where $\begin{pmatrix} y' & x' \\ 0 & 1 \end{pmatrix} \in P(K_\infty)$ with $y'_1, \ldots, y'_d > \delta$, and $h \in GL_2(\mathbb{A}_\text{fin})$ takes values from a finite set depending only on $K$ and $\kappa_\pi$. That is, our mistake was to assume that the matrices $h$ are upper triangular.

As we shall explain below, the weaker statement suffices for the proof of Lemma 5 in [BH]. More precisely, we shall show that if $g$ is decomposed as above and $\phi \in V_{\pi, q}(\kappa_\pi)$ is arbitrary, then

$$|\phi(g)| \ll_{\pi, K} \|\phi\| \sum_{r \in R \atop r \neq 0} |\tilde{W}_{q/2, R} (ry')|,$$

where $R \in I(K)$ is a fractional ideal depending only on $K$ and $\kappa_\pi$. From here the argument can be finished as on [BH, p. 31], with the only change that $y_\infty$ and $(y_\text{fin}^{-1})$ are replaced by $y'$ and $R$.

If $g$ is decomposed as above, then

$$\phi(g) = \psi \begin{pmatrix} y' & x' \\ 0 & 1 \end{pmatrix},$$
where $\psi$ denotes the right $h$-translate of $\phi$. We shall regard this as a value of the Hilbert modular form
\[(x_1 + iy_1, \ldots, x_d + iy_d) \mapsto \psi \left( \begin{pmatrix} y & x \\ 0 & 1 \end{pmatrix} \right), \quad y \in K_\infty^\times, \quad x \in K_\infty.\]

Analogously to [BH, (30)], there is a Fourier decomposition
\[
\psi \left( \begin{pmatrix} y & x \\ 0 & 1 \end{pmatrix} \right) = \sum_{r \in R, r \neq 0} \rho_\psi(r) \tilde{W}_{q/2, \nu_\pi}(ry)(r^{\sigma_1}x_1 + \cdots + r^{\sigma_d}x_d), \quad y \in K_\infty^\times, \quad x \in K_\infty,
\]
where $R \in I(K)$ is a fractional ideal depending only on $K$ and $\epsilon_\pi$. By the normalization of the Whittaker function, the coefficients $\rho_\psi(r)$ remain unchanged if $\psi$ is replaced by any of its nonzero Maaß shifts. In particular, if $\tilde{\psi}$ denotes the nonzero Maaß shift of $\psi$ of minimal weight $\tilde{q} \in \mathbb{Z}^d$, then
\[
\tilde{\psi} \left( \begin{pmatrix} y & x \\ 0 & 1 \end{pmatrix} \right) = \sum_{r \in R, r \neq 0} \rho_\psi(r) \tilde{W}_{\tilde{q}/2, \nu_\pi}(ry)(r^{\sigma_1}x_1 + \cdots + r^{\sigma_d}x_d), \quad y \in K_\infty^\times, \quad x \in K_\infty,
\]
where the function $\tilde{W}_{\tilde{q}/2, \nu_\pi}$ now depends only on $\pi$ and $K$. We shall use this observation to prove the uniform bound $\rho_\psi(r) \ll_{\pi, K} \|\phi\|$, which then implies our claim above:
\[
|\phi(g)| = \left| \psi \left( \begin{pmatrix} y' & x' \\ 0 & 1 \end{pmatrix} \right) \right| \leq \sum_{r \in R, r \neq 0} |\rho_\psi(r) \tilde{W}_{\tilde{q}/2, \nu_\pi}(ry')| \ll_{\pi, K} \|\phi\| \sum_{r \in R, r \neq 0} |\tilde{W}_{\tilde{q}/2, \nu_\pi}(ry')|.
\]

Our starting point is the Plancherel identity
\[
\sum_{r \in R, r \neq 0} |\rho_\psi(r) \tilde{W}_{\tilde{q}/2, \nu_\pi}(ry)|^2 = \int_{K_\infty/R^0} \left| \tilde{\psi} \left( \begin{pmatrix} y & x \\ 0 & 1 \end{pmatrix} \right) \right|^2 dx,
\]
where $R^0$ denotes the dual lattice of $R \subset K_\infty$. We keep a single $r \in R$ on the left hand side, and then integrate both sides over
\[
\mathcal{F}(r) := \left\{ y \in K_\infty^\times \mid |y_j| > 1/|r^{\sigma_j}| \right\},
\]
with respect to the measure $dy/y^2$. We obtain
\[
|\rho_\psi(r)|^2 |\mathcal{N}r| \ll_{\pi, K} \int_{(K_\infty/R^0) \times \mathcal{F}(r)} \left| \tilde{\psi} \left( \begin{pmatrix} y & x \\ 0 & 1 \end{pmatrix} \right) \right|^2 \frac{dx \, dy}{y^2}.
\]
By a standard argument (cf. [Iw, Lemma 2.10]), the Siegel set $(K_\infty/R^0) \times \mathcal{F}(r)$ covers each point in a fixed fundamental domain for $\psi$ with multiplicity $\ll_{\pi, K} |\mathcal{N}r|$, hence
\[
|\rho_\psi(r)|^2 \ll_{\pi, K} \|\tilde{\psi}\|^2 = \|\psi\|^2 = \|\phi\|^2.
\]
The desired bound $\rho_\psi(r) \ll_{\pi, K} \|\phi\|$ follows.

5. In lines -5 to -1 of [BH, p. 32], the ideal classes should be understood in the narrow sense, while the generator $\gamma$ and the product $r_1 r_2$ should be totally positive. Along with this change, the Kuznetsov formula [BH, (92)] should be corrected as follows: on the left hand side the restriction $\varepsilon = 1$ should be omitted, and on the right hand side the summation over $U/U^2$ should be restricted to $U^+/U^2$. A detailed proof of the corrected formula appears in [Ma1] for a wide class of test
functions including the ones we need [BH, (95)]. The proof is similar to what we outlined on [BH, p. 33–35], but the analysis is carried out on the larger space

\[
FS := L^2(GL_2(K)Z(Kim) \setminus GL_2(A)/K(\omega)) = \bigoplus_{\omega \in \hat{C}(K)} L^2(GL_2(K) \setminus GL_2(A)/K(\omega), \omega).
\]

In particular, whenever we refer to \( L^2(GL_2(K) \setminus GL_2(A)/K(\omega), \omega) \) in [BH], it should be understood as \( L^2(GL_2(K) \setminus GL_2(A)/K(\omega), \omega) \). Accordingly, each restriction \( \varepsilon_\pi = 1 \) or \( \varepsilon_\varpi = 1 \) should be disregarded in the text, e.g. the notation preceding [BH, Theorem 2] should read

\[
\int_{(c)} f_\omega \ d\varpi := \sum_{\pi \in C(c)} f_\pi + \int_{\varpi \in E(c)} f_\omega \ d\varpi.
\]

Then [BH, Lemma 6] and [BH, Theorems 2–3] remain valid, and for the latter we do not need to assume that \( \pi_1 \) and \( \pi_2 \) have the same signature character, cf. [BH, Remarks 11 & 13].

6. In lines -10 to -9 of [BH, p. 45], all five occurrences of \( c \) should be \( t \), see [Ma2] for a detailed proof.

**References**


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1In retrospect, our mistake was to treat the group \( O_2(K_{im}) \) as if it were commutative, leading us to the false belief that the finite subgroup \( T \) acts by scalars on any \( \pi \in C(\epsilon) \) and \( \varpi \in E(\epsilon) \).