CORRIGENDA FOR
HOPF ALGEBRAS AND CONGRUENCE SUBGROUPS
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Abstract. During the production of the Memoir “Hopf Algebras and Congruence Subgroups”, typographical errors were introduced that were not present in the version submitted by the authors. The production staff at the American Mathematical Society regrets these mistakes.

As a consequence of an incorrect handling of the source file, the published version of ‘Hopf Algebras and Congruence Subgroups’ by Yorck Sommerhäuser and Yongchang Zhu, Memoirs of the American Mathematical Society, Number 1028, Volume 219, September 2012, contains in five places, described below, the same error: The symbol ‘1’ was mistakenly replaced by ‘$\chi_R(u^{-1})$’. These five places are the following:

1. In the proof of Proposition 2.3 on page 20, line 10, it reads: For $x = \chi_R(u^{-1})$, this yields $\rho_D(S_D(u_D^{-1})) = \rho(\Lambda)$, which we can resubstitute in order to establish one of the claimed identities. Rather, it should read: For $x = 1$, this yields $\rho_D(S_D(u_D^{-1})) = \rho(\Lambda)$, which we can resubstitute in order to establish one of the claimed identities.

2. In the proof of Corollary 8.3 on page 83, line 20, it says: ...that the first class sum $z_1$ is equal to $\chi_R(u^{-1})$, we get ... Rather, it should read: ...that the first class sum $z_1$ is equal to 1, we get ...

3. In the proof of Theorem 9.3, page 92, lines 6 to 9, it says: ...together yield that $\mathcal{S}(e_1) = \frac{1}{\dim(H)}\chi_R(u^{-1})$. For an element $g \in \Gamma(N)$, this gives $g.1 = \dim(H)g.1 = \dim(H)\mathcal{S}(s^{-1}g).e_1 = \dim(H)s.e_1 = \chi_R(u^{-1})$ since $\Gamma(N)$ is a normal subgroup. If we now substitute $z' = \chi_R(u^{-1})$ in Corollary 9.2, we get that $g.z = z$ for every $z \in Z(D)$ and every $g \in \Gamma(N)$. This passage contains the above-mentioned mistake three times, namely on each of the lines 6, 7, and 8. Correctly, this passage should read:
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...together yield that \( \mathcal{S}(e_1) = \frac{1}{\dim(H)} \). For an element \( g \in \Gamma(N) \), this gives
\[
\begin{align*}
g.1 &= \dim(H) gs. e_1 = \dim(H) s^{-1} gs. e_1 = \dim(H) s. e_1 = 1
\end{align*}
\]
since \( \Gamma(N) \) is a normal subgroup. If we now substitute \( z' = 1 \) in Corollary 9.2, we get that \( g.z = z \) for every \( z \in Z(D) \) and every \( g \in \Gamma(N) \).

(4) On page 108, line 29, the last line of Paragraph 11.4 reads:
...to \( z_1 = \chi_R(u^{-1}) \) by Corollary 5.2.
Rather, it should read:
...to \( z_1 = 1 \) by Corollary 5.2.

(5) In the proof of Theorem 11.5 on page 108, line 3 from below, it reads:
Now we know from Lemma 10.1 and Corollary 11.4 that \( \sigma_q.1 = 1 = \vartheta(q) \chi_R(u^{-1}) \),...
Rather, it should read:
Now we know from Lemma 10.1 and Corollary 11.4 that \( \sigma_q.1 = 1 = \vartheta(q).1 \),

Again, the production staff at the American Mathematical Society would like to apologize for introducing these mistakes into the manuscript.