M. Aschbacher and G. Seitz
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CORRECTIONS TO "INVOLUTIONS IN CHEVALLEY GROUPS OVER FIELDS OF EVEN ORDER"

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M. ASCHBACHER AND G. SEITZ

p. 1, delete the last sentence on the page.

p. 4, In (3.1) (ii) replace "$U_{\alpha+\beta}(st)$" by "$U_{\alpha+\beta}(st)$, $U_{\alpha+\beta}((st)^q)$, $U_{\alpha+\beta}(st^q)$, or $U_{\alpha+\beta}(s^q t)$, the answer depending on $\{\alpha, \beta\}$."

p. 17, matrix Q at bottom of page should be: "$Q = \begin{bmatrix} b & \beta \\ \gamma & L \end{bmatrix}$."

p. 21, add the following term to the right side of the equation on top of page:

"$\alpha(g^2_{i,n-\ell-1} + g^2_{i,n-\ell})$, where $\alpha = 0$ if $\varepsilon = 1$ and as in § 5 if $\varepsilon = -1$."

p. 22, (8.8) (1) (i) should read: "$\tau_i^2 = Q(Y_i)$ for $1 \le i \le n - 2\ell$, where τ is the last column of P."

p. 36, ℓ. 9, all sentence: For the remainder of this section assume $G \not\cong S_z(q)$ or ${}^2F_4(q)'$.

p. 36, ℓ. 17, delete "or if $G \cong {}^2F_4(q)$."

p. 36, ℓ. 19, replace "$m = 1$" by "$m = 7$".

p. 38, ℓ 22, delete ${}^2F_4(q)$

p. 52, (14.2) (iii) should read: "$C_G(v) \le P_2$"

(14.3) (ii), replace "$q + 1$" by "$(q + 1)/(3, q + 1)$"

(14.3) (iii), replace with:

"(iii) $C_G(v) = \bar{U}_0\bar{L}_0$ with $\bar{U}_0 = O_2(C_G(v))$ of order q^{27} and $\bar{L}_0 \cong L_2(q) \times U_3(q)$. Moreover $[\bar{U}_0, \bar{U}_0, \bar{U}_0] = U_{r_8}U_{r_{24}}$ and $P = Z(C_G(v)) = \{U_\alpha(c)U_\beta(c) : c \in F_q\}$. Finally $[\bar{U}_0, \bar{L}_0] = \bar{U}_0$ and $C_G(v)' = \bar{U}_0\bar{L}_0'$."

(14.4) should read: "For $q > 2$ there is an element $h \in H$ such that $PP^h = U_\alpha \times U_\beta$ contains $q - 1$ conjugates of t, q^{-1} conjugate of u, and $(q - 1)^2$ conjugates of v."

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p. 58–59, (15.5) (i) replace "$SL(6, q)$" by "$PSL(6, q)$"
(15.5) (iii) replace "$SL(3, q)$" by "$PSL(3, q)$".
p. 76, (19.1) replace "$C_G(\sigma)$" by "$O^{2'}(C_G(\sigma))$".

Remarks 1) The changes are all straightforward with the exception of those in (14.2) (iii) and (14.3) (iii), where we sketch a proof. Let notation be as in § 14 and set

$$\bar{U}_0 = \langle U_0, U_{r_{11}}(d)U_{r_2}(d + d^q), U_{r_{21}}(d)U_{r_{15}}(d + d^q) : d \in F_{q^2}\rangle$$
$$\bar{L}_0 = \langle U_{\pm\alpha_1}\rangle \times \langle s_4, U_{-\alpha_3}(c)U_{\alpha_3+\alpha_4}(c^q)U_{\alpha_4}(e) : c, e \in F_{q^2},\ e + e^q = cc^q\rangle .$$

Easy computations (using (3.1) as corrected) show that $\bar{U}_0 = C_{Q_2}(v)$, $\bar{L}_0 \leq C(v)$, $[\bar{U}_0, \bar{U}_0] = Q_2^2Q_3^2$, and $[\bar{U}_0, \bar{U}_0, \bar{U}_0] = Q_3^2 = U_{r_8}U_{r_{24}}$. Clearly $X = \bar{U}_0\bar{L}_0 \leq P_2$. Also $\bar{L}_0 \cong U_3(q)$ and $Q_2\bar{L}_0$ is the centralizer in P_2/Q_2 of $vQ_3^2 \in Q_2^2Q_3^2/Q_3^2$. From here get $X = C_{P_2}(v)$.

(14.3) (iii) now follows from (14.2) (iii) and the proof of this is much easier than the original arguments. Indeed suppose $X \leq P_i^g$. Then P_i^g contains an $L_2(q) \times U_3(q)$ section and so $i \neq 3$. If $i \neq 2$, $\bar{U}_0 \not\leq O_2(P_i^g)$ as the latter group has class 2, so a proper parabolic subgroup of $P_i^g/O_2(P_i^g)$ contains an $L_2(q) \times U_3(q)$ section. This is impossible, so $i = 2$. But then $\bar{U}_0 \leq O_2(P_2^g)$ and $Q_3^2 = (Q_3^2)^g$. This forces $g \in P_2$ as $P_2 = N_G(Q_3^2)$.

2) The change in (15.5) (iii) results in a shorter proof of (15.4) (iii). This is evident once all occurrences of $L_0 \cong SL(3, q)$ on pages 56–57 are replaced by $L_0 \cong PSL(3, q)$.

3) The changes here do not affect the results in [2]. The only change required is that in the definition of *degenerate*, just preceding (8.4), omit the case $\bar{A} = {}^2E_6(q)$.

University of Oregon