Errata for ‘Unitary Reflection Groups’

Gustav I. Lehrer and Donald E. Taylor

5 February, 2025

Page 2, *line* 6	The citation should be to **210**, not **209**.
Page 16, *line* 7	Change ‘M of V’ to ‘of V’.
Page 21, *line* 15	Change ‘$\mu(A)w\Sigma = \Sigma$’ to ‘$\mu(A)W\Sigma = \Sigma$’.
Page 23, *line* 11	Change ‘primitive group’ to ‘a primitive group’.
Page 24, *line* -4	Change $g.h := (h_{g(1)}, h_{g(2)}, \ldots, h_{g(n)})$ to $g.h := (h_{g^{-1}(1)}, h_{g^{-1}(2)}, \ldots, h_{g^{-1}(n)})$.
Page 26, *line* -2	Proposition 2.10 should read: If $n > 1$, then $G(m,p,n)$ is an imprimitive unitary reflection group. If $m > 1$, then $G(m,p,n)$ is irreducible except when $(m,p,n) = (2,2,2)$.
Page 29, *line* -16	Change ‘then H is conjugate to’ to ‘then $m \geq 4$ and H is conjugate to’.
Page 49, *line* -6	Change ‘by g’ to ‘by G’.
Page 49, *line* -5	Change ‘hence $gP = P$’ to ‘hence $gP = P$ for all $g \in G$’.
Page 55, *lines* $-1, -2$	The index i runs from 0 to k. That is, the sentence should read: ‘The k^{th} graded component of $M \otimes N$ is $\bigoplus_{i=0}^{k} M_i \otimes N_{k-i}$ and so the coefficient of t^k in $P_{M\otimes N}(g,t)$ is $\sum_{i=0}^{k} \operatorname{trace}(g, M_i) \operatorname{trace}(g, N_{k-i})$.’
Page 72, *lines* $13 \cdots 16$	Change to: ‘Given $T \in U_2(\mathbb{C})$, put $q := T(1)$. Then $q \in S^3$, $R(q)T$ fixes 1 and hence leaves its orthogonal complement $\mathbb{C}j$ invariant. Consequently $R(q)T(j) = \alpha^2 j$ for some $\alpha \in \mathbb{C}$. In fact $\alpha \in S^1$ because $R(q)T$ preserves the hermitian form. Thus $T = L(\alpha)R(q^{-1}\alpha)$.’
Page 84, *line* 13	Change ‘where m is the exponent of G’ to ‘for some m’.
Page 104, *line* -13	Include: ‘and let $B_n^{(k)}$ be the line system for the group $G(k,1,n)$’.
Page 104, *line* -4	Change ‘$n \geq 4$’ to ‘$n \geq 5$’.
Page 139, *line* 9	**Additional explanation:** If V_λ were H-invariant, then V_λ would be a sum of isotypic components of the H-module V. Since H is a normal subgroup of G, the images of V_λ under the action of G would be a system of imprimitivity for G.
Page 154, *line* -8	Change ‘$\ell \in S$’ to ‘$\ell \in \mathfrak{L}$’.
Page 157, *line* -7	Change ‘$u.v \in L$’ to ‘$u, v \in L$’.
Page 164, *line* 13	Change ‘$W(\mathcal{N}_4$’ to ‘$W(\mathcal{N}_4)$’.

Page 166, *line* 15	Add the sentence 'By construction, the group $G(3,3,6)$ is a subgroup of $W(\mathcal{K}_6)$ and therefore $W(\mathcal{K}_6)$ contains a central element of order 6.'
Page 172, *line* -7	In the summation, change '$k=0$' to '$k=1$'.
Page 172, *line* -1	Change 'Lemma 4.14' to 'Theorem 4.14'.
Page 174, *line* 6	Change 'Lemma 9.8' to 'Lemma 9.7'.
Page 211, *line* -9	Change the display to $$0 = P_0 \subsetneq P_1 \subsetneq \cdots \subsetneq P_r \subsetneq S/\mathcal{I}(A) = \mathbb{C}[A]$$
Page 236, *line* 16	Change 'occurrences of 1' to 'occurrences of ζ'.
Page 269, *line* -10	Change 'Harish–Chandra' to 'Harish-Chandra'.
Page 277, *line* 13	Remove '$\mathcal{D}_3^{(3)} \perp \mathcal{A}_2$' from the entry for $\mathcal{K}_5$.
Page 249, *line* 2	In order for Corollary A.10 to hold we need to specify that R is an *affine domain*; that is, R is an integral domain which is finitely generated as a K-algebra, where K is a field.
Page 249, *line* -6	Replace '$\dim N$' with '$\dim R'_N$'.
Page 249, *line* -5	Replace '$\dim M$' with '$\dim R_M$'.
Page 249, *line* -2	Replace 'R_0' with 'R''.
Page 281, *line* -16	Replace '1985' with '2003'.