Revisions to first printing (1990):
Reflection Groups and Coxeter Groups

Throughout the book, captions for tables and figures should be simplified by removing the chapter number, to be consistent with the way they are referred to in the text. For example, on page 4, read "Figure 1" in place of "Figure 1.1", and on page 98, read "Table 1" in place of "Table 4.1". Relevant page numbers: 4, 32, 33, 34, 44, 59, 80, 96, 98, 135, 141, 142.

0 On page preceding title page, line 2, read "He assumes that the reader ..."

12 In the statement of part (c) of Lemma 1.6, read: $w^{-1}\alpha > 0$.

13 Exercise 2 should conclude ": the number of pairs $i < j$ for which $\pi(i) > \pi(j)$".

19 In line 24, read 1.7 (not 1.6).

22 In line 3, read "positive" (not "nonnegative").

23 In lines 9, 11, 19 only, replace W' by W^0.

23 Replace Exercise 2 by the following: "If $U \subset D$ in part (d) of the theorem, then the subgroup of W fixing U pointwise is generated by simple reflections."

42 In lines 3 and 10, replace $\pm\varepsilon \pm \varepsilon_j$ by $\pm\varepsilon_i \pm \varepsilon_j$.

42 In line 11, replace $\_n - 1$ by α_{n-1}.

54 In line -6, replace "It turn" by "In turn".

68 In line -6, replace 2^{n-1} by $(-2)^{n-1}$.

70 Line following proof of Proposition 3.13 should read: "We shall use part (c) right away in 3.15, while part (a) is needed again in 3.19."

73 In the last line, the denominator of the term after the equality sign should be $(1-t)^{n-|I|}$.

82 Exercise 2 should begin: "If h is even and $w = s_1 \cdots s_n$ is a Coxeter element, set $z := w^{h/2}$. Show that z is the longest element $w_\circ$ of W (relative to Δ) ..."

83 In line 19, refer to Lemma 3.16, not Corollary 3.19.

88 In the last line, read "We saw in 4.1 that"

95 In line 7 of 4.7, read "through".

97 The result in 4.9 should be labelled Theorem rather than Proposition.

99 In Exercise 1, replace "proposition" by "theorem".

110 In lines 6–8 of the exercise, read: "It must be shown that no element of $S'' := S \setminus S'$ is conjugate to s. Define $f : S \to \{1, -1\}$ by $f(S') = 1, f(S'') = -1$."

119 In line 5, remove space after left parenthesis: "(On the other hand ..."

122 In the proof of part (a) of the proposition, read "If $i_q = r$" in place of "If $i_1 = 1$"; read "if $i_q \neq r$, then w' is itself" in place of "if $i_1 \neq 1$, then w is itself".

131 Lines 2–3 should read: "Since a discrete subgroup of a compact Hausdorff group is closed (hence finite), $W \cong \sigma(W)$ is finite."

132 The first line of the statement of Lemma 6.4 should end as follows: "with E a finite dimensional vector space over $\mathbf{R}$."

132 The proof of part (a) of Lemma 6.4 should begin: "Start with any positive definite symmetric bilinear form β ..."; also, omit the factor $\frac{1}{|G|}$ in the definition of $\overline{\beta}$.

132 The first line of the proof of part (b) of Lemma 6.4 should end: "relative to the positive definite form $\overline{\beta}$ constructed in (a)".

142 Seventh diagram for $n = 5$ should have one edge labelled 4.

154 In lines 7 and 8, replace the three occurrences of q by p.

161 In line -6, replace $a(s, v)$ by $a(x, v)$ and $a(s, w)$ by $a(x, w)$. In line -5, replace $(1 - q)$ after the equality sign by $(q^{-1} - 1)$. In line -4, replace T_q by T_1.

163 At the bottom of the page, add to the final paragraph the sentence: "More recently, F. du Cloux has created an interactive program *Coxeter*, allowing the user to compute Kazhdan–Lusztig polynomials and related data for Weyl groups of rank ≤ 6."

171 Page number at bottom not legible.

182 Line 3 should be: "$\{s, s'\} \approx \{s, s''\}$ if $m(s', s'')$ is odd."

203 In place of index entry "crystallographic 39", there should be two entries: "crystallographic group 38" and "crystallographic root system 39". The entry for "irreducible Coxeter system" should list two page numbers: 30, 129.

Updated references

Bédard [3]: close gap after *Comm.*

Boe–Collingwood [1], *Comm. Algebra* **18** (1990), 947–1032.

Deodhar [11], **36** (1990), 95–119.

Douglass [1], *Comm. Algebra* **18** (1990), 371–387.

Dyer [3], *J. Algebra* **135** (1990), 57–73.

Dyer [4], *Compositio Math.* **78** (1991), 185–191.