Corrections to
Representation Theory of Semisimple Groups**:**
An Overview Based on Examples
Chapters I to XVI and the Three Appendices

In the corrections below, allowance needs to be made for the difference between the typesetting process for the book and the typesetting process for this file. The book used Times fonts, and this file uses Computer Modern fonts.

Page 8, line 3. Change "G" to "$\mathfrak{g}$".

Page 8, first displayed line. Change "$(\theta g)^{-1} g$" to "$(\Theta g)^{-1} g$".

Page 8, line -2. Change
"Therefore" to "It follows that".

Page 9, line 1. Change "for all real t" to
"for all real t; the reason is that a nontrivial linear combination of m distinct exponential functions $e^{c_i t}$ cannot vanish at $t = 0, 1, \ldots, m-1$, as a consequence of the nonsingularity of the Vandermonde matrix built from the numbers c_i.

Page 14, line 4. Change "representations theory" to "representation theory".

Page 14, line -10. Change "Lie group." to "Lie group".

Page 17, line 15. Change "$\Phi\overline{(\chi_\tau)}$" to "$\Phi(\overline{\chi_\tau})$".

Page 17, line 17. Change "the" to "then".

Page 30, line -6. Change "$\pi(v)$" to "$\pi(e)v$".

Page 44, line -4. Change "$\{F : \mathbb{R}^2 E_v F(x, y)$" to "$E_v F(x, y)$".

Page 56, equation (3.16). Change "$\varphi(X)$" to "$\bar{\varphi}(X)$".

Page 59, line -9. Change "Problem 6" to "Problem 7".

Page 59, line -7. Change "7 and 13" to "8 and 13".

Page 61, line 16. Change "f" to "f".

Page 65, line 8. Change "matrices" to
"matrices, and the Cartan involution θ is given by -1 on $\mathfrak{g}$ and $+1$ on $i\mathfrak{g}$".

Page 73, last line of proof of (e). Change "apply the first statement to (a)" to
"apply the first statement to $-\alpha$".

Page 79, line 3 of proof of Lemma 4.8. Change "$\Big(\sum_{j \neq i} \Big(-\frac{2\langle \alpha_i, \alpha_j \rangle}{|\alpha_i|^2}\Big) - c_i\Big)$" to
"$\Big(\sum_{j \neq i} \Big(-\frac{2c_j\langle \alpha_i, \alpha_j \rangle}{|\alpha_i|^2}\Big) - c_i\Big)$".

Page 81, line 7 of proof of Proposition 4.12. Change
"Hence $\langle v, \gamma \rangle = 0$. That is, s_γ is in W_0" to
"Hence $\langle v, \gamma \rangle = 0$, and the definition of the reflection s_γ shows that s_γ is in W_0".

Page 83, lines 21 and 22. Change "$\varepsilon_1 + i\varepsilon_2$ by the scalar $-i$ and on $\varepsilon_1 - i\varepsilon_2$ by the scalar $+i$" to
"$\varepsilon_1 + i\varepsilon_2$ by the scalar $+i$ and on $\varepsilon_1 - i\varepsilon_2$ by the scalar $-i$".

Page 83, line 22. Change "$\mathbb{R}^m$" to "$\mathbb{C}^m$".

Page 87, line 2 of proof of Theorem 4.21. Change "Since A_0 is open in A, $\bigcup_{n=-\infty}^{\infty} g^n A_0 = A$. By compactness" to
"Since $S \subseteq A_0 \subseteq A$, $\bigcup_{n=-\infty}^{\infty} g^n A_0 = A$. Since A_0 is open in A, the compactness of A shows that".

Page 88. Replace the proof of Corollary 4.25 by the following:
"*Proof.* Let $\varphi : \widetilde{G} \to G$ by the quotient homomorphism, let Z be the kernel, let $\widetilde{T}$ be a maximal torus of $\widetilde{G}$, and let $T = \varphi(\widetilde{T})$. Corollary 4.24 shows that $\varphi\big|_{\widetilde{T}}$ has kernel Z. Consequently the mapping φ^* of the group $\widehat{T}$ of multiplicative characters into the group $\widehat{\widetilde{T}}$ given by $\varphi^*(\chi) = \chi \circ \varphi$ is a one-one homomorphism such that the index of $\varphi^*(T)$ in $\widehat{\widetilde{T}}$ is at most the order $|Z|$ of Z. On the other hand, if σ is any character of Z, then $\mathrm{ind}_Z^{\widetilde{T}}$ is not trivial, and it follows from Theorem 1.14 that some multiplicative character τ of $\widetilde{T}$ has $\tau\big|_Z = \sigma$. Consequently the index of $\varphi^*(T)$ in $\widehat{\widetilde{T}}$ is at least $|Z|$. Therefore it equals $|Z|$. Application of Proposition 4.13 translates this conclusion into the desired conclusion about analytically integral forms."

Page 89, line 2. Change "(4.10)" to "(4.15)".

Page 95, line 3 of proof of Proposition 4.34a. Change "$U(\mathfrak{g}^{\mathbb{C}}) = U(\mathfrak{n}^-)v$" to "$U(\mathfrak{g}^{\mathbb{C}})v = U(\mathfrak{n}^-)v$".

Page 99, last 5 lines. Change "W" to "R" in 4 places, and change "w" to "r" in 7 places.

Page 100, line 1. Change "$\mathfrak{g}W$" to "$\mathfrak{g}R$".

Page 100, line -8. Change "$\langle \lambda, \delta \rangle >$" to "$\langle \lambda, \delta \rangle \geq$".

Page 102, line -4. Change "$\exp rH_\delta$" to "$\exp irH_\delta$".

Page 111, Problem 13. Change "$v = \sum_{\mu+\mu'=\lambda''} (v_\mu \otimes v_{\mu'})$, and choose" to
"$v = \sum_{\mu+\mu'=\lambda''} (v_\mu \otimes v_{\mu'})$, allowing multiple terms indexed by each μ, and choose".

Page 115, line 1 of Proposition 5.6. Change "linear connected reductive group" to
"linear connected reductive group with compact center".

Page 115, line 5 of proof of Proposition 5.6. Change "because that" to
"because the".

Page 115, lines 7 to 9 of proof of Proposition 5.6. Change "Then Proposition 5.5 in this setting implies that $G^{\mathbb{C}}$ is closed. Hence it is closed in its original setting" to
"A second obstruction to applying Proposition 5.5 is the need to show that $G_1^{\mathbb{C}}$ has compact center. To examine the center of $G_1^{\mathbb{C}}$, we apply Proposition 1.2 to $G_1^{\mathbb{C}}$, realized as a subgroup of $GL(2n, \mathbb{R})$. If we write the Cartan decomposition of $(\mathfrak{g}^{\mathbb{C}})_1$

as $(\mathfrak{g}^{\mathbb{C}})_1 = \mathfrak{k}_1 \oplus \mathfrak{p}_1$ with $\mathfrak{k}_1 = (\mathfrak{g}^{\mathbb{C}} \cap \mathfrak{k}_1) \oplus (Z_{\mathfrak{g}_1^{\mathbb{C}}} \cap \mathfrak{k}_1)$ and $\mathfrak{p}_1 = (\mathfrak{g}^{\mathbb{C}} \cap \mathfrak{p}_1) \oplus (Z_{\mathfrak{g}_1^{\mathbb{C}}} \cap \mathfrak{p}_1)$, and if we write K_1 for the analytic subgroup with Lie algebra $\mathfrak{k}_1$, then Proposition 1.2 shows that K_1 is compact and the map $K_1 \times \mathfrak{p}_1 \to G_1^{\mathbb{C}}$ given by $(k, X) \to k \exp X$ is a diffeomorphism onto $G_1^{\mathbb{C}}$. It follows that the image of $K \times (\mathfrak{g}^{\mathbb{C}} \cap \mathfrak{p}_1)$ is closed in $G_1^{\mathbb{C}}$. Since this image is a subgroup containing $G^{\mathbb{C}}$ and since $G^{\mathbb{C}}$ is dense in $G_1^{\mathbb{C}}$, we conclude that $Z_{\mathfrak{g}_1} \cap \mathfrak{p}_1 = 0$. Then $G_1^{\mathbb{C}}$ has compact center, and Proposition 5.5 is applicable. The proposition shows that $G^{\mathbb{C}}$ is closed in $G_1^{\mathbb{C}}$, and hence $G^{\mathbb{C}} = G_1^{\mathbb{C}}$. Thus $G^{\mathbb{C}}$ is closed in $GL(2n, \mathbb{R})$".

Page 117, line -8. Change "on $\mathfrak{p}$" to "on $\mathfrak{g}$".

Page 121, line 2. Change "$\operatorname{Ad}(k)\mathfrak{a} \subseteq \mathfrak{a}_1$" to "$\operatorname{Ad}(k)\mathfrak{a} \supseteq \mathfrak{a}_1$".

Page 123, line -4. Change "$E'_{-\lambda} = \theta E_\lambda$" to "$E'_\lambda = \dfrac{1}{\operatorname{Re} B_0(E_\lambda, \theta E_\lambda)}\, \theta E_\lambda$".

Page 124, line 2. Change
"$\Big(\operatorname{ad} \dfrac{\pi}{2}(E_\lambda + \theta E_\lambda)\Big)\Big(\dfrac{\pi}{2}(E_\lambda + \theta E_\lambda)\Big) = -\tfrac{1}{2}\pi^2 H'_\lambda$" to
"$\Big(\operatorname{ad} \dfrac{\pi}{2}(E_\lambda + \theta E_\lambda)\Big)\Big(\dfrac{\pi}{2}(E_\lambda - \theta E_\lambda)\Big) = -\tfrac{1}{2}\pi^2 H'_\lambda$".

Page 124, line 3. Change
"$\Big(\operatorname{ad} \dfrac{\pi}{2}(E_\lambda + \theta E_\lambda)\Big) H'_\lambda = \pi(E_\lambda - \theta E_\lambda)$" to
"$\Big(\operatorname{ad} \dfrac{\pi}{2}(E_\lambda + \theta E_\lambda)\Big) H'_\lambda = -\pi(E_\lambda - \theta E_\lambda)$".

Page 124, line 4. Change
"$\Big(\operatorname{ad} \dfrac{\pi}{2}(E_\lambda + \theta E_\lambda)\Big)^2 H'_\lambda = \pi^2 H'_\lambda$" to
"$\Big(\operatorname{ad} \dfrac{\pi}{2}(E_\lambda + \theta E_\lambda)\Big)^2 H'_\lambda = -\pi^2 H'_\lambda$".

Page 124, line 6. Change "4.40" to "4.41".

Page 124, line -1. Change "4.41" to "4.42".

Page 125, line 21. Change "4.40" to "4.41".

Page 125, line -3. Change "of $\mathfrak{a}$ that" to "of $\mathfrak{a}'$ that".

Page 126, lines 5 to 7. Change "Since $\operatorname{Ad}(\exp 2X)$ is positive definite on $\mathfrak{g}$, its Hermitian logarithm $\operatorname{ad} 2X$ is a polynomial in $\operatorname{Ad}(\exp 2X)$" to
"Since $\operatorname{Ad}(\exp 2X)$ is positive definite on $\mathfrak{g}$, its distinct eigenvalues are of the form $e^{c_1}, \dots, e^{c_n}$ with $c_1, \dots, c_n$ real and distinct, and any polynomial P that carries each e^{c_j} into c_j has the property that $\operatorname{ad} 2X = P(\operatorname{Ad}(\exp 2X))$".

Page 127, line -3. Change "$x_{\sigma(1)\cdots\sigma(k-1),\,1\,2\cdots k} \neq 0$" to "$x_{\sigma(1)\cdots\sigma(k-1)s,\,1\,2\cdots k} \neq 0$".

Page 128, line 3. Change "$\sigma^{-1} > j$" to "$\sigma^{-1}(i) > j$".

Page 129, line 8. Change "4.41" to "4.42".

Page 131, lines 9 and 10. Change "is conjugate to some member of" to
"belongs to".

Page 135, lines 1 and 2. Change
"It is clear that $K \cap MAN = K \cap M$ and therefore that the A and N components of (5.11) are well defined" to
"Since M_0 is linear connected reductive with compact center, it has an Iwasawa decomposition, and the components of any element lie in M_0. The equality $M = Z_K(\mathfrak{a}_0)M_0$ shows that the same thing is true for M. If $k = man$ is an element of $K \cap MAN$, then $m = k(an)^{-1}$ yields the expansion according to the Iwasawa decomposition, and we conclude from $M \cap AN = \{1\}$ that $(an)^{-1} = 1$. Hence $K \cap MAN = K \cap M$, and therefore the A and N components of (5.11) are well defined".

Page 142, between lines 2 and 3. Insert the paragraph
"*Remark*. The **positive Weyl chamber** $\mathfrak{a}^+$ is the Weyl chamber on which the members of Σ^+ are positive."

Page 143, line 13. Change "analytically integral on $(\mathfrak{m}^{\mathbb{C}})'$" to
"analytically integral in $(\mathfrak{m}^{\mathbb{C}})'$".

Page 144, line 10. Change "4.31" to "4.32".

Page 145, line -6. Change "$\widetilde{X}$ is a complex-linear" to "$\widetilde{X}$ is complex linear".

Page 148, Problem 10c. Change "representative" to "representation".

Page 156, lines 1 and 2. Change "as a consequence of facts about parabolic subgroups," to
"as a consequence of Lemma 5.11 and the properties $\Theta N \cap MAN = \{1\}$ and $MA \cap N = \{1\}$ of parabolic subgroups MAN".

Page 156, line -8. Change "From §5.7 we have" to
"The Iwasawa decomposition of $K^{\mathbb{C}}$ shows that".

Page 158, line 3. Change "means that E_{γ_i} and $E_{\pm\gamma_j}$ commute for $i \neq j$" to
"means that E_{γ_i} and $E_{\pm\gamma_j}$ commute for $i \neq j$. In fact, expansion of the bracket $[E_{\gamma_i} - \theta E_{\gamma_i}, E_{\gamma_j} - \theta E_{\gamma_j}]$ yields a sum of four terms, and the nonzero such terms are linearly independent; since the sum of the terms is 0, all the terms must be 0".

Page 161, line -6. Change "Corollary 1.9" to "Corollary 1.10".

Page 161, line -2. Change "Corollary 1.9" to "Corollary 1.10".

Page 172, line 8. Change "Proposition 5.1" to "Proposition 7.1".

Page 181, line -6. Change "$|F(\kappa(x\bar{n})|$" to $|F(\kappa(x\bar{n}))|$".

Page 183, line -11. Change "$\sigma(m(\kappa(\bar{n}))$" to "$\sigma(m(\kappa(\bar{n})))$".

Page 196, statement of Theorem 7.22, line 8. Change "'$S = MAN'$" to
"$S' = MAN'$".

Page 196, statement of Theorem 7.22, line 9. Change "$\mathfrak{g}_\alpha \subseteq \theta\mathfrak{n} \cap \mathfrak{n}'$" to
"$\mathfrak{g}_{-\alpha} \subseteq \theta\mathfrak{n} \cap \mathfrak{n}'$".

Page 196, equation (7.71b). Change "$H_{\mathfrak{p}} = H + H_M$" to
"$H_{\mathfrak{p}} = H + (H_M \circ \mu)$".

Page 196, equation (7.71d). Change "$= (\lambda + \rho_M)H_M(x)$" to
"$= (\lambda + \rho_M)H_{\mathfrak{p}}(x)$".

Page 197, line 12. Change "$H_M(\mu(xk_M\bar n)$" to "$H_M(\mu(xk_M\bar n))$".

Page 202, Problem 11b. Change "$e^{2(\nu-\rho)\log a_0}$" to "$e^{-2(\nu-\rho)\log a_0}$".

Page 207, line 20. Change "K" to "$\widehat{K}$".

Page 208, line 8. Change "$\dim\tau]$" to "$\dim\tau$".

Page 221, line 12. Change "4.34c" to "4.35a".

Page 221, line 13. Change "4.39" to "4.40".

Page 221, lines 16 to 18. Replace the proof by the following argument:
"In view of Proposition 5.3, there is no loss of generality in assuming that $\mathfrak{g}^{\mathbb{C}}$ is the complexified Lie algebra of a compact Lie group. Let λ be analytically integral and dominant for Δ^+, let V be a finite-dimensional irreducible representation of $\mathfrak{g}$ with highest weight λ (Theorem 4.28), and let $\chi(z)$ for z in $Z(\mathfrak{g}^{\mathbb{C}})$ be the scalar by which z acts in V (Corollary 8.14). Temporarily, let us drop the subscript $\mathfrak{n}$ from γ'. By Theorem 4.41 and Proposition 4.9 any other positive system of roots is related to Δ^+ by a member of $W(\Delta)$. Thus let w be in $W(\Delta)$, and let $\widetilde{\gamma}'$ and $\widetilde{\gamma}$ be defined relative to $\Delta^{+\sim}=w\Delta^+$. We are to prove that $\gamma=\widetilde{\gamma}$. The highest weight of V relative to $w\Delta^+$ is $w\lambda$. If z is in $Z(\mathfrak{g}^{\mathbb{C}})$, then the action of z on a highest weight vector gives

$$\lambda(\gamma'(z))=\chi(z)=w\lambda(\widetilde{\gamma}'(z)). \tag{8.26+}$$

Since the previous step shows that $\gamma(z)$ is invariant under $W(\Delta)$,

$$\begin{aligned}(w\lambda+w\delta)(\gamma(z))&=(\lambda+\delta)(\gamma(z))=\lambda(\gamma'(z))\\ &=w\lambda(\widetilde{\gamma}'(z))=(w\lambda+w\delta)(\widetilde{\gamma}(z)),\end{aligned}$$

the next-to-last step following from (8.26+). Since $\gamma(z)$ and $\widetilde{\gamma}(z)$ are polynomial functions equal at the lattice points of an octant, they are equal everywhere."

Page 227, line 5. Change "8.14" to "8.15".

Page 227, line -13. Change "$uf(a)=$" to $uF(a)=$".

Page 230, line 8. Change "A_j" to "$A_j=(g_j(\iota(a))+h_j(\iota(a))\mathrm{Ad}(a^{-1}))C_j$".

Page 230, line -9. Insert "(8.42)" at end of line.

Page 230, line -2. Change "$\mu'_{\Sigma^+}(Z)$" to "$D_\tau(\mu'_{\Sigma^+}(Z))$".

Page 232, line 4. Change "$\sum_{j=1}^{r}$" to "$\sum_{j=1}^{p}$".

Page 235, line 3 of Theorem 8.33. Change "$w\Lambda\big|_{\alpha_{\mathfrak{p}}}$" to "$w\Lambda\big|_{\mathfrak{a}_{\mathfrak{p}}}$".

Page 239, line 12. Change "$=X(e^{(-\nu+\rho)H(x)}\pi(\kappa(x))^{-1}v)_{x=k}$" to
"$=X(l(e^{(-\nu+\rho)H(x)}\pi(\kappa(x))^{-1}v))_{x=k}$".

Page 242, line 17. Change "K" to "$\widehat{K}$".

Page 242, line -10. Change "K" to "$\widehat{K}$".

Page 244, line 4 of proof of Corollary 8.42. Change "K" to "$\widehat{K}$".

Page 244, line 5 of proof of Corollary 8.42. Change "dimension on" to "dimension in".

Page 244, proof of Corollary 8.42. Replace the last two of the four paragraphs of the proof by the following:

"If F is a finite subset of $\widehat{K}$, let $E_F = \sum_{\omega\in F} E_\omega$. Since f is K-finite, we can choose a finite set F large enough so that $E_F f = f$. With such an F fixed, we show that any closed nonzero G-invariant subspace U of V has $E_F U \neq 0$. In fact, if $E_F U = 0$ and $U' = V \cap U^\perp$, then U' is a G-invariant subspace of V such that $E_F U' = E_F V$. Since $E_F f = f$, f is in $E_F V = E_F U' \subseteq U'$. The G-invariance of U' then forces $V \subseteq U'$, and we find that $U = 0$, contradiction. We conclude that $E_F U \neq 0$.

"It follows that if $V = U_1 \oplus \cdots \oplus U_p$ exhibits V as an orthogonal sum of nonzero G-invariant subspaces, then $E_F U_j \neq 0$ for each j and $\dim E_F V \geq p$. On the other hand, the admissibility of V shows that $\dim E_F V$ is finite. Thus such integers p are bounded. We can therefore choose a decomposition with p as large as possible, and for this decomposition the summands must be irreducible. This completes the proof the corollary."

Page 245, line 2 of Corollary 8.43. Change "K" to "$\widehat{K}$".

Page 250, line -1. Change "$\alpha(H)$" to "$\alpha(H)^q$".

Page 253, line -14. Change " it follows from Corollary 8.41 that" to "it follows, by using Corollary 8.41 on each side of a matrix coefficient f and by changing the derivatives so that they act on the members of $\mathcal{H}$, that".

Page 255, line 1 of Lemma 8.49. Change "$\mathfrak{a}'_\mathfrak{p}$" to "$\mathfrak{a}_\mathfrak{p}$".

Page 260, line -9. Change "$(U(\bar{S}_\mathfrak{p}, \sigma, \tilde{\nu})$" to "$U(\bar{S}_\mathfrak{p}, \sigma, \tilde{\nu})$".

Page 268, line 3 of proof of Lemma 8.55. Change "$\varepsilon(w-v_0)$ is in $(\mathfrak{a}'_\mathfrak{p})^+$ by convexity. For such ε" to "$\varepsilon(w-v_0)$ is in $\overline{(\mathfrak{a}'_\mathfrak{p})^+}$ by convexity. For such ε with $0 < \varepsilon < 1$".

Page 268, line 4 of proof of Lemma 8.55. Change "$\geq$" to "$>$".

Page 273, line -8. Change "$U(\bar{S}, \omega, -\tilde{\nu})$" to "$U(\bar{S}, \omega, -\bar{\nu})$".

Page 295, line 16. Change "$\tilde{D}(e^{-\nu H(g^{-1}x)})_{g=1}$" to "$\tilde{D}(e^{-\nu H(g^{-1}x)})_{g=g}$".

Page 305, equation (9.40). Change "$= \exp(-\frac{1}{2}X)p_0(\exp(-\frac{1}{2}X)$" to "$= \exp(-\frac{1}{2}X)p_0 \exp(-\frac{1}{2}X)$".

Page 306, line 7. Change "For both (i) and (ii)" to "For both (a) and (b)".

Page 307, line -6. Change "$f_1^*(k^*, g_0) = f^*(k^*, g_0) =$" to "$f_1^*(k^*, g_0) = f^*(k^* g_0) =$".

Page 318, line -1. Change "let be" to "let $\tilde{\Theta}$ be".

Page 319, lines 14 to 26. Change "Θ" to "$\tilde{\Theta}$" in 6 places.

Page 322, line -1. Change "$= \sum\limits_{i,j}$" to "$(\mathcal{L}(k_\mathbb{C})\varphi)(g_\mathbb{C}) = \sum\limits_{i,j}$".

Page 334, line 4. Change "$\sum_{\tau\in K}$" to "$\sum_{\tau\in\widehat{K}}$".

Page 338, line -1. Change "These are" to "There are".

Page 352, line 2 of remark with Lemma 10.17. Change "±1" to "$+1$".

Page 353, line 5. Change "$|W(T_k{:}G)^{-1}$" to "$|W(T_k{:}G)|^{-1}$".

Page 359, line -14. Change "$\dfrac{\xi_\delta(t)+\xi_\delta(t)^{-1}}{\xi_\delta(t)+\xi_\delta(t)^{-1}}$" to "$\dfrac{\xi_\delta(t)+\xi_\delta(t)^{-1}}{\xi_\delta(t)-\xi_\delta(t)^{-1}}$".

Page 398, line -6. Change "$= +\frac{1}{2}\int_T$" to "$+\frac{1}{2}\int_T$".

Page 400, line 7. Change "$-\dfrac{1}{2}[F_f^T(-a_0)+F_f^T(-a_0)]$" to "$-\dfrac{1}{2}[F_f^T(a_0)+F_f^T(-a_0)]$".

Page 415, display (11.52). Change "$\operatorname{support}\beta_\varepsilon \subseteq \operatorname{support}\Psi_\varepsilon \subseteq$" to "$\operatorname{support}\beta_\varepsilon \subseteq$".

Page 418, line 3. Change "$E'_{-\beta} = -\theta E_\beta$" to "$E'_{-\beta} = \theta E'_\beta$".

Page 418, line 4. Change "$i(E'_{-\beta} - E'_{-\beta})$" to "$i(E'_\beta - E'_{-\beta})$".

Page 419, line 2. Change "F_f^B" to "DF_f^B".

Page 420, line 4. Change "$\exp\dfrac{\pi}{4}\Big(E'_{-\alpha} - E'_\alpha\Big)$" to "$\exp\dfrac{i\pi}{4}\Big(E'_{-\alpha} - E'_\alpha\Big)$".

Page 429, display (12.8). Change "$\sup\limits_{k\in K}\{e^{-\rho_{\mathfrak p}H_{\mathfrak p}(y^{-1}k)}\}$" to "$\sup\limits_{k\in K}\{e^{-\rho_{\mathfrak p}H_{\mathfrak p}(y^{-1}k)}\}\varphi_0^G(x)$".

Page 438, display (12.23). Change "$=$" to "$\le$".

Page 442, line 9. Change "$Z_{S\cup\{j\}}$" to "$z_{S\cup\{j\}}$".

Page 445, line 17. Change "$(\varphi\operatorname{ad}Y)(Y)$" to "$\varphi(\operatorname{ad}Y)$".

Page 445, line 18. Change "$(\varphi\operatorname{ad}Y)(Y)$" to "$\varphi(\operatorname{ad}Y)$".

Page 449, line -1. Change "$\sup\limits_a |(1+\|a\|)^r e^{\rho\log a} g(a)\|$" to "$\sup\limits_a |(1+\|a\|)^r e^{\rho\log a} g(a)|$".

Page 458, line -11. Change "$g(x) = h(x^{-1})$ and $g'(x) = h(x^{-1})$" to "$g(x) = h(x^{-1})$ and $g'(x) = h'(x^{-1})$".

Page 462, line 5. Change "$\lambda' = \lambda + \mu + \sum_{\alpha\in\Delta^+} m_\alpha \alpha$" to "$\lambda' = \lambda + \mu + \delta_n - \delta_K + \sum_{\alpha\in\Delta^+} m_\alpha\alpha$".

Page 463, line 17. Change "$2(H_\delta - \delta(H_\delta)$" to "$2(H_\delta - \delta(H_\delta))$".

Page 464, line -18. Change "$|\delta|_K|^2$" to "$|\delta_K|^2$.

Page 471, line -12. Change "to the irreducible" to "to be irreducible".

Page 472, line 7. Change "and λ is nonsingular. Fix a positive" to "and λ is singular. Fix any positive".

Page 473, line -4. Change "$\xi|_{\mathfrak b^-} - \delta_M$" to "$\xi_{\lambda|_{\mathfrak b^-}-\delta_M}$".

Page 480, line 5. Change "$\alpha = \beta$" to "$\alpha - \beta$".

Page 485, line 1. Change "Theorem 11.7" to "Theorem 11.17".

Page 486, line 4. Change "constant c" to "constant c_G".

Page 491, line −11. Change "$\sum_{w\in W(B^-:M)}$" to "$\sum_{s\in W(B^-:M)}$".

Page 491, line −10. Change "$\sum_{w\in W(B^-:M)}$" to "$\sum_{s\in W(B^-:M)}$".

Page 498, line 6 of Example 2. Change "$\{e_1 - e_2, 2e\}$" to "$\{e_1 - e_2, 2e_2\}$".

Page 498, line −7. Change "$s_{2e_2}w$" to "$s_{2e_2}w\lambda$".

Page 498, line −4. Change "$= c(w,\lambda,\{2e_1\}$" to "$= c(w,\lambda,\{2e_1\})$".

Page 505, line −16. Change "conjugates by W_M." to "conjugates by W_M.)"

Page 507, line 2. Change "B and T be Cayley transform" to
"B and T by Cayley transform".

Page 510, line −2. Change "$\Theta_{\lambda_{M_2},i\nu_2}$" to "$\Theta^*_{\lambda_{M_2},i\nu_2}$".

Page 511, line 11. Change "$\Theta_{\lambda_{M_\mathfrak{p}},i\nu}$" to "$\Theta^*_{\lambda_{M_\mathfrak{p}},i\nu}$".

Page 515, line 12. Change "Lemma 8.53 is a first hint" to
"Lemma 7.23 is a first hint".

Page 516, line 11. Change "α" to "ρ".

Page 516, line 16. Change "α" to "ρ".

Page 516, line 23. Change "α" to "ρ".

Page 516, line −3. Change "$eU(w)^{-1}f,g)$" to "$eU(w)^{-1}f,g)]$".

Page 517, lines 7 and 8. Change "bound. We restrict ν to a narrower strip with $|\mathrm{Re}\,\nu| \le \nu_0 < \rho$ and consider" to
"bound near $\nu = 0$. Consider".

Page 520, line 22. Change "Theorem 13.4" to "Theorem 13.5".

Page 521, line 11. Change "$\alpha_F = \sum_{\tau\in F} d_\tau \chi_\tau$" to "$\alpha_F = \sum_{\tau\in F} d_\tau \overline{\chi_\tau}$".

Page 522, line 16. Change "is isometric" to
"is a nonzero multiple of an isometry".

Page 523, line 2. Change "d_σ" to "d_σ^2".

Page 523, line 3. Change "d_σ" to "d_σ^2".

Page 523, line 5. Change "$= \sum_{i,j}$" to "$= d_\sigma \sum_{i,j}$".

Page 523, line 6. Change "$= \sum_{i,j} (Th_i, Th_j)_{\mathcal{H}_F}(h_j,h_i)_{\mathcal{H}_F} = \|T\|^2_{\mathrm{HS}}$" to
"$= d_\sigma \sum_{i,j} (Th_i, Th_j)_{\mathcal{H}_F}(h_j,h_i)_{\mathcal{H}_F} = d_\sigma\|T\|^2_{\mathrm{HS}}$".

Page 525, line after "by (14.13)". Change "$h_i(k_1^{-1}\kappa(xk)\mu(xk)e^{(\bar\nu-\rho)H(xk)})_{V^\sigma}$" to
"$e^{(\bar\nu-\rho)H(xk)}\sigma(\mu(xk))^{-1}h_i(k_1^{-1}\kappa(xk)))_{V^\sigma}$".

Page 526, line 6 of proof of Proposition 14.4. Change "Theorem 8.3a" to "Theorem 8.38a".

Page 526, line 9. Insert period at end of display.

Page 542, line 13. Change "that $k = l$ and $a_0 + b_0 = 0$" to "that $k = l$ and $a_0 + b_0 = 0$ or else $k \le 0$ and $l \le 0$".

Page 547, running head. Change "14.7" to "14.25".

Page 550, line 5. Change "(14.48)" to "(14.49)".

Page 550, line 12. Change "$d\nu$" to "$dx\, d\nu$".

Page 552, line −15. Change "Theorem 14.15" to "Theorem 14.16".

Page 554, line −8. Change "$\mathbf{f}_\nu^{(S)} * \psi_T(m)$" to "$\mathbf{f}_\nu^{(S)} * \psi_T(m_0)$".

Page 676, line −8. Change "mainfold" to "manifold".

Page 691, line 5. Change "existance" to "existence".

Page 691, line 9. Change "$= \dfrac{\partial A_i}{\partial z_j} +$" to "$= \dfrac{\partial A_i}{\partial z_j}\, w +$".

Page 700, line −12. Change "$-\dfrac{\cosh t}{(\sinh t)^2}\, B_1 F(t) B_2$" to "$-\dfrac{2\cosh t}{(\sinh t)^2}\, B_1 F(t) B_2$".

Page 716, line −14. Change "$\mathbb{R}^{q-1} \oplus$ semisimple if $p = q$" to "$\mathbb{R}^{q-1}$ if $p = q$".

Page 723, line 1. Change "Theorem 4.44" to "Theorem 4.45".

Page 724, lines 18 and 19. Change "Problems 22 to 25" to "Problems 18 to 21".

Page 735, line −6. Change "with notation as in Theorem 12.17" to "with notation as at the start of §1 and in Theorem 12.7".

Page 738, line −7. Change "(14.19)" to "(14.29)".

Page 751. The citation "Griffiths and Schmid [1969]" having been mentioned in the Notes on page 736, the following item needs to be added to the list of references:

Griffiths, P., and W. Schmid, Locally homogeneous complex manifolds, *Acta Math.* 123 (1969), 253–302.

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