Comments and corrections to '*Complex Variables. An Introduction*', Carlos A. Berenstein and Roger Gay

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The numbering of the pages follows that of the first edition, Springer-Verlag, Graduate Texts in Mathematics **125**, New York, 1991. The numbering of the lines within each page is such that displayed equations are counted on a different line from the one just preceding them. Please send additions, corrections and suggestions to `acaicedo@math.berkeley.edu`.

p. 2 l. 15. Replace "$\overline{\mathcal{L}_{\mathbb{C}}(\mathbb{C}}$" with "$\overline{\mathcal{L}_{\mathbb{C}}(\mathbb{C})}$".

p. 2 l. -7. Replace "correpsonds" with "corresponds".

p. 2 l. -4. Replace "Rieman" with "Riemann".

p. 3 l. -2. Replace "space $\mathbb{R}$-linear" with "space of $\mathbb{R}$-linear".

p. 8 l. -5. Replace "necesssary" with "necessary".

p. 12 l. 10. Replace "$d(\gamma^* w)$" with "$d(\gamma^* \omega)$".

p. 16 ll. 6, 7. Replace "is contained in" with "coincides with".

p. 16 l. 10. Open the paragraph with "See the beginning of Section 2.2 for an example of such a sequence."

p. 19 l. 13. Replace "$\frac{9}{10}\|x_0 - x_m\| \leq \frac{2}{10} d(x_m)$" with "$\frac{9}{10}\|x_0 - x_m\| < \frac{2}{10} d(x_m)$".

pp. 21, 22. Exercise 1.3.*5 aims to build a sequence without appeal to Zorn's lemma. It must be pointed out that the construction of the sequence outlined in the Exercise requires the use of a weak version of the axiom of choice, known as *dependent choice*, DC. This form of choice is customarily invoked in the development of most parts of analysis, including the theory of Lebesgue measure.

p. 22 l. -2. Replace "$\psi_q(\zeta)$" with "$\psi_p(\zeta)$".

p. 38 ll. 7, 8. Replace "$\omega_V - (\theta|V)$" with "$\omega_V + (\theta|V)$".

p. 41 l. 4. Replace "§5.1.14" with "§1.5.14".

p. 42 ll. 16–26. Replace "$f|B =$" with "$f|\partial B =$".

In *(iii) the wording of the problem is a bit confusing: There are C^∞ functions f from a neighborhood of $\bar{B}$ into ∂B: $f(re^{i\theta}) = e^{i\pi r \sin\theta}$ is an example. It is not clear to me what the question is asking.

In *(v) replace "(iii)" with "(iv)".

This Exercise is more doable after §1.6, where it is proven that nonvanishing continuous functions on simply connected domains admit continuous logarithms, and the notion of homotopy is introduced. I suggest to move it to §1.6, and change it as follows (see Munkres's *Topology. A first course*):

Instead of *(iii), ask: "Show that if we remove the assumption that $f(z) = z$ for all $z \in \partial B$ it must still be the case that $f(z) = z$ for *some* $z \in \partial B$. (Hint: Otherwise, $-f|\partial B$ is homotopic to $\mathrm{id}_{\partial B}$ in $\mathbb{C}^*$. Show that $\mathrm{id}_{\partial B}$ is not homotopic to a constant map, but $-f|\partial B$ is.)"

p. 43 l. 12. Replace "the $\alpha(\beta\gamma)$" with "then $\alpha(\beta\gamma)$".

p. 46 l. 2. Replace "$]\gamma]$" with "$[\gamma]$".

p. 47 l. 3. Close the paragraph with "(See the proof of §1.6.27.)"

p. 50 l. -8. Replace "$\eta < 2\pi$" with "$\eta < \pi$".

p. 51 l. 15. Replace "$[0, \varepsilon_0]$" with "$[0, \varepsilon_0[$".

p. 52 l. 2. Replace "liefting" with "lifting".

p. 52 l. 9. Replace "endpoint" with "endpoints".

p. 55 l. 1. Replace "less" with "class".

p. 55 l. 18. Replace "that $\mathbb{C}^*$" with "that in $\mathbb{C}^*$".

p. 56 l. 9. Replace "$]0, \infty[$" with "$[0, \infty[$".

p. 61 l. -1. Replace "promitives" with "primitives".

p. 68 l. -6. Replace "[Tr]" with "[Tv]".

p. 68 ll. -11–-8. In **l. -11** replace "$\mathrm{Ind}_\gamma(a) = 1$" with "$\mathrm{Ind}_\gamma(a) = 1$ or $\mathrm{Ind}_\gamma(a) = -1$". Add the following at the end of **l. -8**: "We say that γ is positively oriented when $\mathrm{Ind}_\gamma(a) = 1$ for $a \in \mathrm{Int}(\gamma)$. For piecewise-$C^1$ Jordan curves α as in Remark 1.8.4., (4) and using the notation there, this corresponds to the vector u pointing outward, i.e., to $\Omega_1 \subseteq \mathrm{Int}(\alpha)$."

p. 69 l. 14. Replace "$|g(\alpha(t))]$" with "$|g(\alpha(t))|$".

p. 70 l. -17 and p. 71 l. 3. Replace "Rouche" with "Rouché".

p. 73 l. 16. Replace "$\sigma|[e_2, e_0]$" with "$\sigma|[e_0, e_2]$".

p. 76 l. 3. The diagram is slightly inaccurate: Formally, it does not make sense to apply λ on all of $Z_1(\Omega;\mathbb{Z})$. Replace

$$\begin{array}{ccc} Z_1(\Omega;\mathbb{Z}) & \xrightarrow{\lambda} & \pi_1(\Omega;z_0) \\ & & \Big\downarrow \varphi \\ & & \pi_1/[\pi_1,\pi_1] \end{array}$$

with

$$\begin{array}{ccc} Z_1(\Omega;\mathbb{Z}) \supset S_1(\Omega) & \xrightarrow{\lambda} & \pi_1(\Omega;z_0) \\ & \searrow^{\mu} & \Big\downarrow \varphi \\ & & \pi_1/[\pi_1,\pi_1] \end{array}$$

p. 76 l. -5. Replace "$\lambda(\sigma_{u_i}) = \alpha_{u_i}(0)$" with "$\lambda(\sigma_{u_i}) = \alpha_{u_i(0)}$".

p. 80 ll. 11, 12. Replace "1-boundary δ" with "1-boundary $\delta = \partial\sigma$", and "$\mathbb{C} \setminus \operatorname{supp}\delta$" with "$\mathbb{C} \setminus \operatorname{supp}\sigma$".

p. 82 l. -1. Replace "rctangle" with "rectangle".

p. 85 l. -1. In Figure 1.24 replace "c_j^1" with "c_j^2" inside the third triangle from left to right.

p. 86 l. 17. Replace "$Q \cap \operatorname{Image}(\alpha) \neq \emptyset$" with "$Q \cap \operatorname{Image}(\alpha) = \emptyset$".

p. 86 ll. 26, 27. The argument presented so far is incomplete. By replacing Ω with the component $\Omega_{\varepsilon,i}$ which contains α, the problem has been reduced to prove the result when Ω is union of squares in a tiling. But this union need not be finite, so the induction argument does not directly apply.

What we do is we argue that a set $U = \bigcup_{n<N} U_n$ (here, N can be an integer or ∞) can be formed such that:

1. $U_1 \subset U_2 \subset \cdots$
2. Each U_n is union of n squares $Q_1, \ldots, Q_n$ of the tiling (possibly taking away some of their sides).
3. For each n, U_n and $S^2 \setminus U_n$ are connected.
4. $U \subseteq \Omega_{\varepsilon,i}$.
5. $\operatorname{Image}(\alpha) \subset U$.

Clearly, this argument, together with the one provided in the book, complete the proof.

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p. 87 l. -1. A beautiful proof of the Jordan Curve Theorem 1.8.5 can be given now, see [Pom], §1.5 (pp. 31–34). The key topological argument, Janiszewski's theorem, rests on the fact that if Ω is an open subset of the plane such that $S^2 \setminus \Omega$ is connected and $0 \notin \Omega$, then there is a continuous branch of $\log z$ defined in Ω. This follows from 1.6.28 and 1.10.1.

p. 92 l. -10. Replace "$\frac{h(z) - h(z)}{z - z_0}$" with "$\frac{h(z) - h(z_0)}{z - z_0}$".

p. 95 l. -12. Replace "$\mathrm{Re}\, \mathrm{g}(z_0)$" with "$\mathrm{Re}\, g(z_0)$".

p. 96 l. 8. Replace "$(n \sqrt[n]{z} - 1$" with "$n(\sqrt[n]{z} - 1$".

p. 96 l. -8. Replace "$|f(z)|^{p-1}$" with "$|f(z)|^{p-2}$".

p. 96 l. -2. Replace "p^2" with "p".

p. 97 l. -2. Replace "[Bur]" with "[Bu]".

p. 101 l. 7. Close the paragraph with "(Compare with §3.2.1.)"

p. 101 l. 15. Replace "$f\,dz$ admits" with "$f\,dz$ locally admits".

p. 122 l. -8. Replace "$\int_{\bar{B}(0,1/n)} f(u)$" with "$\int_{\bar{B}(z,1/n)} f(u)$".

p. 123 l. 4. Replace "$\frac{1}{\pi r^2} \int_0^r F_n(z) \rho\, d\rho$" with "$\frac{2\pi}{\pi r^2} \int_0^r F_n(z) \rho\, d\rho$".

p. 123 l. -7. Replace "$dx\, dy\big] \psi(z)$" with "$d\xi\, d\eta\big] \psi(z)$".

p. 123 ll. -4, -2. Replace "$\int_{B(0,1/n)}$" with "$-\int_{B(0,1/n)}$".

p. 124 l. 8. Replace "Ω_n" with "Ω_{n_0}".

p. 125 l. -1. Close the paragraph with "(See also §3.6 after Proposition 3.6.4, and Proposition 3.6.7.)"

p. 131 l. 16. Replace "of characterizes" with "of §2.3.6 characterizes".

p. 139 l. 11. Replace "$\lim_{z \to \infty}$" with "$\lim_{z \to 0}$".

p. 141 l. -15. Replace "Ω" with "Ω without accumulation points in Ω".

p. 143 l. -2. Replace "1.1.4" with "1.11.4".

p. 150 l. -3. Replace "$0(h^3)$" with "$O(h^3)$".

p. 168 l. -3. Replace "$\rho < R$" with "$\rho < r$".

p. 172 l. 2. Replace "$\sum_{a_k \in D_n}$" with "$\sum_{j=1}^{n} \sum_{a_k \in D_j}$".

p. 174 l. 1. Replace "maximum principle" with "open mapping property". (The maximum principle is proved in the text as a corollary of the open mapping property and, since the statement under consideration follows directly from the open mapping property, it seems more natural to invoke it directly.)

pp. 175, 176. Subsections §§2.6.22, 2.6.23 do not exist. In **p. 174 l. -16** replace "**2.6.24**" with "**2.6.22**", in **p. 174 l. -11** replace "**2.6.25**" with "**2.6.23**", in **p. 175 l. 11** replace "2.6.25 and 2.6.26" with "2.6.23 and 2.6.24", in **p. 174 l. -4** replace "**2.6.26**" with "**2.6.24**", in **p. 176 l. 3**, replace "**2.6.27**" with "**2.6.25**", and in **p. 176 l. 13** replace "2.6.27" with "2.6.25".

p. 176 l. 17. This is the same as Exercise 2.4.4.

p. 177 l. 14. Replace "3.6.17" with "2.6.17".

p. 182 l. 7. Replace "we obtain" with "we can obtain (reparametrizing)".

p. 183 l. 2. Replace "[de B]" with "[De B]".

p. 183 l. 11. Replace "[Du]" with "[Du1]".

p. 183 l. -12. Replace "connected and" with "connected (by §1.10.1) and".

p. 185 l. 11. Replace "$|h(z)| \leq$" with "$|h(z)|^2 \leq$".

p. 185 l. -5. Replace "1.11.15" with "1.11.5".

p. 186 l. 11. Replace "π^2+" with "$4\pi^2+$".

p. 187 l. 16. Replace "$< f, D\rangle$" with "$\langle f, D\rangle$".

p. 187 l. -7. Replace "$(z - w|$" with "$|z - w|$".

p. 188 l. -13. Replace "$\frac{1}{r+|z_n|}\left(1-\frac{|z_n|^2}{r^2}\right)^2 f_n^{\#}(z_n) = \frac{M_n}{r+|z_n|} \geq \frac{M_n}{2r}$." with "$\frac{r^2}{r+|z_n|}\left(1-\frac{|z_n|^2}{r^2}\right)^2 f_n^{\#}(z_n) = \frac{M_n r^2}{r+|z_n|} \geq \frac{M_n r}{2}$."

p. 190 ll. 6, 7. Replace each appearance of f in these 2 lines with g: Replace "$f_{n_k} \to f$ normally in D. Either $f \equiv \infty$ or f is holomorphic. If $f \not\equiv \infty$," with "$f_{n_k} \to g$ normally in D. Either $g \equiv \infty$ or g is holomorphic. If $g \not\equiv \infty$,".

p. 190 l. 9. Replace "If not f_{n_k}" with "If not, f_{n_k}".

p. 190 l. 14. Replace "$z^{-n_k} \leq$" with "$2^{-n_k} \leq$".

p. 190 l. 15. Replace "$|f(z)| \leq 1$" with "$|f(z)| \leq M$".

p. 190 l. -10. Replace "$(f(re^{i\theta}) - f(re^{-i\theta}))$" with "$\dfrac{f(re^{i\theta}) - f(re^{-i\theta})}{2i}$".

p. 194 l. 18. Replace "$\Gamma(t(r))$" with "$\Gamma(t_1(r))$".

p. 194 l. -16. The statement closing the paragraph is false. Replace "if $0 < r' < r$, then $\Omega_{r'} \subseteq \Omega_r$." with "for every r there is $r' < r$ such that $\Omega_{r'} \subseteq \Omega_r$. Notice, however, that $r' < r$ and $\Omega_{r'} \not\subseteq \Omega_r$ is possible."

p. 194 l. -15. Replace "sequence of points" with "sequence of points $(\Gamma'(t_k))$".

p. 194 l. -13. Replace "$\Gamma'(t) \to w_0$ when $t \to 1$, its" with "$\Gamma'(t_k) \to w_0$ when $k \to \infty$, it".

p. 194 l. -9. Replace "$\Gamma'(t(r))$" with "$\Gamma'(t_2(r))$".

p. 194 l. -1. Replace "Hurwitz's theorem one sees easily that $z_0, z_0' \in \partial\Omega$" with "continuity one sees easily that $z_0, z_0' \in \partial\Omega'$".

p. 195 l. 8. Replace "prior reasoning." with "prior reasoning, but defining now $t_1(r)$ as the *largest* value of F_r." It would really be better to replace the discussion preceeding §2.8.5 so t_1 is directly defined this way.

p. 195 l. 10. Replace "$w(r) = z_0 + re^{i\theta(r)}$, $w'(r) = z_0 + re^{i\theta'(r)}$" with "$w(r) = w_0 + re^{i\theta(r)}$, $w'(r) = w_0 + re^{i\theta'(r)}$".

p. 195 l. 19. Replace "$\displaystyle\int_\varepsilon^{r_0}$" with "$\displaystyle 2\pi \int_\varepsilon^{r_0}$".

p. 195 l. 20. Replace "$\leq 2\pi m(f(\Omega_{r_0}))$" with "$= 2\pi m(f(\Omega_{r_0}))$".

p. 195 l. 21. Replace "$\leq 2\pi m(\Omega')$" with "$= 2\pi m(\Omega')$".

p. 196 l. 18. Replace "[Dic]" with "[Die]".

p. 201 l. 15. Replace "$[(\alpha_1 + \cdots + \alpha_n) - \pi]$" with "$[(\alpha_1 + \cdots + \alpha_n) - n]$".

p. 202 l. 3. Replace "$\lim_{z \to \infty}$" with "$\lim_{\substack{z \to \infty \\ z \in \bar{H}}}$".

p. 202 l. 8. Replace "$-f(\rho_0)| = c \left| \displaystyle\int_\theta^{\theta_0}$" with "$-f(-\rho_0)| = c \left| \displaystyle\int_{\theta_0}^{\pi}$".

p. 202 l. 9. Replace this line with

$$\text{“} \leq \pi c \rho_0 (\rho_0 + R_1)^{\sum_{i^+}(\alpha_i - 1)} (\rho_0 - R_1)^{\sum_{i^-}(a_i - 1)},$$

where i^+ stands for those i such that $\alpha_i > 1$ and i^- for those where $\alpha_i \leq 1$."

p. 202 l. 12. Replace "$f(\rho_0)$" with "$f(-\rho_0)$".

p. 203 l. 9. Replace "$\dfrac{\alpha_k}{\alpha_{k+1}}$" with "$\dfrac{\alpha_k}{\alpha_k + 1}$".

p. 203 l. 17. Close the paragraph with "(This also follows by an elementary geometric argument. Refer to Figure 2.14, and recall that locally f is 1-to-1, therefore conformal, so it must preserve orientation.)"

p. 203 l. 21. Replace "$((n-1)$" with "$\pi((n-1)$".

p. 203 l. 23. Replace "$n-1$" with "$n-3$".

p. 204 l. -7. Replace "$f(z) =$" with "$f(z) = \ell$".

p. 207 l. -1. Delete "(a)".

p. 211 l. 3. Replace "2.6.21" with "2.6.20".

p. 211 l. 13. Replace "2.6.20, 2.6.21, and 2.6.35–37" with "2.6.19, 2.6.20, and 2.8.35–37".

p. 211 l. -6. Replace "2.1.11" with "2.1.10".

p. 212 l. 15. Replace "1.5.19" with "2.6.9".

p. 212 l. -15. Replace "Bierbach" with "Bieberbach".

p. 212 l. -8. Replace "2.7.11" with "2.7.12".

p. 212 l. -7. The entry "[Schwick]" does not appear in the list of References at the end of the book. See **p. 636 l. -7** below.

pp. 214–298 heading. Replace (in even pages) "The $\bar\partial$-Equation" with "3. The $\bar\partial$-Equation.".

p. 215 l. -4. Add "(cf. §2.1.22.)"

p. 217 l. -3. Replace "that K is" with "that $\hat K$ is".

p. 218 ll. 4, 5. Replace "$\mathcal{L}_{\mathbb{R}}(\mathbb{C})$" with "$\mathcal{L}_{\mathbb{R}}(\mathbb{C}, \mathbb{R})$" and "$\mathcal{L}_{\mathbb{C}}(\mathbb{C})$" with "$\mathcal{L}_{\mathbb{R}}(\mathbb{C})$".

p. 221 l. 14. Replace "that $\displaystyle\int f$" with "that if $\mu \perp \mathcal{H}(K)$, then $\displaystyle\int f$".

p. 221 l. -12. Replace "$\dfrac{\partial u}{\partial \bar z} dz$" with "$\dfrac{\partial u}{\partial \bar z} d\bar z$".

p. 221 l. -8. Close the paragraph with "Let $f\, d\bar z \in \mathcal{E}^{0,1}(\Omega)$."

p. 222 l. 6. Replace "$\dfrac{\partial u}{\partial \bar z} u_j$" with "$\dfrac{\partial}{\partial \bar z} u_j$".

p. 223 l. -4. Notice the zeroes on the left margin of the diagram did not print correctly. Also, replace

$$\begin{array}{c} \prod_j \mathcal{E}(\Omega_j) \\ \Big\downarrow b \\ \prod_{j,k} \mathcal{H}(\Omega_j \cap \Omega_k) \end{array}$$

with

$$\begin{array}{c} \prod_j \mathcal{E}(\Omega_j) \\ \Big\downarrow b \\ \prod_{j,k} \mathcal{E}(\Omega_j \cap \Omega_k) \end{array}$$

p. 224 l. -7. Replace "discrete sequence in the open set $\Omega \subseteq \mathbb{C}$." with "discrete sequence in the open set $\Omega \subseteq \mathbb{C}$, without accumulation points in Ω." The same change is necessary several times throughout the chapter. Either it must be explicitly mentioned that as a convention *discrete in* Ω is intended to mean *discrete in* Ω, *without accumulation points in* Ω, or the same correction is required in **p. 228 l. -3**, **p. 229 l. -5**, **p. 230 l. 4**, **p. 232 l. 2**, **p. 235 l. -12**, **p. 237 l. -3**, and **p. 238 ll. -15** and **-10**.

p. 225 l. -11 Replace "$\sum_{n\neq 0}$" with "$\lim_{n\to\infty} \sum_{\substack{k=-n \\ k\neq 0}}^{n}$". Or mention that this is the way the series is to be interpreted. Otherwise, the same correction is necessary in **p. 228 ll. 4** and **6**.

p. 226 l. -11. Replace "§2.5.22" with "Exercise 2.5.22".

p. 228 ll. 4, 6. See **p. 225** above.

p. 228 l. -4. Replace "be a discrete" with "be a (finite or) discrete".

p. 228 l. -3 and p. 229 l. -5. See **p. 224** above.

p. 229 l. -4. Replace "w'_k" with "w'_j".

p. 230 l. 4. See **p. 224** above.

p. 231 l. -9. Replace "accumulating at" with "accumulating precisely at".

p. 232 l. 2. See **p. 224** above.

p. 232 l. -16. Replace "[Ma]" with "[Mar]".

p. 234 l. 10. Replace "$\sum_{j=1}^{\infty}$" with "$\prod_{j=1}^{\infty}$".

p. 235 l. -12. See **p. 224** above.

p. 235 l. -10. Replace "$\mathcal{H}(\mathbb{C})$" with "$\mathcal{H}(\Omega)$".

p. 237 l. 7. Replace "=" with ":=".

p. 237 l. -4. Replace "sequence of" with "sequence V of".

p. 237 l. -3 and p. 238 ll. -15, -10. See **p. 224** above.

p. 239 l. 2. Replace this line with "$\sigma(z_k, \Omega^c) \searrow 0$, where σ is the chordal distance on S^2."

p. 242 l. 5. Replace "holomorphically compact" with "holomorphically convex compact".

p. 243 l. -13. Replace "$\left\{ \sin\left(\frac{z}{n}\right), n \in \mathbb{N}^* \right\}$" with "$\left\{ \sin\left(\frac{z}{n}\right) : n \in \mathbb{N}^* \right\}$".

p. 245 l. -6. Replace "$\left\langle z, \frac{\partial \varphi}{\partial \bar{z}} \right\rangle$" with "$\left\langle \frac{1}{z}, \frac{\partial \varphi}{\partial \bar{z}} \right\rangle$".

p. 249 l. -6. Replace "$d(z_k, \Omega^c)$" with "$\sigma(z_k, \Omega^c)$".

p. 249 l. -4. Replace "$\lim_{\varepsilon \to 0}$" with "$\lim_{\varepsilon \to 0^+}$".

p. 251 l. -5. Add the following paragraph before this line:

"To verify exactness, i.e., $\operatorname{Ker} r = \operatorname{Im} \frac{\partial}{\partial \bar{z}}$, note that

a) $\operatorname{Im} \mathrm{i}$ is closed (being $\operatorname{Ker} \frac{\partial}{\partial \bar{z}} : \mathcal{E}(\Omega) \to \mathcal{E}(\Omega)$).

b) $\operatorname{Im} \frac{\partial}{\partial \bar{z}} : \mathcal{E}(\Omega) \to \mathcal{E}(\Omega)$ is closed, since it is in fact onto.

Then, by elementary properties of adjoint operators (Theorems II.17 and II.18 of [Brézis] or IV.2.3 and Corollary of [Sch]), $\operatorname{Im} \frac{\partial}{\partial \bar{z}} : \mathcal{E}'(\Omega) \to \mathcal{E}'(\Omega) = \left(\operatorname{Ker} \frac{\partial}{\partial \bar{z}} : \mathcal{E}(\Omega) \to \mathcal{E}(\Omega) \right)^{\perp} = (\operatorname{Im} \mathrm{i})^{\perp} = \operatorname{Ker} \mathrm{r}$, as we wanted to show.

Notice that by Exercise 3.1.10, since every $T \in \mathcal{E}'(\Omega)$ can be identified with a Radon measure μ, we have $\hat{\mu} \in L^1_{\mathrm{loc}}(\mathbb{C})$, and also $\mu = \frac{\partial}{\partial \bar{z}} \hat{\mu}$, but in general $\operatorname{supp} \hat{\mu}$ is not compact. See also §3.6.6."

The entry "[Brézis]" does not appear in the list of References at the end of the book. If the paragraph above is included, the following entry must be added before line **16** in **p. 634**: "[Brézis] H. Brézis: *Analyse fonctionnelle, theorie et applications*. Masson, 1983."

p. 252 l. 2. Replace "2.2.9, (3)" with "2.2.9, (5)".

p. 252 l. 8. Replace "operator." with "operator. (Since $\frac{\partial R}{\partial \bar{z}} = 0$ implies $R = T_f$ for some f which is harmonic and therefore in $L^1_{\mathrm{loc}}(\Omega)$. Now apply Example 2.2.9, (5).)"

p. 252 l. 10. Replace "distributions." with "distributions. (This is Exercise 1.5.11; see also §4.4.22, (1).)"

p. 255 l. 3. Replace "$\frac{\partial^{p+q}}{\partial z^p \partial \bar{z}^q}$" with "$\frac{\partial^{p+q} g}{\partial z^p \partial \bar{z}^q}$".

p. 255 ll. 10–15. Instead of the closing line **(l. 15)** "(See [Sch] for a proof of these statements.)", a more explicit set of references would be welcome. For example:

- Replace "Hausdorff, and hence Fréchet-Schwartz spaces." with "Hausdorff (see [Sch] §I.2.3), and hence Fréchet-Schwartz spaces (See [Rudin] §1.41, (d))."
- Replace "are Fréchet-Schwartz)" with "are Fréchet-Schwartz, see [Rudin] §4.9)".
- Add after the equation on line **14**: "(As in the proof of Proposition 3.6.4.)" This refers to the addition suggested for **p. 251**, see above.
- And, if these changes are effected, delete line **15**.
- Finally, if these changes take place, it is necessary to add a new entry to the References at the end of the book. In **p. 636** add after line **-15**: "[Rudin] W. Rudin: *Functional Analysis*. McGraw-Hill, 1991."

p. 256 l. 2. Replace "$\frac{\varphi^{(1)}(z_k)}{l!}$" with "$\frac{\varphi^{(l)}(z_k)}{l!}$".

p. 256 l. 9 Replace "$(a_{k,p,q})_{\substack{1 \le p \le m_k - 1 \\ q \ge 0, k \ge 0}}$," with "$(a_{k,p,q})_{\substack{0 \le p \le m_k - 1 \\ q \ge 0, k \ge 1}}$,".

p. 256 l. -5. Replace "$(= R \cup$ " with "$(= \mathbb{R} \cup$ ".

p. 257 ll. -10, -9. Replace "$\varepsilon > 0$" with "$1 > \varepsilon > 0$" and "$z_0 = x_0 + iy_0$ a fixed" with "$z_0 = x_0 + iy_0 \in K + i]0, \varepsilon]$ a fixed".

p. 259 l. 9. Replace "$\frac{\partial^{k+2}}{\partial x^{k+2}}$" with "$\frac{\partial^{k+2} \varphi}{\partial x^{k+2}}$".

p. 263 l. 1. Replace "distribution in" with "distribution T in".

p. 263 l. 3. Replace "$\Omega_+ \cup \Omega_-$" with "$\Omega_- \cup \Omega_+$".

p. 263 l. 9. Replace "function" with "distribution".

p. 263 l. -1. Replace "$b_-(S_-))$" with "$b_-(S_-)))$".

p. 265 l. 5. Replace "functions the" with "functions (as in §2.2.9, (5)) the".

p. 265 l. 10. Replace "$(\tilde{f}_+, \tilde{f}_-)$" with "$(f_+, f_-)$".

p. 265 l. -11. Replace "$\mathcal{H}_b(\Omega)/\mathcal{H}(\Omega)$" with "$\mathcal{H}_b(\Omega)/\mathcal{H}(\tilde{\Omega})$".

p. 266 l. 3. Replace "$d\xi$" with "dx".

p. 268 l. -13 and p. 269 l. 5. Replace "$K = \overset{\circ}{K}$" with "$K = \overset{\bar{\circ}}{K}$".

p. 268 l. -8, -7. Replace "E Lebesgue of measure" with "E of Lebesgue measure".

p. 269 l. 11. Replace "Urisohn" with "Urysohn".

p. 269 l. 22. Replace "§2.2.9." with "§2.2.9 and in §3.6.22."

p. 275 l. 16. Replace "[Ga]" with "[Ga1]".

p. 276 l. 1. Replace "holomorphic functions" with "functions".

p. 276 l. 4. Replace "$C_0^\infty(\mathbb{C})$" with "$\mathcal{D}(\mathbb{C})$".

p. 281 l. 18. Replace "$T * \delta = \delta$" with "$T * \delta = T$".

p. 286 l. 3. Replace "integrable" with "locally integrable".

p. 287 l. 10. Replace "$\left\langle pv\left(\frac{1}{\pi z^m}\right)\varphi, \right.$" with "$\left\langle pv\left(\frac{1}{\pi z^m}\right), \right.$".

p. 287 l. -6. Replace "That is," with "That is, if $\varphi \in \mathcal{D}(\Omega)$ then".

p. 287 l. -1. Replace "that," with "that, with $h(\mu) = \left\langle \frac{1}{\pi}|f|^{2(\mu-1)}\overline{f'}, \varphi \right\rangle$,".

p. 289 l. -12. Replace "$0, -\frac{1}{M}, -\frac{2}{M}, \ldots$" with "$0, -\frac{1}{M!}, -\frac{2}{M!}, \ldots$".

p. 289 l. -6 and p. 290 l. 1. Replace "$C^1(\bar{\Omega} \times \bar{\Omega})$" with "$C^1(\Omega \times \bar{\Omega})$".

p. 292 l. 2. Replace "becomes" with "becomes (by §3.8.12)".

p. 295 l. 5. Replace "$f \not\equiv 0$" with "$f \not\equiv 0$ in any connected component of Ω".

p. 297 l. 16. Replace "[Ga]" with "[Ga1]".

p. 297 l. 19. Replace "[Mer]" with "[Me]".

p. 297 l. -5. Replace "[G-S]" with "[GS]".

p. 298 l. 2. The entry "[Mart]" has been omitted from the list of References at the end of the book. It must appear on **p. 636 l. 16**, see below.

p. 298 l. 5. Replace "[KKK]" with "[K]". See **p. 635 l. -5** below.

p. 298 l. -2. Replace "$\mu = L^\infty$" with "$\mu \in L^\infty$".

p. 302 ll. 3, 4. Replace line **3** with "$|d(z',\zeta) - d(z,\zeta)| \leq d(z,z')$" (to include the case $f(\zeta) = \infty$) and close line **4** with "for all $\zeta \in X$ such that".

p. 302 l. 17. Replace "coverging" with "converging".

p. 303 l. -1. Replace "Radon measures" with "measures".

p. 304 l. 4. Replace "$x \mapsto f(x,y)$" with "$y \mapsto f(x,y)$".

p. 306 l. -11. Replace "$d\zeta\, d\eta$" with "$d\xi\, d\eta$".

p. 306 l. -3 and p. 307 l. 3. Replace "$\chi_{\bar{B}(0,1)}$" with "$\chi_{B(0,1)}$".

p. 307 l. 2. Replace "$< 4/\pi$" with "$\leq 4/\pi$".

p. 307 l. 4. Replace "$\chi_{\bar{B}(0,r)}$" with "$\chi_{B(0,r)}$".

p. 307 l. 5. Replace "$(f * \varphi_{n,r})(z)$," with "$(f * \varphi_{n,r})(z)$ for r sufficiently small,".

p. 307 l. -11. Replace "$\dfrac{1}{2\pi} \displaystyle\int_{\bar{B}(z,r)} \Delta f\, d\xi\, d\eta = \frac{r^2}{2} A(\Delta f, z, r) = \frac{r^2}{2} \Delta f(z)$." with "$\dfrac{1}{2\pi r} \displaystyle\int_{\bar{B}(z,r)} \Delta f\, d\xi\, d\eta = \frac{r}{2} A(\Delta f, z, r) = \frac{r}{2} \Delta f(z)$."

p. 308 l. 8. Add "(cf. §2.1.26.)"

p. 308 l. 15. Add "(see Exercise 2.1.2.)"

p. 309 l. 10. Replace "$u(re^{i\theta})$" with "$u(re^{i\alpha})$".

p. 310 l. 9. Replace "questions" with "question".

p. 310 l. -2. Replace "$\dfrac{1}{2\pi r^n}$" with "$\dfrac{1}{2\pi r^{|n|}}$".

p. 311 ll. 14, 16. Replace "$\displaystyle\int^{2\pi}$" with "$\displaystyle\int_0^{2\pi}$".

p. 311 ll. -5, -4. Replace "$\max\limits_{|\theta-\theta_1|<\delta}$" with "$\sup\limits_{|\theta-\theta_1|<\delta}$".

p. 311 l. -4. Replace "$< \varepsilon$" with "$\leq \varepsilon$".

p. 311 ll. -3–-1. The reasoning in this paragraph is correct, but it looks out of place after the argument given in **p. 309**. Either replace the paragraph with the following, or add this as a parenthetical comment at the end: "Property (4) is trivial from the equality established right before the definition of the Poisson kernel and the consequent reasoning."

p. 312 l. -6. Replace "$\frac{r^2 - |z - z_0|}{|z_0 + re^{i\theta} - z|^2}$" with "$\frac{r^2 - |z - z_0|^2}{|z_0 + re^{i\theta} - z|^2}$".

p. 313 l. 7. Add a new paragraph: "(Corollary 4.3.10 also follows from Example 4.3.4, (2) since such a real valued u is the real part of an entire function f, but then e^f is entire and bounded, hence constant. It follows that f, and therefore u, is constant as well.)"

p. 313 l. -17. Replace "coverges" with "converges".

p. 314 l. 16. Replace "that $|z| < 1$" with "that for $|z| < 1$".

p. 314 l. -2. Replace "$\frac{1}{4}$" with "$\frac{1}{r}$".

p. 315 l. 3. Replace "$\lambda(h, r, 0)$" with "$\lambda(h, 0, r)$".

p. 316 l. -6. Replace "homotopic" with "homotopic with fixed endpoints".

p. 316 l. -5. Replace "homotopic, with a fixed-point homotopy," with "homotopic with fixed endpoints".

p. 316 l. -3. Replace "nonnegative" with "nonnegative (real valued)".

p. 317 l. 3. Replace "$\frac{\partial |\alpha_1|}{\partial x^{\alpha_1} \partial y^{\alpha_2}}$" with "$\frac{\partial^{|\alpha|}}{\partial x^{\alpha_1} \partial y^{\alpha_2}}$".

p. 317 l. -11. Replace "$u, v \in C^2(\bar{\Omega})$." with "and let $u, v \in C^2(\bar{\Omega})$ be real valued."

p. 317 l. -7. Replace "$D(u, v) = \int_{\partial\Omega} u \frac{\partial v}{\partial u} \, |dz| - \int_\Omega u \Delta v \, dx \, dy$." with "$D(u, v) = \int_{\partial\Omega} u \frac{\partial v}{\partial n} \, |dz| - \int_\Omega u \Delta v \, dx \, dy$. (This is Exercise 1.5.10.)"

p. 317 l. -4. Replace "a function" with "a real valued function".

p. 318 l. -12. Close this line with "—Compare with §4.2.2, (1);".

p. 318 l. -8. Replace "§4.1." with "§4.2."

p. 318 l. -2. Replace "u function" with "u a function".

p. 319 l. 6. Replace "If $B \neq \emptyset$" with "If $B = \emptyset$".

p. 319 l. -8. Close this line with "(E is relatively closed by continuity of $A(u, z, r)$ in z and r, cf. §4.3.2.)"

p. 320 l. -11. Replace "$\frac{2}{r^2}$" with "$\frac{4}{r^2}$".

p. 320 l. -3. Replace "$\frac{r^2}{2}[\Delta f(z) + o(r)]$." with "$\frac{r^2}{4}[\Delta f(z) + o(1)]$."

p. 321 l. 2. Replace "$\int_{\partial B(z,r)} \Delta u$" with "$\int_{B(z,r)} \Delta u$".

p. 321 l. 6. Replace "v is harmonic" with "v is real valued and harmonic".

p. 321 l. 11. Replace "$x_1, \ldots, x_n$" with "$\alpha_1, \ldots, \alpha_n$".

p. 321 l. 12. Replace "$\sum_{1 \le i \le n} x_i u_i$" with "$\sum_{1 \le i \le n} \alpha_i u_i$".

p. 321 l. -11. Replace "$B(z,r)$" with "$\bar{B}(z,r)$".

p. 321 l. -3. Replace "subharmonic." with "subharmonic in the wide sense."

p. 322 l. 2. Replace "4ε" with "2ε".

p. 322 l. -7. Replace "Ω" with "Ω_δ".

p. 323 l. 1. Replace "$f = u_0 + \sum_{k=0}^{n}$" with "$f(\zeta) = a_0 + 2\sum_{k=1}^{n}$".

p. 323 l. 4. Replace "function in $[0, 2\pi]$" with "function in $\mathbb{R}$, periodic with period 2π".

p. 323 l. 9. Replace "hand" with "hand (by §4.2.3)".

p. 323 l. 10. Replace "continuous," with "continuous, periodic with period 2π,".

p. 323 l. 16. Replace "F such" with "F be such".

p. 325 l. 11. Replace "$\alpha \in \mathbb{R}$ such" with "$\alpha \in \mathbb{R}$ be such".

p. 325 l. -2. Replace "$\alpha_\rho(r)\, dr\, d\theta$" with "$\alpha_\rho(r) r\, dr\, d\theta$".

p. 325 l. -1. Replace "$2\pi \int_0^\rho \lambda(u,z,\rho)\alpha_\rho(r)\, dr = 2\pi \int_0^1 \lambda(u,z,\rho s)\alpha(s)\, ds$." with "$2\pi \int_0^\rho \lambda(u,z,r)\alpha_\rho(r) r\, dr = 2\pi \int_0^1 \lambda(u,z,\rho s)\alpha(s) s\, ds$."

p. 326 l. 3. Replace "ds" with "$s\, ds$".

p. 327 l. 11. Close this line with "(By Jensen's inequality, cf. [Ru], §3.3.)"

p. 328 l. 3. Replace "$\int_\Omega \varphi\, dx\, dy$" with "$\int_\Omega u\varphi\, dx\, dy$".

p. 328 l. 10. Close this line with "See also Proposition 3.6.5."

p. 328 l. -11. Replace "of and" with "of f and".

p. 330 ll. 2, 6. Replace "$\log|z-\alpha_i|$" with "$\log|z-a_i|$".

p. 330 ll. -9, -4, -3. Replace "$\frac{2}{r^2}$" with "$\frac{4}{r^2}$".

p. 330 l. -8. Replace "§4.4.11" with "§4.4.10".

p. 330 l. -7. Replace "holds:" with "holds for all $r>0$ sufficiently small:".

p. 331 l. 2. Replace "L. Schwartz" with "S".

p. 331 l. 3. Close this line with "if $r>0$ is sufficiently small,".

p. 331 l. -11. Replace "$\frac{1}{2\pi}$" with "$\frac{\mu(\mathbb{C})}{2\pi}$".

p. 332 l. 10. Replace "$\log|z|^2+\varepsilon$" with "$\log(|z|^2+\varepsilon)$".

p. 333 l. 9. Replace "U_p" with "u_p".

p. 333 l. 9. Replace "u in" with "u_0 in".

p. 333 l. 17. Replace "$u_0 * u_p$" with "$u_0 * \alpha_p$".

p. 333 l. -8. Replace "Δu." with "$\Delta u\big|\Omega_1$."

p. 333 l. -3. Replace "**4.2.26.**" with "**4.4.26.**"

p. 334 l. 12. Replace "$\int_0^2 \pi$" with "$\int_0^{2\pi}$".

p. 335 l. 4. Replace "convex of" with "convex function of".

p. 335 ll. 6, 12. Replace "$\int_{B(z_0,r)}$" with "$\int_{B(z_0,t)}$".

p. 336 l. 8. Replace "$=\lim_{\rho\to 0}[\lambda($" with "$=\lim_{\rho\to 0}2\pi[\lambda($".

p. 336 l. 9. Replace this line with "$=2\pi\big(\lambda(u,z_0,R)-\lambda(u,z_0,r)\big)$,".

p. 336 l. 12. Replace both occurrences of "$\frac{1}{t}$" with "$\frac{1}{2\pi t}$". Replace "$\int_{\bar B(z_0,r)}$" with "$\int_{\bar B(z_0,t)}$".

p. 336 l. -11. Replace "$\lim_{t\to R^+}$" with "$\lim_{t\to R^-}$".

p. 336 l. -1. Replace "$\prod_{1\le j\le n}$" with "$\prod_{1\le j\le N}$".

p. 337 l. 5. Close this line with "in a neighborhood of $\bar B(0,r)$".

p. 337 l. 13. Replace "$\log \alpha_{m-1}$" with "$\log \alpha_m$".

p. 337 l. -12. Replace "on $.r'$." with "from the right on r'."

p. 337 l. -10. Add before this line: "Notice Exercise 2.3.10 follows as a corollary."

p. 337 l. -3. Add before this line: "(See Exercise 2.5.19 for another proof.)"

p. 337 l. -1. Replace "$\Delta u(\bar{B}(z_0, r))$" with "$\dfrac{\Delta u(\bar{B}(z_0, r))}{2\pi}$".

p. 338 l. 1. Replace "$\Delta u(B(z_0, r))\dfrac{dt}{t}$" with "$\Delta u(B(z_0, t))\dfrac{dt}{2\pi t}$".

p. 338 l. 2. Replace "$\Delta(B$" with "$\Delta u(B$".

p. 338 l. 4. Replace "$(B(z_0$" with "$(\bar{B}(z_0$".

p. 338 l. -10. Replace "$M(\zeta)$" with "$\mathcal{M}(z)$".

p. 338 l. -7. Replace "2.2.20" with "2.1.20".

p. 338 l. -5. Replace "is subharmonic" with "is a subharmonic".

p. 338 l. -2. Delete " when $z \notin E$".

p. 339 l. 8. Replace "§4.4.15 and §4.4.32" with "§4.4.15, §4.4.26 and §4.4.32".

p. 339 l. 12. Replace "$\doteq$" with "$=$". Close this line with "(cf. §4.4.13, (2))".

p. 339 l. -7. Replace "$\dfrac{\lambda(u, z, r)}{\log R}$" with "$\dfrac{\lambda(u, z, R)}{\log R}$".

p. 339 l. -4. Replace "of z, then" with "V of z, and $f \not\equiv 0$ in the connected component of V containing z, then".

p. 340 l. -3. Add before this line: "Notice Exercise 2.3.9 follows as a corollary."

p. 340 l. -1. Replace "$f(x)$" with "$f(y)$".

p. 341 l. 12. Replace "HS" with "Ru".

p. 341 l. -13. Replace "Ω." with "Ω, and there exists $h \in L^1_{\text{loc}}(\Omega)$ such that $h \leq u_n$ a.e. for all n." To see that this extra hypothesis is necessary, consider $u_n \equiv -n$.

p. 342 l. 3. Close this line with "(The particular case $u = u^*$ also follows from the observations before §4.4.38.)"

p. 342 l. -13. Replace "sets and" with "sets, there is an $h \in L^1_{\text{loc}}(\Omega)$ such that $h \leq u_t$ a.e. for all t, and". See **p. 341 l. -13** above.

p. 342 l. -7. Replace "r_1 such that" with "r_1 are such that".

p. 342 l. -4. Replace "subset" with "open subset".

p. 343 l. -12. Replace the second appearance of "$(\bar{z}_0 - \bar{z}_1)$" with "$(z_0 - z_1)$".

p. 343 ll. -11, -10. Delete "$\frac{1}{2}$".

p. 344 l. 6. Replace "$b > 0$" with "$b \geq 0$".

p. 344 l. 12. Replace "be the Lebesgue" with "be one half of the Lebesgue".

p. 344 l. -13. Replace "of disks" with "of distinct disks".

p. 344 l. -7. Replace "$\lambda(u, x_n, \rho)$" with "$\lambda(u, x_{n-1}, \rho)$".

p. 344 ll. -2, -1 and p. 345 l. 4. Replace "$A|z - z_0|$" with "$C|z - z_0|$".

p. 345 l. 8. Replace "a" with "a_1".

p. 345 l. 12 and p. 346 l. 10. Replace "bounded open subset of $\mathbb{C}$" with "open subset of $\mathbb{C}$, $\Omega \neq \mathbb{C}$".

p. 345 l. -9. Replace "set." with "set, $\Omega \neq \mathbb{C}$."

p. 345 l. -4. Replace "$\frac{d(z, \Omega^c}{2}\Big)$" with "$\frac{d(z, \Omega^c)}{2}\Big)$".

p. 346 l. 13. Add before this line: "Note that against the usual convention in Chapter 3, here we are assuming that f and g do not have zeros in common. In fact, we are assuming that g has no zeros in Ω".

p. 346 l. 16. Replace "Momm" with "Mo".

p. 346 l. 17. Replace "Val1" with "Va1".

p. 350 l. -1 and 351 l. 3. Replace "isoparametric" with "isoperimetric".

p. 352 l. -14. Replace "$x \geq \exp_k 1$" with "$x \geq \exp_{k-1} 1$".

p. 353 l. 4. Replace "function" with "function, $f \not\equiv 0$,".

p. 353 l. 10. Replace "z_n" with "a_n".

p. 355 l. -10. Replace "$\log((\nu + \varepsilon)/n)$" with "$\log(\nu + \varepsilon)/\log n$".

p. 355 l. -5. Replace "ρ/n" with "n/ρ".

p. 356 l. -10. Replace "e^{ρ}" with "$e\rho$".

p. 356 l. -9. Replace "τz" with "$\tau^{1/\rho} z$". Close this line with "(Cf. Exercise 3.3.12, (a) and the proof of Lemma 5.3.1.)"

p. 358 l. 7. Replace "$\frac{1}{\lambda}$" with "$\frac{1}{\lambda_0}$".

p. 359 l. 10. Replace "$2r$" with "$-2r$".

p. 359 l. -3. Replace "2.7.10" with "2.7.11".

p. 362 l. -5. Replace "$\frac{2\varepsilon R}{n}$" with "$\frac{2\varepsilon R}{e}$".

p. 362 l. -2. Replace "$\frac{(2R)^n}{|z_1 \dots z_n|}\left(\frac{2\varepsilon R}{n}\right)^n$" with "$\frac{(2R)^{2n}}{|z_1 \dots z_n|}\left(\frac{2\varepsilon R}{e}\right)^n$".

p. 365 l. 7. The entry "[Buck]" has been omitted from the list of References at the end of the book. It must appear on **p. 634 l. 16**, see below. The name must refer to R. Creighton Buck. I have been unable to locate the paper that contains the result under consideration.

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p. 409 l. 7. Replace "4.4.2 (3)" with "4.4.24, (3)".

p. 410 l. 1. Replace "2.6.3" with "2.6.21".

p. 411 l. -14. Replace "4.7.24" with "4.7.25".

p. 413 l. -1. Replace "and" with "to".

p. 416 l. 4. Replace "1.3.2 (3)" with "1.4.2, (3)".

p. 419 l. -10. Replace "w" with "ω".

p. 421 l. 8. Replace "Ga" with "Ga1".

p. 428 l. -2. Replace "4.10.15" with "4.8.25".

p. 429 l. 1. Replace "$\frac{d^{s-1}}{dz^{s-1}}$" with "$\frac{\partial^{s-1}}{\partial z^{s-1}}$".

p. 435 l. -4. Replace "4.9.2 (2)" with "4.9.2, (2)".

p. 473 l. -6. Replace "1 on $|z| = 1$" with "0 on $|z| = 1$".

p. 479 l. -9. Replace "Lan" with "La".

p. 480 l. -9. Replace "piecewise C^1" with "piecewise-C^1".

p. 484 l. 1. Replace "$\bar{B}(0,1)$." with "$\bar{B}(0,1)$, by the argument preceding §4.8.1."

p. 486 l. 1. Replace "$\alpha \in \mathbb{R}$" with "$\sigma \in \mathbb{R}$".

p. 486 l. -2. Replace "$\sum_{n \geq 1}$" with "$\sum_{k \geq 1}$".

p. 487 ll. 4, 7. Replace "$\left(e^{-\lambda_{k+1}\sigma} - e^{-\lambda_k \sigma}\right)$" with "$\left(e^{-\lambda_k \sigma} - e^{-\lambda_{k+1}\sigma}\right)$".

p. 487 l. 7. Replace "$\sum_{k \geq 0}$" with "$\sum_{k \geq 1}$".

p. 487 l. 9. Replace "$\sum_{0\le n\le N}$" with "$\sum_{1\le n\le N}$".

p. 487 l. 10. Replace "$\max_{m\ge p}$" with "$\sup_{m\ge p}$".

p. 487 l. 11. Delete "The sequence M_p is decreasing and".

p. 487 ll. -13, -12. Replace "M_p" with "$\max_{m\ge p} M_m$". It would be easier to define M_p in **l. 10** as "$\max_{m\ge p}\sup_{q\ge m}|b_{m,q}|$", in which case the changes required in **ll. 11**, **-13**, and **-12** can be avoided.

p. 488 l. 10. Replace "$\lim_{s\to\infty,\ |\arg(s-\sigma_c)|\le\pi/2-\delta}$" with "$\lim_{s\to\infty,\ |\operatorname{Arg}(s-\sigma_c)|\le\pi/2-\delta}$".

p. 489 l. 6. Replace "$b_{0,j}$" with "$b_{1,j}$", "$b_{0,p-1}$" with "$b_{1,p-1}$", and "$b_{0,q}$" with "$b_{1,q}$".

p. 499 l. 3 and p. 500 l. 3. Replace "3.3.11" with "3.3.12".

p. 499 l. -11. Replace "Example 4.5.7 (2), where we *defined*" with "Exercise 3.3.12, which can be seen as *defining*".

p. 502 l. 2. Replace "5.5.35" with "5.3.5".

p. 502 l. -13. Replace "$a\in\mathbb{C}^*$" with "$a\in\mathbb{C}\setminus\{0,-1,-2,\dots\}$".

p. 508 l. -9. Replace "$\subseteq V$" with "$\subseteq U$". Replace "$(p|V)^{-1}$" with "$(p|U)^{-1}$".

p. 509 l. 7. Replace "1.6.28" with "1.6.22".

p. 509 l. 8. Replace "$K(s,t)$" with "$K(t,s)$".

p. 510 l. 14. Replace "maps h" with "map h".

p. 510 l. -15. §5.4.6, (5) is not a definition. Change this entry into a remark.

p. 530 l. 1. Replace "$(z^2-25)^{1/2}$" with "$(z^2-25))^{1/2}$".

p. 531 l. -9. Replace "$e^{\zeta^2}\,ds$" with "$e^{\zeta^2}\,d\zeta$".

p. 534 l. 1. The entry "[Pi]" has been omitted from the list of References at the end of the book. It must appear on **p. 636 l. -26**, see below. I have been unable to identify this reference.

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p. 557 ll. 9, 16. In **l. 9** replace "correct." with "correct.)" In **l. 16** replace "one.)" with "one."

p. 564 l. 5. Replace "X $\to$ S^2" with "$X\to S^2$".

p. 572 ll. 10, 11. I do not understand the last sentence, "Compare with Exercise 2.8.19 for the case $\sqrt{(z-a_1)\dots(z-a_n)}$." It might be that "2.8.19" is a typo and must be replaced with one of the Exercises in §5.12, possibly with "5.12.7". Still, I am not sure what kind of comparison is intended.

p. 585 l. -14. Replace "g$'(z)$" with "$g'(z)$".

p. 632 l. 22. The entry "[Lang]" has been omitted from the list of References at the end of the book. It must appear on **p. 636 l. 2**, see below.

p. 633 l. -11. Replace "(in press)." with "32 (1990), 899–915."

p. 634 l. 1. Replace "measures and arc length" with "measure and arclength".

p. 634 l. 2. Replace "(in press)." with "132 (1990), 511–547."

p. 634 l. 16. See **pp. 251** and **365** above. New entries must be added. The entry mentioned in page **365** must begin "[Buck] R. C. Buck."

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p. 635 l. 2. Replace "Springer-Verlag." with "Springer-Verlag, 1964."

p. 635 l. -21. Replace "*Analytic Function Theory.*" with "*Real and Abstract Analysis.*"

p. 635 l. -5. Add a new entry: "[K] A. Kaneko: *Introduction to Hyperfunctions.* Kluwer Academic Publishers, 1988." See **p. 298 l. 5** above.

p. 636 l. 2. Add a new entry: "[Lang] S. Lang: *Elliptic Functions.* Springer-Verlag, 1987." See **p. 632** above.

p. 636 l. 16. Add a new entry: "[Mart] A. Martineau: *Oeuvres de André Martineau.* Éditions du Centre National de la Recherche Scientifique, 1977." See **p. 298 l. 2** above.

p. 636 l. 22. Replace "(in press)." with "22 (1990), 239–244."

p. 636 l. -26. See **p. 534** above. Add a new entry. It must begin "[Pi]".

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p. 636 l. -14. See **p. 255 ll. 10-15** above.

p. 636 l. -11. Replace "Schaeffer" with "Schaefer".

p. 636 l. -7. Add a new entry: "[Schwick] W. Schwick: Normality criteria for families of meromorphic functions. J. Analyse Math. 52 (1989), 241–289." See **p. 212 l. -7** above.

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