

# Corrections to GTM 287: Beals & Wong

## *Explorations in Complex Functions*

March 10, 2021

### 1 Corrections to the text

p.1, line 8,  $\partial[\bar{f}] \rightarrow \partial\bar{f}$

p.29, last three line of Exercise 2: replace the hint with:

(Hint: parametrize  $S$  minus the north pole by  $P(x, y) = (e^{iy} \cos x, \sin x)$  and write  $\pi(P(x, y)) = X(x, y) + iY(x, y)$ . Show that for each  $(x, y)$ , the derivative of the map  $(x, y) \rightarrow (X, Y)$  is a rotation multiplied by a scalar.)

p.31, Exercise 26, line 1: Suppose that  $L$  is the line  $\{z : \operatorname{Re} z = 1\}$ .

p.39, Exercise 7: the Euclidean center lies farther from the boundary (of  $\mathbb{D}$ ).

p.57, equation (5.5.2)  $\alpha_1 + \alpha_2 + \cdots + \alpha_n = n - 2$ .

p.65, last line: Duren [40]

p.86, line 13: other sheets  $\rightarrow$  other sheet

p.94, line 2:  $k$  and  $z \rightarrow k$  and  $z$

p.97, lines 7,8: interchange  $z$  and  $w$ :  $w^2 = z$ ,  $(z, w) = \left(\frac{t^2}{4}, \frac{t}{2}\right)$

p.116, line 7: the (8.6.2)  $\rightarrow$  the equation (8.6.2)

p.119, Exercise 13 (b): (Hint:  $\varphi'_1(0) \neq 0$ .)

p.180, last line:  $\sum_{n=1}^{\infty} \chi(p)p^{-s} \rightarrow \sum_{n=1}^{\infty} \chi(n)n^{-s}$ .

p.182, Exercise 7, line 2:  $\sum_{n=0}^{\infty} \frac{1}{(n+x)^s}$

p.182, Exercise 8 (a):  $L(s, \chi) = \frac{1}{k^s} \sum_{m=1}^{k-1} \chi(m) \zeta\left(\frac{m}{k}, s\right)$ .

p.216, Exercise 14:  $(f')^2 - f^4$  is even ...  $(f')^2 = f^4 + af^2 + b$ .

p.254, line 1: largesty  $\rightarrow$  largest

## 2 Typesetting corrections

p.27, line 10, separate:     the *Cayley*

p.77, line 1 of **6.6**, close up:     polygon   is

p.91, line -13, close up:     *irreducible*   if

p.93, line -8, close up:     leading   coefficient

p.155, line 1, close up:     defined   for

p.273, line above **19.3**, remove dots

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