

This is the ninth set of corrections for the sixth edition of *Probability and Statistical Inference*.

- Page 89, line 5, a  $P$  is missing. That line should read:

$$P(A_1 \cup A_2 \cup \dots | B) = \frac{P(A_1 \cap B) + P(A_2 \cap B) + \dots}{P(B)}$$

- Page 89, line 7 from the bottom,  $P(A|B)$  **should be**  $P(B|A)$  so that line is now:

$$P(B|A) = \frac{P(A \cap B)}{P(A)} = \frac{9}{24}.$$

- Page 120, line 6 from the bottom, the second  $P(X = -1)$  **should be**  $P(X = 1)$  so it reads:

$$P(Y = 1) = P(X = -1) + P(X = 1) = \frac{1}{3} + \frac{1}{3} = \frac{2}{3}.$$

- Page 160, under Figure 3.5-3, part (a),  $\lambda = 12$  **should be**  $\lambda = 2.5$  so it reads:

**Figure 3.4-3** Binomial (shaded) and Poisson probability histograms: (a)  $b(25, 0.10)$ ; Poisson,  $\lambda = 2.5$ ; (b)  $b(40, 0.05)$ ; Poisson,  $\lambda = 2$ , (c)  $b(40, 0.30)$ ; Poisson,  $\lambda = 12$ , (d)  $b(45, 0.10)$ ; Poisson,  $\lambda = 4.5$ .

- Page 187, line 3 from the bottom,  $t < \theta$  **should be**  $t < 1/\theta$  so it reads:

$$M(t) = \frac{1}{(1 - \theta t)^\alpha}, \quad t < 1/\theta.$$

- Page 190, the caption under Figure 4.3-2 **should be**

**Figure 4.3-2** Chi-square p.d.f.s with  $r = 2, 3, 5, 8$ .

- Page 209, line 3 in the proof,  $\{F^{-1}(y) \leq x\}$  is equivalent to **should be**  $\{F^{-1}(Y) \leq x\}$  is equivalent to

- Page 225, line 11,  $P(X = x, Y = y) = P(X = x)P(Y = y)$  **should be**

$$P(X = x, Y = y) \equiv P(X = x)P(Y = y)$$

- Page 228, line 16,

$$\sum_{(x_1, x_2) \in S} u(x_1, x_2) f(x_1, x_2) = \sum_{y \in S_1} g(y).$$

**should be**

$$\sum_{(x_1, x_2) \in S} u(x_1, x_2) f(x_1, x_2) = \sum_{y \in S_1} y g(y).$$

- Page 228, line 4 from the bottom, we are missing a  $+$  sign. Lines 4 and 5 from the bottom should be

$$\begin{aligned} E(X_1 + X_2) &= \sum_{x_2=0}^1 \sum_{x_1=0}^1 (x_1 + x_2) \frac{3 - x_1 - x_2}{8} \\ &= (0) \binom{3}{8} + (1) \binom{2}{8} + (1) \binom{2}{8} + (2) \binom{1}{8} = \frac{3}{4}. \end{aligned}$$

- Page 236, four lines above Example 5.2-1,

$$E(X_1, X_2) = \mu_1\mu_2 + \rho\sigma_1\sigma_2.$$

**should be**

$$E(X_1X_2) = \mu_1\mu_2 + \rho\sigma_1\sigma_2.$$

- Page 237, line 6 from the bottom,

$$\rho = \frac{\sum (x - \mu_x)(y - \mu_y)f(x, y)}{\sigma_x\sigma_y},$$

**should be**

$$\rho = \frac{\sum_x \sum_y (x - \mu_x)(y - \mu_y)f(x, y)}{\sigma_x\sigma_y},$$

- Page 302, line 6 from bottom, Equation P6.3-1. **should be** Equation 6.3-1.
- Page 315, line 16 from the bottom, replace

$$k - 1/2 < y < k + 1/2,$$

with

$$k - 1/2 < y = k < k + 1/2,$$

- Page 315, line 15 from the bottom,

$$f(y) = \frac{n!}{k!(n-k)!} p^k (1-p)^{n-k}, \quad k = 0, 1, 2, \dots, n.$$

**should be**

$$f(k) = \frac{n!}{k!(n-k)!} p^k (1-p)^{n-k}, \quad k = 0, 1, 2, \dots, n.$$

- Page 331, line 7 from the bottom, Equation 6.8-0 **should be** Equation 6.8-1
- Page 340, replace last sentence

We hope you use what statistics of which you are knowledgeable to benefit you the rest of your life.

with

We hope you use what statistics you know to benefit you the rest of your life.

- Page 636, line 11 from the bottom,

$$\int_a^{u(x)} f(t) dt = F[u(x)] - F(b).$$

**should be**

$$\int_a^{u(x)} f(t) dt = F[u(x)] - F(a).$$

- Page 656, line 3 from the bottom, in the row that begins with  $\alpha$ , .0300 **should be** 0.300