

Errata
Introduction to Probability, 1st Edition
Dimitri P. Bertsekas and John N. Tsitsiklis
Athena Scientific, 2002
(last updated 9/10/05)

These are corrections to the first and second printings of the book, and have been fixed in the third printing. Books from the 2nd or 3rd printing can be identified by the entry “Second printing” or “Third printing” below the ISBN number in the copyright page in the front.

- p. 6, l. 1: x_n should read x
- p. 16, l. –3: “greater that” should read “greater than”
- p. 24, l. –6: “ $\mathbf{P}(A_1 \cap A_2 \cap \dots \cap A_3)$ ” should read “ $\mathbf{P}(A_1 \cap A_2 \cap \dots \cap A_n)$ ”
- p. 49, near end of Example 1.31: “ $T_1, T_1,$ and T_3 ” should read “ $T_1, T_2,$ and T_3 ”
- p. 97, 3rd line of Example 2.11: “. . . one person, and each assignment of hats to persons is equally likely.”
- p. 111, beginning of 2nd paragraph: “ $\mathbf{P}(A > 0)$ ” should read “ $\mathbf{P}(A) > 0$ ”
- p. 112, l. –9: “ $\tilde{X} = X - \mathbf{E}[Y]$ ” should read “ $\tilde{X} = X - \mathbf{E}[X]$ ”
- p. 113, l. 2: “ $\tilde{X} = X - \mathbf{E}[Y]$ ” should read “ $\tilde{X} = X - \mathbf{E}[X]$ ”
- p. 117, last line: “ $p_Y(y)$ ” should read “ $p_Z(z)$ ”
- p. 189, Fig. 3.25: in the right-hand-side part of the figure, the shaded part corresponding to negative x (the small triangle to the left of the origin) should not be shaded
- p. 194, l. 4: “ $(1 - p\lambda)e^{-\lambda x}$ ” should read “ $(1 - p)\lambda e^{-\lambda x}$ ”
- p. 197, second line of part (b): “parameter p ” should read “parameter λ ”
- p. 199, l. 1: “ $p_Y(1)$ ” should read “ $p_Y(5)$ ”
- p. 205, bottom: last six occurrences of “ Z ” should be “ z ”:

$$\begin{aligned} F_Z(z) &= \mathbf{P}(\min\{X, Y\} \leq z) \\ &= 1 - \mathbf{P}(\min\{X, Y\} > z) \\ &= 1 - \mathbf{P}(X > z, Y > z) \\ &= 1 - \mathbf{P}(X > z)\mathbf{P}(Y > z) \end{aligned}$$

- p. 220, l. 6: For the geometric random variable, “ $k = 0, 1, \dots$ ” should read “ $k = 1, 2, \dots$ ”
- p. 220, l. –5: For the exponential random variable, “ $(s > \lambda)$ ” should read “ $(s < \lambda)$ ”
- p. 221, Example 4.13: in the definition of $p_Y(y)$, “if $x =$ ” should be replaced by “if $y =$ ”, three times
- p. 234, 5th line of shaded box: “We assume that all of these random variables are independent”, should read, “We assume that all of these random variables are independent and identically distributed”
- p. 249, l. 14: “Since X and Y are independent” should read “Since \bar{X} and \bar{Y} are independent”
- p. 264: “Schwartz” should read “Schwarz” (3 times)
- p. 276, 2nd line of Example 5.3: “arises” should read “arrives”
- p. 318, Figure 6.4: the “ r ” next to the arc from node (2,4) to node 1 should be deleted
- p. 318: “ $\mathbf{P}(X_0 = i_0, X_1 = i_1, \dots, X_{i_n} = i_n)$ ” should read “ $\mathbf{P}(X_0 = i_0, X_1 = i_1, \dots, X_n = i_n)$ ” (3 times)
- p. 340, two-thirds down: “Since $a_i = 0$ ” should read “Since $a_0 = 0$ ”

- p. 350, l. 6: $\lim_{n \rightarrow \infty}$ should read $\lim_{t \rightarrow \infty}$
- p. 403, l. -8: “Example 7.14” should read “Example 7.7”
- p. 408, second and third equations from the bottom should read:

$$\mathbf{E} [(X_1 + \cdots + X_n)^4] = n\mathbf{E}[X_1^4] + 3n(n-1)\mathbf{E}[X_1^2 X_2^2].$$

$$\mathbf{E} [(X_1 + \cdots + X_n)^4] \leq (n + 3n(n-1))\mathbf{E}[X_1^4] \leq 3n^2\mathbf{E}[X_1^4].$$

- p. 413: “Inequality, Schwartz” should read “Inequality, Schwarz”
- p. 415: “Schwartz” should read ”Schwarz”