

# Statistical Computing with R, 2nd ed.

## Errata and Updates

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### Corrections

- Equation (4.1) is missing the negative sign in the exponent.

$$P(N(s+t) - N(s) = n) = \frac{e^{-\lambda t} (\lambda t)^n}{n!}$$

- Example 5.1 in function `panel.d: on.exit(par(usr=usr))`.
- Example 5.11 (parallel coordinates): lattice package function `parallel()` has been replaced by `parallelplot()`.
- Example 6.7, last displayed equation, rightmost paren. expression should be squared. (The numerical answers following are correct.)
- Example 6.7, page 160, line (-4):  $100(1 - 0.003940175/0.2429355) = 98.3781\%$ .
- Exercise 6.11,  $\hat{\theta}_c$  on lines 3 and 5:  $\hat{\theta}_c = c\hat{\theta}_1 + (1 - c)\hat{\theta}_2$ .
- Page 172, third displayed equation. The expression on right is  $Var(g(X)) = nVar(\hat{\theta})$ .
- Example 7.1, the index of summation in the equation for  $\hat{\theta}$  is  $j$  (not  $i$ ).
- Page 222 “The jackknife estimate of standard error” para. 2, “radial” should be “radical”.
- Exercise 8.1: In the second edition, it should be Exercise 9.1 (or 9.0).
- Example 9.1, page 245: `print(boot.obj)` should be `print(boot.out)`.
- Example 9.7 code: Insert at top of code chunk

```
x <- log(mammals$brain)
y <- log(mammals$body)
L <- lm(y ~ x)
```

- Example 9.9, page 258 code lines 4, 5:

```
ystar <- dat$yhat + dat$r[i]
xstar <- dat$x
```

- Example 9.10, page 261: Insert the line

```
theta.hat <- boot.out$t0
```

between the lines starting `infl <-` and `jack <-`.

- Example 9.11: code on page 262

```
n <- NROW(patch)
J <- numeric(n)
b.freq <- boot.array(boot.out)
theta.b <- boot.out$t
```

- Equation (10.4): the upper limit on the sum is  $\binom{N}{n}$ , in (10.4) and also on the last line of page 266.
- Example 10.11: In the displayed equation,  $(0, 0)^2$  should be  $(0, 0)^\top$ .
- Exercise 10.3: Change “Example 10.2” to “Example 10.3”.
- Exercise 10.5: Exercise 10.10.4 should be Exercise 10.4.
- Last line of Section 12.1.2: For the ggplot version, “geom\_frepoly” should be “geom\_freqpoly”.

```
ggplot(geyser, aes(waiting)) + geom_freqpoly(binwidth=h)
```

- Example 13.4: In the 2nd, 3rd, and 4th displayed equations,  $z$  should be replaced with  $a$ .
- Example 13.13 code: First argument to `integrate()` should be the function `f1`, not `f`.
- Example 14.4: In the last displayed equation,  $f(y|\lambda) = \frac{1}{3} \sum_{j=1}^3 f_j(y|\lambda)$ .
- Examples 15.1 and 15.14: See note below about software changes.
- Example 15.1: In the call to `microbenchmark()`, remove the final comma after `1:n`.
- Example 15.20: In the Lahman package, data table “Master” has been renamed as “People”. Change the first line of code just above Example 15.21, and in the first sentence of p. 440.
- McGrath and Yeh (2005): The title is “A Quick, Compact Two-Sample Dispersion Test: Count Five”.

## Software Changes

This section covers updates caused by changes in the software from earlier versions.

### R and RStudio

- Section 15.3: Note that RStudio now has a Profile menu.

### microbenchmark package

Examples 15.1 and 15.14:

- microbenchmark package has been revised so that `autoplot.microbenchmark` is no longer exported.
- If ggplot2 is loaded, `autoplot()` displays the ggplot2 violinplot.
- `boxplot()` calls the R graphics function `boxplot()`.

### Remarks

- The simulation reported in Table 10.1 applied function `nn` in package `knnFinder` to search for nearest neighbors. Package `knnFinder` is no longer available. The results for the  $T_{n,3}$  test may differ somewhat from the table because the  $T_{n,3}$  test is now implemented with different software, function `ann` in package `yaImpute`.
- Exercise 10.2: Refers to the ranks within the pooled sample. Sort each sample before pooling. Note that if there are ties in the data, by default ranks of ties are averaged. Use `ties.method="random"` to avoid this problem. See Anderson [15].