

# Statistical Computing with R 2nd ed. Errata

Maria Rizzo

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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 5.12 code for Figure 5.12: In `stars` change `labels` argument to: `labels = as.character(x$sp)`
- 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 9.9, 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` before the last line of code.
- 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.
- 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)
```

- Examples 15.1 and 15.14: See note below about software changes.
- 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.

- In Example 5.11 (parallel coordinates) the lattice package function `parallel()` has been replaced by `parallelplot()`.
- Section 15.3: Note that R Studio now has a Profile menu.
- `microbenchmark` package has been revised so that `autoplot.microbenchmark` is no longer exported.

The NAMESPACE file now contains (since at least Version 1.4-7):

```
if (getRversion() >= "3.6.0") {  
  S3method(ggplot2::autoplot, microbenchmark)  
}
```

Readers can update Examples 15.1 and 15.14 replacing `autoplot` with `boxplot` or in Example 15.1 use `ggplot2::autoplot(mb)` for the violinplot. In 15.14:

```
getS3method("boxplot", class="microbenchmark")  
getAnywhere(boxplot.microbenchmark)
```

## 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].