Below is a list of corrections/typos found so far:

- p. 26, in lemma 2.1, both $a$ and $b$ are assumed to be *real-valued* deterministic constants.
- p. 32, first line, missing transpose. The sentence should read "thus lying in the (left) *null space* of $x$, i.e., $e \in N(x^T)$".
- p. 33, missing transposes: the vectors in Theorem 2.3 should be defined as $z = [x^T \ y^T]^T$ and $E\{z\} = [m_x^T \ m_y^T]^T$.
- p. 42, eq. (3.17), should read $r_{x,y}(t_1, t_2) = r_{x,y}(t_1 - t_2, 0) \triangleq r_{x,y}(\tau)$, with $\tau = t_1 - t_2$.
- p. 46, eq (3.34), missing a term in the last equality, the equation should read:

$$E\{r_y^b(k)\} = \frac{1}{N}E\{\psi_k\} = \frac{N - k}{N} (r_y(k) - V\{\hat{m}_y\})$$

$$= r_y(k) - \frac{k}{N} r_y(k) - \frac{N - k}{N} V\{\hat{m}_y\}$$

- p. 59, above (3.87), the variable substitution should be $m = t - \ell$.
- p. 120, last line, wrong sign, $\nabla \nabla_1^2 y_t = (1 - c_1 z^{-1})(1 - c_12 z^{-12}) e_t$.
- p. 130, just above (4.46), the text *indexExample!Voiced speech* should be removed.
- p. 152, missing conjugate transpose; (5.52) should read:

$$X = [x_{p+1} \ldots x_N]^*$$

- p. 166, typos in formula. Eq (5.15) should read

$$[I_{\theta}]_{k,\ell} = \left[\frac{\partial m_{\theta}}{\partial \theta_k}\right]^T \Sigma_{\theta}^{-1} \left[\frac{\partial m_{\theta}}{\partial \theta_\ell}\right] + \frac{1}{2} \text{tr} \left\{ \Sigma_{\theta}^{-1} \left[\frac{\partial \Sigma_{\theta}}{\partial \theta_k}\right] \Sigma_{\theta}^{-1} \left[\frac{\partial \Sigma_{\theta}}{\partial \theta_\ell}\right] \right\}$$

- p. 180, Figure 5.5(a) should appear as in Figure 1.1(a), on the next page.
Figure 1.1: Cumulative periodogram test for (a) a white noise, and (b) for an AR process, with the corresponding 1% and 5% confidence intervals.

- p. 243, the dimension of $y_t$ should be $m$, not $p$, in the equation at the top of the page, reading

$$f(Y) = \prod_{t=1}^{N} \left( (2\pi)^m \det(\Sigma) \right)^{-1/2} \exp \left\{ \frac{-1}{2} [y_t - X\theta]^T \Sigma^{-1} [y_t - X\theta] \right\}$$

$$= \left( (2\pi)^m \det(\Sigma) \right)^{-N/2} \exp \left\{ \frac{-1}{2} \sum_{t=1}^{N} [y_t - X\theta]^T \Sigma^{-1} [y_t - X\theta] \right\}$$

- p. 253, Problem 7.1, § $E\{\hat{\Sigma}_y\}$ should read $E\{\hat{\Sigma}_y\}$.

- p. 254, Table 7.5, $p$ in the first column should be ordered from 1 to 5, not 0 to 4. The same in table D.4 in the solution on p. 341.

- p. 268, example 8.4. There are errors in this example; it will be removed.

- p. 280, eq (8.148), the last time indices are missing. It should read:

$$\hat{y}_{t+k|t} = C\hat{x}_{t+k|t} = CA^k\hat{x}_{t|t}$$

- p. 289, line 2, the size of $A$ should be $A \in \mathbb{C}^{m \times m}$.

- p. 303, solution 3.1, missing minus sign. In the second and third line, it should read $\omega_0(t-k)$ and $-\omega_0k$, respectively.

- p. 314, solution 3.14, sign error. The first equation should read:

$$r_z(\tau) = C\{x_t + y_t, x_{t-\tau} + y_{t-\tau}\} = r_x(\tau) + r_y(\tau)$$

- p. 317, solution 4.4, sign error. The second equation should read:

$$r_y(\tau) = E\left\{ \left( x_t - x_{t-S}\right) \left( x_{t-\tau} - x_{t-\tau-S}\right) \right\}$$

$$= 2r_x(\tau) - r_x(\tau + S) - r_x(\tau - S)$$
• p. 328, solution 5.9, missing square in fourth equation. It should read:

\[ r_y(0) = \frac{b_0^2 \lambda^2}{1 - a_0^2} + \frac{1 + c_0^2 - 2a_0c_0}{1 - a_0^2} \sigma^2 \]

• p. 341, solution 8.2. The state equation should read:

\[
\begin{bmatrix}
-1 & -2 & 1 & 0 \\
-3 & -4 & 0 & 1 \\
-5 & -6 & 0 & 0 \\
-7 & -8 & 0 & 0
\end{bmatrix}
\begin{bmatrix}
x_t \\
e_t
\end{bmatrix}
\begin{bmatrix}
8 & 8 \\
8 & 8 \\
8 & 8 \\
8 & 8
\end{bmatrix}
\]

It is worth noting that the example is poorly chosen as the AR-polynomial is unstable.