Corrections and Additions

• Page 54: In (2.54) replace $h_k^0$ by $h_{k-\ell}^0$.

• Note that the system in Chapter 3 is assumed to be stable so that the Sylvester equation (3.2) on page 65 has a unique solution.

• The definition of the time constants $T_i, i = 1, \ldots, 4$, in the model defined on page 71 used in the examples in Chapter 3 is missing. The time constants are given by:

\[ T_i = \frac{A_i}{a_i} \sqrt{\frac{2h_i}{g}}, \quad i = 1 \ldots 4. \]

• Page 88: Note that the criterion in Equation (4.16) is the continuous-time counterpart to the criterion in (4.3). When including integral states the extended continuous-time criterion is:

\[ V = \int_0^T \left( x_T(t) \left[ \begin{array}{cc} Q_x & 0 \\ 0 & Q_f \end{array} \right] x_e(t) + u_T(t)Q_uu(t) \right) dt \]

• Page 106: In the second equation and in the sentence that follows, replace $p$ by $p$.

• Page 108: In the last paragraph, replace “DO set point ($S_{O,2}(t)$) and the internal recirculation flow rate ($Q_i(t)$)” by “two pairings $S_{NO,2}-Q_i$ and $S_{NH,2}-S_{O,2}(t)$”.

• Page 134: In the third row replace price by price.

• In the Bibliography, the references Häggblom(1997) and Häggblom(2008) should be listed next to each other. Currently the first reference is listed on page 157 and the other on page 158.