

This document will be updated whenever I find typo, errors, etc. in the book or if I feel that additional comments could clarify some of the material presented in the book.

- Preface, line -2, first paragraph: initiated by work of \rightarrow initiated by
- p. 9, line 1: $l \in s$ should be $l \in \mathcal{S}$
- p. 9, line -11: $\max_{l \in s} a_l$ should be $\min_{l \in s} a_l$.
- The first paragraph on the first page of Chapter 3: To this end, let R be a matrix that is defined as follows: the $(l, r)^{\text{th}}$ entry of R is 1 if source r 's route passes through link l and is zero otherwise. Thus, R is an $|\mathcal{L}| \times |\mathcal{S}|$ *routing matrix* which provides information on the links contained in all the source's routes in the network.
- p. 45, line -2: alternate which allows \rightarrow alternate algorithm which allows
- Equation (5.2) on p. 68 should be

$$\delta\dot{x} = -\kappa\hat{x} \left(\frac{1-\hat{p}}{\hat{x}^2} \delta x(t) + \frac{1}{\hat{x}} \delta p(t-T) + \beta\hat{x} \delta p(t-T) + \beta\hat{p} \delta x(t) \right).$$

- The third equation from the bottom on p. 68 should be

$$(1 + G(s))x(s) = \frac{x_0}{s + \frac{\kappa(1-\hat{p})}{\hat{x}} + \kappa\beta\hat{p}\hat{x}}.$$

- p. 69: The condition for TCP stability at the end of Section 5.1 can be strengthened to

$$\frac{\hat{p}'}{\hat{p}} \leq \frac{\pi T}{2}.$$

It can be simplified further if we assume that

$$f(x) = \left(\frac{x-c}{x} \right)^+.$$

In this case, using the equilibrium expression for \hat{x} and the fact that $\beta = 1/2T^2$, the condition for TCP stability becomes

$$\hat{x}T \leq \pi,$$

which suggests that TCP is stable if the equilibrium window size $\hat{x}T$ is small.

- Equation (5.8) on p. 70: The condition for TCP stability with multiple sources can be strengthened to

$$\frac{\hat{p}'N}{\hat{p}} \leq \frac{\pi T}{2}.$$

Again, if

$$f(x) = \left(\frac{x-c}{x} \right)^+,$$

this reduces to

$$\frac{\hat{x}}{N}T \leq \pi.$$

Noting that the left-hand side of the above condition is the equilibrium window size of a single source, the same interpretation as in the case of a single source also holds for the case with multiple sources.

- page 80: Theorem 5.7 should be stated as follows.

Theorem 1 *Let Z and P denote the number of zeros and poles, respectively, of $L(s)$ that lie in the right-half of the complex plane. Then, the number of times that $L(j\omega)$ encircles the origin in the clockwise direction, as ω is varied from $-\infty$ to ∞ , is equal to $Z - P$.*