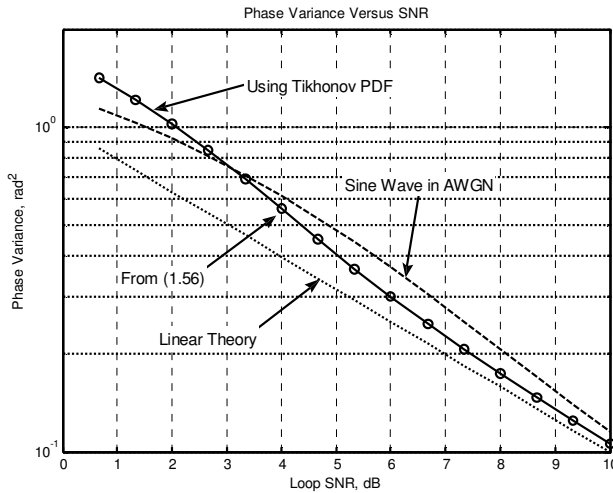


# Book Errata

1. Page 3, the term “lead-lag” in Table 1-1 should rather be “lag-lead.” This same correction applies several times in Chapter 6 as well.
2. Page 7, first paragraph, lines 3 and 4, *12 dB/octave* should instead both be *6 dB/octave*.
3. Page 7, Figure 1-6 caption, *12 dB per octave* should instead be *6 dB per octave*.
4. Page 7, Figure 1-7 caption, *12 dB per octave* should instead be *6 dB per octave*.
5. The curve labeled *From (1.58)* in Figure 1-23 should be labeled *From (1.56)*.



**Figure 1-23** Phase variance of several estimators versus SNR: (i) a PLL based on the Tikhonov PDF (1.56), (ii) a sine wave in AWGN from (1.28), and (iii) linear theory versus SNR.

6. Page 65, Table 2-6, second row in table, third column: the  $\alpha$ 's should be replaced with  $\gamma$ 's. Same table, third row, second column, should read as

$$\frac{1}{2} + \frac{1}{\pi} \tan^{-1} \left( \frac{\lambda}{\alpha} \right)$$

7. Page 136, definition for  $\mathcal{L}(f)$ : Originally, this quantity was defined as given in the text and (4.67) subject to (4.68). Later, the IEEE redefined the quantity in reference [41] of that chapter to with an equal sign (rather than the approximation sign), and without the restriction imposed by (4.68). Some avoid the use of  $\mathcal{L}(f)$  altogether now, simply to avoid this possible confusion.
8. Page 138, (4.76), the  $\log_{10}$  function should be  $\log_e$ .

$$\sigma_{\theta}^2 = \sum_{m=1}^M \left\{ \begin{array}{ll} 10^{0.1s_m} f_m \log_e \left( \frac{f_{m+1}}{f_m} \right) & \text{for } \alpha_m = -1 \\ \frac{f_m}{\alpha_m + 1} \left[ \left( \frac{f_{m+1}}{f_m} \right)^{\alpha_m + 1} - 1 \right] 10^{0.1s_m} & \text{for } \alpha_m \neq -1 \end{array} \right\}$$

9. Page 139, line 5:  $\alpha > -2$  should be replaced by  $\alpha < -2$ .
10. Page 156, Table 4A-1. Similar to item 6 in this list. In the second row in table, third column: the  $\alpha$ 's should be replaced with  $\gamma$ 's.
11. Page 227, Figures 6.4 and 6.5, the horizontal axis should be labeled "Normalized Frequency" rather than "Normalized Radian Frequency."
12. Page 274, second non-indented paragraph, last sentence: Sentence should read as follows: Since the transfer function between the VCO self-noise and the noise observed at the PLL output is given by  $H_2(s)$  in (6.10), the gain-peaking factor is given *approximately* by  $-20 \log_{10} (|1 - \exp(-j\phi_v)|)$  *for small phase margin values*.
13. Page 312, Figure 7.11, the curve parameters should be labeled as  $\omega_i T_s$  rather than  $\omega T_s$ .
14. Page 366, first complete paragraph, first sentence should read: "A state sequence that uses *most* of the available states should be startable from *nearly* every possible set of initial conditions..."