

Corrections for 04361 Digital Signal Processing

JL/jaas

November 16, 1999

Proakis & Manolakis: Digital Signal Processing, 1996

- p. 110 Line 9 f.t.: any recursive system... is an IIR system. This statement is not correct. A recursive system might have finite impulse response (see e.g., Fig. 2.36). This is the case if the poles of the system transfer function are canceled by zeros.
- p. 276 Figure 4.22: lower part: $x(n) = \int_{-1/2}^{1/2} X(f)e^{j2\pi fn} df$.
- p. 409 Equation (5.1.40): $e^{j2\pi k F_0 t}$.
- p. 431 Equation (5.3.9): $n = M - 1, M, M + 1, \dots, N - 1$.
- p. 436 Line before (5.4.11): Replace $X(\omega)$ by $\widehat{X}(\omega)$.
- p. 449 line 13 f.t.: $(4N - 2) \rightarrow (2N - 2)$.
- p. 450 Line 1, (item 3): Replace by "2N(2N-1) real additions."
- p. 492 Equation (4.4.16): The factor 2/3 in front should be 1 since each butterfly involves 6 rather than 4 real multiplications.
- p. 516 Example 7.2.2: $K_2 = 1/2$.
- p. 570 Equation (7.6.4): $D(z) = 1 + \sum_{k=1}^N \dots$.
- p. 570 Equation (7.6.9): no minus signs.
- p. 572 line 9 f.t.: quadrant \rightarrow quadrant.
- p. 580 line 15 f.b.: $-2^{-(b+2)} < e_h(n) < 2^{-(b+2)}$.
- p. 757 Equation (9.2.10), last line: "2 σ_x^2 [1 - $\gamma_x x(1)$]... at $m = 1$." replace by "2 σ_x^2 [1 - $\rho_{xx}(1)$], where $\rho_{xx}(1)$ is the value of the normalized autocorrelation sequence $\rho_{xx}(m) = \gamma_{xx}(m)/\gamma_{xx}(0)$ of $x(n)$ evaluated at $m = 1$."
- p. 777 Problem 9.11: $\sigma_n^2 \approx \frac{\pi^4 \sigma_e^2}{5} \dots$.
- p. 792 Equation (10.4.10): $V(\omega_v) \rightarrow W(\omega_v)$.
- p. 823 Figure 10.31: Arrow is missing at the output of Clock A.
- p. 865 Equation (11.3.3): $\Gamma_p = \dots$.
- p. 867 Below eq. (11.3.3): $,_p(i, j) = ,_p(i - j)$ replace by: All $,_p(i, j)$ for which $i - j = k$, $k = 0, \pm 1 \dots \pm (p - 1)$ are equal.
- p. 878 Figure 11.6: All $-K_p^*$ should be replaced by K_p^* .
- p. 882 Equation (11.6.2): $E|\dots|^2$.