

**DSP First 2<sup>nd</sup> edition ERRATA.** These are mostly typos, but there are a few crucial mistakes in formulas. **Red shading** indicates the error; **yellow shading** the correction.

*JHMcClellan, May 20, 2016*

- page 92, problem P-3.6, part (d), delete a period from the displayed equation:

*error:*  $x(t) = \sum_{k=-\infty}^{\infty} a_k e^{j\omega_0 t}$  .

*correction:*  $x(t) = \sum_{k=-\infty}^{\infty} a_k e^{j\omega_0 t}$  .

- page 137, problem P-4.5, part (c), incorrect definition of  $v(t)$ :

*error:* Define another new signal  $v(t) = r(t) + r(t - 0.02)$  . Determine the Nyquist sampling rate for  $z(t)$  .

*correction:* Define another new signal  $v(t) = x(t) + x(t - 0.02)$  . Determine the Nyquist sampling rate for  $v(t)$  .

- page 137, Figure P-4.6, incorrect complex amplitude at  $f = +500$  Hz:

*error:* The label for the spectrum line at  $f = +500$  is  $7e^{-j0.3\pi}$

*correction:* The sign in the exponent in the label for the spectrum line at  $f = +500$  should be positive:  $7e^{+j0.3\pi}$  , but the plus sign is redundant, so change to  $7e^{j0.3\pi}$

- page 137, problem P-4.6, refers to Fig. P-4.6 which has an error:

*correction:* Label for the spectrum line at  $f = +500$  should be positive, i.e.,  $7e^{j0.3\pi}$

- page 137, problem P-4.7, refers to Fig. P-4.6 which has an error:

*correction:* Label for the spectrum line at  $f = +500$  should be positive, i.e.,  $7e^{j0.3\pi}$

- page 138, problem P-4.8, refers to Fig. P-4.6 which has an error:

*correction:* Label for the spectrum line at  $f = +500$  should be positive, i.e.,  $7e^{j0.3\pi}$

- page 344, problem P-8.17, window length in figure title is correct

*error:* ... Hann window of length  $L = 256$  , overlap was  $200$  , and sampling rate ...

*correction:* ... Hann window of length  $L = 500$  , overlap was  $450$  , and sampling rate ...

- page 344, problem P-8.18, change window length for the sketch

*error:* ... Hann window of length  $L = 256$  , overlap was  $200$  , and sampling rate ...

Make a sketch ... if the window length was  $L = 100$  .

*correction:* ... Hann window of length  $L = 500$  , overlap was  $450$  , and sampling rate ...

Make a sketch ... if the window length was  $L = 200$  .

- page 460, problem P-10.14, definition of  $S_6$

*error:*  $y[n] = \sum_{k=0}^2 x[n - k]$

*correction:*  $y[n] = \sum_{k=0}^3 x[n - k]$

10. page 462, problem P-10.17, definition of  $\mathcal{S}_6$

*error:*  $y[n] = \sum_{k=0}^2 x[n-k]$

*correction:*  $y[n] = \sum_{k=0}^3 x[n-k]$

11. page 463, problem P-10.18, second line of the problem statement:

*error:* one of five possible frequency responses (J–N). In the ...

*correction:* one of five possible frequency responses (A–E). In the ...

12. page 543, problem P-C.1, part (c) should refer to an equation in Appendix C, even though both have the same formula.

*error:* ... in the finite Fourier representation (3.37).

*correction:* ... in the finite Fourier representation (C.10) or (3.37).