ERRATA FOR THE BOOK:

THE SCIENCE OF ELECTRIC GUITARS AND GUITAR ELECTRONICS

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Jarmo Lähdevaara

Unfortunately some errors have been found from the text after the book was published on the 1st of November 2012. However, this was to be expected because English is not the author's native language and even statistically it is impossible to create a 600 pages worth of material without errors. In addition to several missing hyphens between a word compound, such as *non-inverting* or *single-valued*, the following errors have been found:

1. The factor of 2π is missing from the last equation on page 20. The equation should read:

$$\Im(X_k) = \sum_{n=0}^{N-1} -i \cdot x_n \cdot \sin\left(2\pi n + 2\pi k \frac{n}{N}\right) = \sum_{n=0}^{N-1} -i \cdot x_n \cdot \sin\left(2\pi k \frac{n}{N}\right)$$

Because of the same mistake, the following equation on page 21 should be:

$$\Im(X_k) = \sum_{n=0}^{N-1} -i \cdot x_n \cdot \sin\left(2\pi n - 2\pi k \frac{n}{N}\right) = \sum_{n=0}^{N-1} i \cdot x_n \cdot \sin\left(2\pi k \frac{n}{N}\right).$$

2. The last equation on page 214 should have the π squared, because the equation is simply rotated from the familiar $\omega^2 = \dfrac{1}{LC}$ definition of the LC circuit resonant frequency. The correct equation to evaluate the pickup capacitance from the measured inductance is

$$C = \frac{1}{4\pi^2 f_r^2 L}.$$

3. The second equation on page 155 is lacking of a sine function. The corrected equation is

$$\partial A_n = \frac{\left[\sin\left(\frac{n\pi(p+\partial p)}{L}\right) - \sin\left(\frac{n\pi p}{L}\right)\right]\sin\left(\frac{n\pi P}{L}\right)}{n^2 \sin\left(\frac{\pi p}{L}\right)} \, dp.$$

4. The term $R_1 R_1 (C_1 C_2 + C_1 C_3 + C_2 C_3)$ in coefficients a and c of equation (6.32) should start with $R_1 R_2$ instead of $R_1 R_1$. The whole section covering the phase-shift oscillator has been rewritten in the 2014 pdf-revision of the book.

5. The acoustic impedance R_A in Figure 8.12 should be drawn parallel to the speaker cone impedance, instead of the way it has been now drawn to be in series.

6. In equation right after equation (3.8) I have forgotten to divide out L when inserting coefficients A_n. The correct equation would be:

$$\frac{\partial y(x,t)}{\partial t} = -\frac{2ac_T}{\pi}\left(\frac{1}{p}+\frac{1}{L-p}\right)\sum_{n=1}^{\infty}\frac{1}{n}\sin\left(\frac{n\pi p}{L}\right)\sin\left(\frac{n\pi x}{L}\right)\sin\left(\frac{c_T n\pi t}{L}\right).$$

7. The V_{B2} measurement of the wah circuit transistor Q_2 in Table 6.4 resulted in an obscure value. I did not realise the reason until later. I had done the measurement using 1 megohm multimeter probes, and the input impedance of Q_2 in the wah circuit is close to 10 megohms. Hence, when inserting the multimeter across Q_2, the parallel impedance of the probes and transistor caused the circuit to change considerably, which resulted in a faulty value of measurement. Later measurement using 10 megohm probes proved that V_{B2} is actually close to 4.2 volts.