# Errata: Parameter Extraction Book

## Chapter 5

(1) Page 129. Equation 5.7 that now reads:

$$Q_{GS}(V) = \begin{cases} -\dfrac{C_{GS0}\phi}{\eta+1}\left(1-\dfrac{V}{\phi}\right)^{\eta+1} & V < V_0 \\[4mm] -\dfrac{C_{GS0}\phi}{\eta+1}\left(1-\dfrac{V_0}{\phi}\right)^{\eta+1} + C_{GS0}\cdot(V-V_0) & V \geq V_0 \end{cases}$$

Should instead be:

$$Q_{GS}(V) = \begin{cases} -\dfrac{C_{GS0}\cdot\phi}{\eta+1}\left(1-\dfrac{V}{\phi}\right)^{\eta+1} & V < V_0 \\[4mm] -\dfrac{C_{GS0}\cdot\phi}{\eta+1}\left(1-\dfrac{V_0}{\phi}\right)^{\eta+1} + C_{GS0}\cdot\left(1-\dfrac{V_0}{\phi}\right)^{\eta}\cdot(V-V_0) & V \geq V_0 \end{cases}$$

(format and second term in bottom line corrected)

(2) Page 131. Equation 5.8 that now reads:

$$\begin{bmatrix} V_1^{int} \\ V_2^{int} \end{bmatrix} = \begin{bmatrix} V_1^{ext} \\ V_2^{ext} \end{bmatrix} - \begin{bmatrix} R_g + R_s & R_s \\ R_s & R_d + R \end{bmatrix} \cdot \begin{bmatrix} I_1^{DC} \\ I_2^{DC} \end{bmatrix}$$

Should instead be:

$$\begin{bmatrix} V_1^{int} \\ V_2^{int} \end{bmatrix} = \begin{bmatrix} V_1^{ext} \\ V_2^{ext} \end{bmatrix} - \begin{bmatrix} R_g + R_s & R_s \\ R_s & R_d + R_s \end{bmatrix} \cdot \begin{bmatrix} I_1^{DC} \\ I_2^{DC} \end{bmatrix}$$

(Subscript on bottom right added)

(3) Page 141. Equation 5.12 that now reads:

$$Y_{ij} = \left[ \left( I - zS \right) \left( I + zS \right)^{-1} \right]_{ij}$$

Should instead be:

$$Y_{ij} = \frac{1}{Z_0} \left[ \left( I - S \right) \left( I + S \right)^{-1} \right]_{ij}$$

(4) Page 145. Middle of the page:

"The necessary and sufficient conditions for the terminal charges to be recovered from bias-dependent capacitance matrix elements defined from measured data using Equations (5.13)…"

Should instead be:

The necessary and sufficient conditions for the terminal charges to be recovered from bias-dependent capacitance matrix elements defined from measured data using Equations (5.11)…"

(referenced equation number changed).

(5) Equation 5.15 that now reads:

$$\frac{\partial C_{ij}(V_1, V_2)}{\partial V_k} = \frac{\partial C_{ik}(V_1, V_2)}{\partial V_i}$$

Should instead be:

$$\frac{\partial C_{ij}(V_1, V_2)}{\partial V_k} = \frac{\partial C_{ik}(V_1, V_2)}{\partial V_j}$$

(last subscript changed from 'I' to 'j')

(6) Page 153. First paragraph.
"…in equation (5.13) into the mixed representation."

Should instead be:

"…in equation (5.11) into the mixed representation."

(referenced equation number changed)