Global Sensitivity Analysis - The Primer

ERRATA CORRIGE, (update December 21 2022)

Chapter 1

<u>Page 16, Table 1.1 third column:</u> the values of $\left(S_{Z_i}^{\sigma}\right)^2$ are 0.033, 0.133, 0.300, 0.533.

<u>Page 18, Table 1.2:</u> it is not $\Omega = (4,3,2,1)$ but $\Omega = (1,2,3,4)$.

<u>Page 30, not numbered formula:</u> it is Ω_i instead of Ω_j

<u>Page 36, formula 1.45:</u> it is $S_{\Omega,Z} = 1 - S_{\Omega} - S_Z$

<u>Page 47, second formula, right-hand side:</u> it is not $\dfrac{\sqrt{\pi}}{4}$ but $\dfrac{\sqrt{\pi}}{4\sqrt{a^3}}$.

Chapter 4

<u>Page 165:</u> the correct formulas are:

$$S_i = \frac{V[E(Y|X_i)]}{V(Y)} = \frac{\frac{1}{N}\sum y_A^{(j)} y_{C_i}^{(j)} - \frac{1}{N^2}\sum y_A^{(j)} \sum y_B^{(j)}}{\frac{1}{N}\sum \left(y_A^{(j)}\right)^2 - f_0^2} \quad (4.21)$$

$$S_{Ti} = 1 - \frac{V[E(Y|\mathbf{X}_{-i})]}{V(Y)} = 1 - \frac{\frac{1}{N}\sum y_B^{(j)} y_{C_i}^{(j)} - f_0^2}{\frac{1}{N}\sum \left(y_A^{(j)}\right)^2 - f_0^2} \quad (4.23)$$

<u>Page 182:</u> The formula for V_{13} must be substituted with

$$V_{13} = \frac{8b^2\pi^8}{225}$$

Page 168, in the RBD code:

spectrum=(abs(fft(yr))).^2/N   should be: spectrum=(abs(fft(yr))/N).^2
Page 171, Table 4.1: the first order indices for factors gamma and k are both 0.43 and the total effects are both 0.58. The values tabulated in the book were obtained at smaller sample size than the one indicated, hence far from convergence.