This document sets out the known errata (as of January 30, 2015) in the book

Schlögl, E. (2013) *Quantitative Finance: An Object-oriented Approach in C++,* 1st edition, Chapman & Hall/CRC Financial Mathematics Series. Taylor and Francis, Florida, USA.

Chapter 2

p. 57 "CD-ROM" should be replaced by "website"

Chapter 6

p. 194 Caption on Table 6.1 should read "USD/EUR at–the–money (ATM) implied volatilities, 25%-delta (25D) and 10%–delta (10D) risk reversals (RR) and butterflies (BF) on 24 January 2008. Source: Numerix CrossAsset XL"

p. 195 Caption on Table 6.2 should read "Fit to one–month maturity USD/EUR option data on 24 January 2008."

p. 198 Eq. (6.34) should read

$$dS(t) = \mu(t)S(t)dt + \sigma(t)S(t)dW_1(t)$$

p. 198 Below the third equation, "Given an additional asset V," should be "Given an additional asset V_1," At the end of the same paragraph, "and short Δ, units of V_1" should be "and short Δ_1 units of V_1"

p. 198 Eq. (6.36) should read

$$\begin{aligned} dV = \Big(& \partial_1 C(t,S(t),\sigma(t)) + \frac{1}{2}\partial_{2,2} C(t,S(t),\sigma(t))S(t)^2\sigma^2 \\ & + \partial_{2,3} C(t,S(t),\sigma(t))\rho\sigma(t)q(S(t),\sigma(t),t)S(t) \\ & + \frac{1}{2}\partial_{3,3} C(t,S(t),\sigma(t))q^2(S(t),\sigma(t),t)\Big)dt \\ - \Delta_1 \Big(& \partial_1 V_1(t,S(t),\sigma(t)) + \frac{1}{2}\partial_{2,2} V_1(t,S(t),\sigma(t))S(t)^2\sigma^2 \\ & + \partial_{2,3} V_1(t,S(t),\sigma(t))\rho\sigma(t)q(S(t),\sigma(t),t)S(t) \\ & + \frac{1}{2}\partial_{3,3} V_1(t,S(t),\sigma(t))q^2(S(t),\sigma(t),t)\Big)dt \\ + \Big(& \partial_2 C(t,S(t),\sigma(t)) - \Delta_1\partial_2 V_1(t,S(t),\sigma(t)) - \Delta\Big)dS(t) \\ & + \Big(\partial_3 C(t,S(t),\sigma(t)) - \Delta_1\partial_3 V_1(t,S(t),\sigma(t))\Big)d\sigma(t) \end{aligned}$$

p. 199 Eq. (6.38) should read

$$\frac{\partial_1 C - \frac{1}{2}\sigma^2 S^2 \partial_{2,2} C + \rho\sigma S q \partial_{2,3} C + \frac{1}{2}q^2\partial_{3,3} C + rS\partial_2 C - rC}{\partial_3 C} = \dots$$

p. 199 Eq (6.39) should read

$$\partial_1 C + \frac{1}{2}\sigma^2 S^2 \partial_{2,2} C + \rho\sigma S q \partial_{2,3} C + \frac{1}{2} q^2 \partial_{3,3} C + rS\partial_2 C - C = \Psi(S, \sigma, t)\partial_3 C$$

p. 201 Equation (6.45) should read

$$-\frac{\partial \hat{C}}{\partial \tau} + \frac{1}{2} v \partial_{1,1} \hat{C} - \frac{1}{2} v \partial_1 \hat{C} + \frac{1}{2}\eta^2 v \partial_{2,2} \hat{C} + \rho\eta v \partial_{1,2} \hat{C} + k(\theta - v)\partial_2 \hat{C} = 0$$

p. 201 The last equation on the page should read

$$\gamma = \frac{\eta^2}{2}$$

p. 202 The fourth equation from the bottom of the page should read

$$D(u, \tau) = r_- \frac{1 - e^{-d\tau}}{1 - g e^{-d\tau}}$$

p. 202 The third equation from the bottom of the page should read

$$C(u, \tau) = k\left(r_- \tau - \frac{2}{\eta^2} \ln\left(\frac{1 - g e^{-d\tau}}{1 - g}\right)\right)$$

Chapter 7

p. 204 Eq. (7.4) should read

$$\hat{\sigma}_N^2 = \frac{(b-a)^2}{N(N-1)} \sum_{i=1}^{N} \left(f(u_i) - \frac{1}{(b-a)} \hat{I}_N\right)^2$$

p. 204 Eq. (7.5) should read

$$\left[\hat{I}_N - \mathcal{N}^{-1}\left(1 - \frac{\alpha}{2}\right)\hat{\sigma}_N, \hat{I}_N + \mathcal{N}^{-1}\left(1 - \frac{\alpha}{2}\right)\hat{\sigma}_N\right]$$

p. 204 (7.6) should read

$$\frac{(b-a)^2}{N-1} \sum_{i=1}^{N} \left(f(u_i) - \frac{1}{(b-a)} \hat{I}_N\right)^2$$

p. 221 Weak convergence should read

$$\left|E[g(X(T))] - E[g(\hat{X}_\delta(T_M))]\right| \leq C\delta^\beta \qquad \forall g \in \mathcal{C}, \delta < \delta_0$$