Correction and Supplement
to “Derivative Securities and Difference Methods, Part I”

On page 15 lines 5 and 6 from the bottom, take “worth $68 each” away.

At the bottom of page 26 and the beginning of page 27, take “with constant $\mu$ and $\sigma$” away and change “$dS = \mu S dt + \sigma S dX$” into “$dS = \mu(S, t) dt + \sigma(S, t) dX$."

On page 28 line 22, change “$\sigma, r$,” into “$r$”.

On page 30 line 9 from the bottom, change “shares” into “units”.

On page 54 line 3 from the bottom, change “will” into “might also”.

On page 55, change line 6 into
\[
\frac{\partial G}{\partial \tau}(S, \tau) - L_{S, \tau} G(S, \tau) \leq 0
\]

On page 55, change line 10 into
\[
\frac{\partial G}{\partial \tau}(S, \tau) - L_{S, \tau} G(S, \tau) > 0,
\]
where $L_{S, \tau} = L_{S, \tau}$.

On page 77, line 5 add “for $S \in [0, S_f]$,” before $C_\infty(S)$.

On page 81, line 13 should be “$+ \sum_{i=1}^{n} \frac{\partial^2 V}{\partial S_i \partial t} dS_i dt + \frac{1}{2} \frac{\partial^2 V}{\partial t^2} (dt)^2 + \cdots$.”

On page 100 line 20, change “Show” into “Find the probability density function of the random variable $S_1 + S_2$ and using this function, show”.

On page 108 line 6 from the bottom, change “$V(\xi, 0)$” into “$V(\xi, \tau)$”.

On page 109, take the last sentence away.
On page 111 line 3 from the bottom, change “dividend” into “unpaid dividends”.

On page 120, change line 3 into
\[ c_1(S,t) = \left( \frac{B_l}{S} \right)^{2(r-D_0-\sigma^2/2)/\sigma^2} c\left( \frac{B_l^2}{S},t \right) \text{ for } S \geq B_l \text{ if } B_l \leq E. \] (3.4)

On page 120, change line 21 into
\[ \times \left[ \frac{B_l^2}{S}e^{-D_0(T-t)}N\left( \bar{d}_1(B_l) \right) - Ee^{-r(T-t)}N\left( \bar{d}_1(B_l) - \sigma\sqrt{T-t} \right) \right], \]

On page 142, change line 14 into
\[ \frac{\partial V}{\partial t} + \frac{1}{2} \sigma^2 S^2 \frac{\partial^2 V}{\partial S^2} + (r-D_0) S \frac{\partial V}{\partial S} - rV = 0, \]

On page 184 line 9, “time t” should be “time t_0”.

On page 193 line 17, change “Asian” into “average strike”.

On page 193 line 3 from the bottom, add “(2.81)” after the word “derivatives”.

On page 193 lines 1 and 2 from the bottom, change “the equation to an equation” into “an average strike option problem to a problem”

On page 194, change lines 17-19 into “volving the maximum realized price \( H \), and reduce the partial differential equation to a partial differential equation involving only two independent variables and the boundary condition to a boundary condition involving only one independent variable.”

On page 199 line 1 from the bottom add “, \( \tau \) denoting \( T - t \)” before the period “.”.

On page 203 line 1 from the bottom change “relation.” into “relation and the result of Problem 26.”.
On page 223 lines 11 to 12 from the bottom, take “the cash price (dirty price) of a bond, not” away. After “the quoted price (clean price).”, add the following:

"In practice the coupon is not paid continuously, so the equation should be

\[
\frac{\partial V_b}{\partial t} + \frac{1}{2} \sigma^2 \frac{\partial^2 V_b}{\partial r^2} + (\mu - \lambda \sigma \omega) \frac{\partial V_b}{\partial r} - rV_b + \sum_i k_i \delta(t - t_i) = 0.
\]

In this case \( V_b \) gives the cash price (dirty price)."

On page 226 line 12 from the bottom, change “\((t^* - T)/2\)” into “\(2(t^* - T)\)".