

Correction to “Derivative Securities and Difference Methods, Part II”

On page 314 lines 8-9 from the bottom should be

where $b(0, \tau) = a(0, \tau) = a_x(0, \tau) = b(1, \tau) = a(1, \tau) = a_x(1, \tau) = 0$ and $a(x, \tau) \geq 0$. This problem can be approximated by

On page 324, h) should be

$$\frac{\partial^2 u}{\partial x \partial y}(x_m, y_l, \tau^n) \approx \frac{1}{2\Delta x} \left[\frac{u(x_{m+1}, y_{l+1}, \tau^n) - u(x_{m+1}, y_{l-1}, \tau^n)}{2\Delta y} - \frac{u(x_{m-1}, y_{l+1}, \tau^n) - u(x_{m-1}, y_{l-1}, \tau^n)}{2\Delta y} \right].$$

On page 365, above the captions of Figs 6.7 and 6.8, “ x ” should be “ η ”.

On page 394, on the last row of Table 6,21, the number 0.002678 should be 0.026775.

On page 397 line 7, “is” should be “are”.

On page 421 line 3, “ $\frac{\partial u}{\partial \bar{\tau}}$ ” should be “ $\frac{\partial u}{\partial \tau}$ ”.

On page 426 line 4, “ $s_f(t)$ ” should be “ $s_f(\tau)$ ”.

On page 426 line 16, “ $\frac{1}{\left(s_f^{(j-1)} + s_f^n\right)}$ ” should be “ $\frac{-1}{\left(s_f^{(j-1)} + s_f^n\right)}$ ”.

On page 482 line 14, “ 1000×1000 ” should be “ 10000×10000 ”.

On page 491, lines 6-11 from the bottom should be

$$= 10^{-3} \begin{bmatrix} 0.4644 & 0.4758 & 0.4637 & 0.4224 & 0.3776 & 0.2993 \\ 0.4758 & 0.4916 & 0.4818 & 0.4413 & 0.3956 & 0.3145 \\ 0.4637 & 0.4818 & 0.4760 & 0.4392 & 0.3952 & 0.3161 \\ 0.4224 & 0.4413 & 0.4392 & 0.4109 & 0.3724 & 0.3014 \\ 0.3776 & 0.3956 & 0.3952 & 0.3724 & 0.3392 & 0.2766 \\ 0.2993 & 0.3145 & 0.3161 & 0.3014 & 0.2766 & 0.2289 \end{bmatrix}.$$

On page 492, lines 1-6 should be

$$\mathbf{A} = \begin{bmatrix} 0.4366 & 0.4533 & 0.4479 & 0.4151 & 0.3745 & 0.3011 \\ -0.5426 & -0.3546 & -0.0918 & 0.2650 & 0.4190 & 0.5706 \\ -0.5871 & 0.1231 & 0.5461 & 0.2779 & -0.0121 & -0.5143 \\ -0.3980 & 0.6808 & 0.0016 & -0.4305 & -0.1994 & 0.3912 \\ 0.1082 & -0.4337 & 0.7019 & -0.4366 & -0.1869 & 0.2864 \\ -0.0031 & 0.0448 & 0.0113 & -0.5516 & 0.7806 & -0.2902 \end{bmatrix}$$

On page 492, lines 13-15 should be

$$\begin{vmatrix} a_{1,1} & a_{1,4} & a_{1,6} \\ a_{2,1} & a_{2,4} & a_{2,6} \\ a_{3,1} & a_{3,4} & a_{3,6} \end{vmatrix} = \begin{vmatrix} 0.4366 & 0.4151 & 0.3011 \\ -0.5426 & 0.2650 & 0.5706 \\ -0.5871 & 0.2779 & -0.5143 \end{vmatrix} \approx -0.3822 \neq 0,$$

On page 499 line 8 from the bottom, “ $\leq$ ” and “ $\geq$ ” should be “ $<$ ” and “ $>$ ” respectively.

On page 500 line 10, “ $\leq$ ” and “ $\geq$ ” should be “ $<$ ” and “ $>$ ” respectively.

On page 502 line 4, “0.05506” and “0.05712” should be “0.05507” and “0.05766” respectively.