

理工学のための数値計算法 [第3版]
 (第3版第1刷・第2刷りの訂正)
 2023年1月12日

p. 173, 1行目

$$k_1 = hf(0, 0.3) = 1 \times \left\{ \frac{0.3}{4} + 0.6 \exp \frac{0}{4} \cos \left(0 + \frac{\pi}{6} \right) \right\} = 0.594615,$$

を

$$k_1 = hf(\textcolor{red}{x_0}, \textcolor{red}{y_0}) = 1 \times \left\{ \frac{0.3}{4} + 0.6 \exp \left(\frac{0}{4} \right) \cos \left(0 + \frac{\pi}{6} \right) \right\} = 0.594615,$$

に訂正します。

p. 173, 3行目

$$= 1 \times \left\{ \frac{0.597308}{4} + 0.6 \exp \frac{0.5}{4} \cos \left(0.5 + \frac{\pi}{6} \right) \right\} = 0.503070,$$

を

$$= 1 \times \left\{ \frac{\textcolor{red}{0.3 + 0.594615/2}}{4} + 0.6 \exp \left(\frac{0.5}{4} \right) \cos \left(0.5 + \frac{\pi}{6} \right) \right\} = 0.503070,$$

に訂正します。

p. 173, 5行目

$$= 1 \times \left\{ \frac{\textcolor{red}{0.503070}}{4} + 0.6 \exp \frac{0.5}{4} \cos \left(0.5 + \frac{\pi}{6} \right) \right\} = 0.491627,$$

を

$$= 1 \times \left\{ \frac{\textcolor{red}{0.3 + 0.503070/2}}{4} + 0.6 \exp \left(\frac{0.5}{4} \right) \cos \left(0.5 + \frac{\pi}{6} \right) \right\} = 0.491627,$$

に訂正します。

p. 173, 7行目

$$= 1 \times \left\{ \frac{0.791627}{4} + 0.6 \exp \frac{1}{4} \cos \left(1 + \frac{\pi}{6} \right) \right\} = 0.234255,$$

を

$$= 1 \times \left\{ \frac{\textcolor{red}{0.3 + 0.491627}}{4} + 0.6 \exp\left(\frac{1}{4}\right) \cos\left(1 + \frac{\pi}{6}\right) \right\} = 0.234255,$$

に訂正します。

p. 173, 9 行目

$$y_1 = y_0 + \frac{1}{6}(k_1 + 2k_2 + 2k_3 + k_4) = 0.767911.$$

を

$$y_1 = y_0 + \frac{1}{6}(k_1 + 2k_2 + 2k_3 + k_4) = \textcolor{red}{0.769711}.$$

に訂正します。

p. 177, 式 (6.55)

$$y_{i,j+1} = y_{i,j} + h f_i(y_{1,j}, y_{2,j}, \dots, y_{n,j}) \quad (i = 1, 2, \dots, n) \quad (6.55)$$

を

$$y_{i,j+1} = y_{i,j} + h f_i(\textcolor{red}{x_j}, y_{1,j}, y_{2,j}, \dots, y_{n,j}) \quad (i = 1, 2, \dots, n) \quad (6.55)$$

に訂正します。

p. 177, 式 (6.56) の 2 行目から 4 行目

$$k_{i,2} = h f_i \left(x_i + \frac{h}{2}, y_{1,j} + \frac{1}{2}k_{1,1}, y_{2,j} + \frac{1}{2}k_{2,1}, \dots, y_{n,j} + \frac{1}{2}k_{n,1} \right),$$

$$k_{i,3} = h f_i \left(x_i + \frac{h}{2}, y_{1,j} + \frac{1}{2}k_{1,2}, y_{2,j} + \frac{1}{2}k_{2,2}, \dots, y_{n,j} + \frac{1}{2}k_{n,2} \right),$$

$$k_{i,4} = h f_i (x_i + h, y_{1,j} + k_{1,3}, y_{2,j} + k_{2,3}, \dots, y_{n,j} + k_{n,3}),$$

を

$$k_{i,2} = h f_i \left(\textcolor{red}{x_j} + \frac{h}{2}, y_{1,j} + \frac{1}{2}k_{1,1}, y_{2,j} + \frac{1}{2}k_{2,1}, \dots, y_{n,j} + \frac{1}{2}k_{n,1} \right),$$

$$k_{i,3} = h f_i \left(\textcolor{red}{x_j} + \frac{h}{2}, y_{1,j} + \frac{1}{2}k_{1,2}, y_{2,j} + \frac{1}{2}k_{2,2}, \dots, y_{n,j} + \frac{1}{2}k_{n,2} \right),$$

$$k_{i,4} = h f_i (\textcolor{red}{x_j} + h, y_{1,j} + k_{1,3}, y_{2,j} + k_{2,3}, \dots, y_{n,j} + k_{n,3}),$$

に訂正します。

p. 223, 式 (7.74)

$$u_j = \frac{1}{N} \sum_{k=0}^{N-1} \hat{u}_k e^{i2\pi kj/N} \quad (j = 0, 1, \dots, N-1) \quad (7.74)$$

を

$$u_j = \sum_{k=0}^{N-1} \hat{u}_k e^{i2\pi kj/N} \quad (j = 0, 1, \dots, N-1) \quad (7.74)$$

に訂正します。