

List of Errata

Handbook of First Order Partial Differential Equations, Taylor & Francis, 2002 by A. D. Polyanin, V. F. Zaitsev, and A. Moussiaux

Page 48: Equation 8:

Was:
$$\frac{\partial w}{\partial x} + \left[\cdots - b^2 \lambda (\arctan x)^n n \right] \frac{\partial w}{\partial y} = 0.$$

Correct:
$$\frac{\partial w}{\partial x} + \left[\cdots - b^2 \lambda (\arctan x)^n \right] \frac{\partial w}{\partial y} = 0.$$

Page 50: Equation 8:

Was:
$$\frac{\partial w}{\partial x} + \left[\cdots - b^2 \lambda (\operatorname{arccot} x)^n n \right] \frac{\partial w}{\partial y} = 0.$$

Was:
$$\frac{\partial w}{\partial x} + \left[\dots - b^2 \lambda (\operatorname{arccot} x)^n n \right] \frac{\partial w}{\partial y} = 0.$$

Correct: $\frac{\partial w}{\partial x} + \left[\dots - b^2 \lambda (\operatorname{arccot} x)^n \right] \frac{\partial w}{\partial y} = 0.$

Page 117: Solution of equation 3:

Was:

$$w = \begin{cases} \dots & \text{if } a \neq 0, \\ -\frac{\beta}{\alpha} + e^{\alpha} b \Phi \left(x(cx + 2d) - 2by \right) & \text{if } a = 0. \end{cases}$$

Correct:

$$w = \begin{cases} \dots & \text{if } a \neq 0, \\ -\frac{\beta}{\alpha} + e^{\alpha x/b} \Phi(x(cx+2d) - 2by) & \text{if } a = 0. \end{cases}$$

Page 117: Solution of equation 4:

Was:

$$w = \begin{cases} \dots & \text{if } a \neq 0, \\ -\frac{\beta}{\alpha} + e^{\alpha} b \Phi \left((cy + d) e^{-cx/b} \right) & \text{if } a = 0. \end{cases}$$

Correct:

$$w = \begin{cases} \dots & \text{if } a \neq 0, \\ -\frac{\beta}{\alpha} + e^{\alpha x/b} \Phi((cy + d)e^{-cx/b}) & \text{if } a = 0. \end{cases}$$

Remove comma in front of dt in solution to equation 4.

Page 216: Subsection 8.6.4, solution to equation 4:

Was:

$$w = \Phi(u_1, u_2) \Big\{ \dots \Big\},\,$$

Correct:

$$w = \Phi(u_1, u_2) \exp \left\{ \dots \right\},\,$$

Page 276: Footnote:

Was: Equations of the general form are discussed below in Subsection 12.2.4.

Correct: Equations of the general form are discussed below in Subsection 12.1.4.

Page 284: Equation (49):

Was:

$$H(x, y, \eta) = \int_0^{\eta} \varphi(\bar{\eta}) \,\bar{\eta} + xZ\left(\frac{y - \eta}{x}\right). \tag{49}$$

Correct:

$$H(x, y, \eta) = \int_0^{\eta} \varphi(\bar{\eta}) \, d\bar{\eta} + xZ\left(\frac{y - \eta}{x}\right). \tag{49}$$

Page 410: Item 2°, line 4 (equation):

Was:

$$\frac{\partial \Xi}{\partial C_m} + \frac{\partial \Xi}{\partial C_n} \frac{df(C_1, \dots, C_{n-1})}{dC_m} = 0, \quad \dots$$

Correct:

$$\frac{\partial \Xi}{\partial C_m} + \frac{\partial \Xi}{\partial C_n} \frac{\partial f(C_1, \dots, C_{n-1})}{\partial C_m} = 0, \dots$$