Further Additions and Corrections

Interpolation

1/. Page 8: Generalisation to n-degree polynomials

$$\boxed{L_i(x) = \frac{(x-x_0)\cdots(x-x_{i-1})(x-x_{i+1})\cdots(x-x_n)}{(x_i-x_0)\cdots(x_i-x_{i-1})(x_i-x_{i+1})\cdots(x_i-x_n)}}$$

At $\boxed{x = x_i}$, $\boxed{L_i(x_i) = 1}$. For the case of

$\boxed{i=0}$ $\boxed{L_0(x) = \frac{(x-x_1)(x-x_2)\cdots(x-x_n)}{(x_0-x_1)(x_0-x_2)\cdots(x_0-x_n)}}$ where $x = x_0$ $L_0(x_0) = 1$.

2/. Page 16: $\boxed{f[x_1, x_2, x_3] = \frac{f[x_2, x_3] - f[x_1, x_2]}{x_3 - x_1}}$ ← (CORRECTION)

3/. Page 21: $P_n(x) = f_0 + (-1)^1 \nu \nabla f_0 + (-1)^2 \nu(\nu-1)\frac{\nabla^2 f_0}{2!}$

$+ (-1)^3 \nu(\nu-1)(\nu-2)\frac{\nabla^3 f_0}{3!} + \cdots + (-1)^n \nu(\nu-1)\cdots(\nu-n+1)\frac{\nabla^n f_0}{n!}$ ← (CORRECTED)

In the last term the correction is $(-1)^n$ | Note the dots $(\cdots)$

Numerical Integration and Differentiation

1/. Page 14: At the bottom of the page all terms with h^2 should be read as

$\boxed{\frac{h^2}{12} f^{(4)}(t)}$ → The fourth derivative of $f(t)$, whose argument is t.