

1 Example FoxH32-21.wls

File content

Fox H-function

$$H_{2,3}^{2,1} \left(. \left| \begin{array}{c} (1, \frac{1}{\alpha}), (\text{Ceil}(\beta), \beta) \\ (\frac{1}{2}, \frac{\alpha}{2}), (1, 1), (1, \frac{\alpha}{2}) \end{array} \right. \right)$$

$$H_{2,3}^{2,1} \left(. \left| \frac{(1, \frac{1}{\alpha})}{(\frac{1}{2}, \frac{\alpha}{2}), (1, 1)} \right| \frac{(\text{Ceil}(\beta), \beta)}{(1, \frac{\alpha}{2})} \right)$$

Summary

$$a^* = \frac{1}{\alpha} - \beta + 1$$

$$\Delta = \alpha - \frac{1}{\alpha} - \beta + 1$$

$$\delta = 2^{-\alpha} \left(\frac{1}{\alpha} \right)^{-1/\alpha} \left(2^{\alpha/2} \alpha^{\alpha/2} + \alpha^\alpha \right) \beta^{-\beta}$$

$$\mu = 1 - \text{Ceil}(\beta)$$

$$a_1^* = \frac{1}{2}(\alpha - 2\beta + 2)$$

$$a_2^* = \frac{1}{\alpha} - \frac{\alpha}{2}$$

$$\xi = \frac{3}{2} - \text{Ceil}(\beta)$$

$$c^* = \frac{1}{2}$$

Poles 1. First ten poles from upper front list

$$a_{i,k} = \begin{pmatrix} 0 \\ \alpha \\ 2\alpha \\ 3\alpha \\ 4\alpha \\ 5\alpha \\ 6\alpha \\ 7\alpha \\ 8\alpha \\ 9\alpha \\ 10\alpha \end{pmatrix}$$

2. First ten poles from lower front list

$$b_{j,\ell} = \begin{pmatrix} -\frac{1}{\alpha} & -1 \\ -\frac{3}{\alpha} & -2 \\ -\frac{5}{\alpha} & -3 \\ -\frac{7}{\alpha} & -4 \\ -\frac{9}{\alpha} & -5 \\ -\frac{11}{\alpha} & -6 \\ -\frac{13}{\alpha} & -7 \\ -\frac{15}{\alpha} & -8 \\ -\frac{17}{\alpha} & -9 \\ -\frac{19}{\alpha} & -10 \\ -\frac{21}{\alpha} & -11 \end{pmatrix}$$