

# 1 Example FoxH32-21.wls

File content

Fox H-function

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

$$H_{2,3}^{2,1}\left(\cdot\left|\frac{\left(1,\frac{1}{\alpha}\right)}{\left(\frac{1}{2},\frac{\alpha}{2}\right),\left(1,1\right)}\right|\frac{\left(\lceil\beta\rceil,\beta\right)}{\left(1,\frac{\alpha}{2}\right)}\right)$$

Summary

$$\begin{aligned}a^* &= \frac{1}{\alpha} - \beta + 1 \\ \Delta &= \alpha - \frac{1}{\alpha} - \beta + 1 \\ \delta &= 2^{-\alpha} \left(\frac{1}{\alpha}\right)^{-1/\alpha} \left(2^{\alpha/2} \alpha^{\alpha/2} + \alpha^\alpha\right) \beta^{-\beta} \\ \mu &= 1 - \lceil\beta\rceil \\ a_1^* &= \frac{1}{2}(\alpha - 2\beta + 2) \\ a_2^* &= \frac{1}{\alpha} - \frac{\alpha}{2} \\ \xi &= \frac{3}{2} - \lceil\beta\rceil \\ c^* &= \frac{1}{2}\end{aligned}$$

Poles    1. First ten poles from upper front list

$$a_{i,k} = \left(\begin{array}{c} 0 \\ \alpha \\ 2\alpha \\ 3\alpha \\ 4\alpha \\ 5\alpha \\ 6\alpha \\ 7\alpha \\ 8\alpha \\ 9\alpha \\ 10\alpha \end{array}\right)$$

2. First ten poles from lower front list

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