1 Example `FoxH-Lommel_2_9_22.wls`

File content

Fox H-function

$$H_{1,3}^{3,1}\left(\cdot\left|\begin{array}{l}\left(\frac{\mu+1}{2},1\right)\\ \left(\frac{\mu+1}{2},1\right),\left(\frac{\eta}{2},1\right),\left(-\frac{\eta}{2},1\right)\end{array}\right.\right)$$

$$H_{1,3}^{3,1}\left(\cdot\left|\frac{\left(\frac{\mu+1}{2},1\right)}{\left(\frac{\mu+1}{2},1\right),\left(\frac{\eta}{2},1\right),\left(-\frac{\eta}{2},1\right)}\right.\right)$$

Summary

$$\begin{aligned}a^* &= 4\\ \Delta &= 2\\ \delta &= \text{Indeterminate}\\ \mu &= -1\\ a_1^* &= 3\\ a_2^* &= 1\\ \xi &= \mu+1\\ c^* &= 2\end{aligned}$$

Poles 1. First eight poles from upper front list

$$a_{i,k} = \begin{pmatrix} \frac{1-\mu}{2} \\ \frac{3-\mu}{2} \\ \frac{5-\mu}{2} \\ \frac{7-\mu}{2} \\ \frac{9-\mu}{2} \\ \frac{11-\mu}{2} \\ \frac{13-\mu}{2} \\ \frac{15-\mu}{2} \end{pmatrix}^T$$

2. First eight poles from lower front list

$$b_{j,\ell} = \begin{pmatrix} \frac{1}{2}(-\mu-1) & -\frac{\eta}{2} & \frac{\eta}{2} \\ \frac{1}{2}(-\mu-3) & -\frac{\eta}{2}-1 & \frac{\eta-2}{2} \\ \frac{1}{2}(-\mu-5) & -\frac{\eta}{2}-2 & \frac{\eta-4}{2} \\ \frac{1}{2}(-\mu-7) & -\frac{\eta}{2}-3 & \frac{\eta-6}{2} \\ \frac{1}{2}(-\mu-9) & -\frac{\eta}{2}-4 & \frac{\eta-8}{2} \\ \frac{1}{2}(-\mu-11) & -\frac{\eta}{2}-5 & \frac{\eta}{2}-5 \\ \frac{1}{2}(-\mu-13) & -\frac{\eta}{2}-6 & \frac{\eta}{2}-6 \\ \frac{1}{2}(-\mu-15) & -\frac{\eta}{2}-7 & \frac{\eta}{2}-7 \end{pmatrix}^T$$