

1 Example FoxH32-21.wls

File content

```
{
  (* Upper List *) {
    (* Upper Front List *) {{1,  $\alpha^{(-1)}$ }},
    (* Upper Rear List *) {{Ceiling[ $\beta$ ],  $\beta$ }}
  },
  (* Lower List *) {
    (* Lower Front List *) {{1/2,  $\alpha/2$ }, {1, 1}},
    (* Lower Rear List *) {{1,  $\alpha/2$ }}
  }
}
```

Fox H-function

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

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

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 eight poles from upper front list

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

2. First eight poles from lower front list

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