

1 Example FoxH-Lommel_2_9_22.wls

File content

```
(* (2.9.22) of Kilbas and Saigo 04 *)
{
  (* Upper List *) {
    (* Upper Front List *) {{(1+μ)/2,1}},
    (* Upper Rear List *) {}
  },
  (* Lower List *) {
    (* Lower Front List *) {{(1+μ)/2,1},{η/2,1},{-η/2,1}},
    (* Lower Rear List *) {}
  }
}
```

Fox H-function

$$H_{1,3}^{3,1} \left(\begin{matrix} \left(\frac{\mu+1}{2}, 1 \right) \\ \left(\frac{\mu+1}{2}, 1 \right), \left(\frac{\eta}{2}, 1 \right), \left(-\frac{\eta}{2}, 1 \right) \end{matrix} \right)$$

$$H_{1,3}^{3,1} \left(\begin{matrix} \left(\frac{\mu+1}{2}, 1 \right) \\ \left(\frac{\mu+1}{2}, 1 \right), \left(\frac{\eta}{2}, 1 \right), \left(-\frac{\eta}{2}, 1 \right) \end{matrix} \right)$$

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 ten poles from upper front list

$$a_{i,k} = \left(\begin{array}{cccccccccccc} \frac{1-\mu}{2} & \frac{3-\mu}{2} & \frac{5-\mu}{2} & \frac{7-\mu}{2} & \frac{9-\mu}{2} & \frac{11-\mu}{2} & \frac{13-\mu}{2} & \frac{15-\mu}{2} & \frac{17-\mu}{2} & \frac{19-\mu}{2} & \frac{21-\mu}{2} \end{array} \right)$$

2. First ten poles from lower front list

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