

# 1 Example FoxH-Bessel-J\_2\_9\_18.wls

## File content

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

## Fox H-function

$$H_{0,2}^{1,0} \left( \cdot \left| \begin{array}{c} \\ \left( \frac{a+\eta}{2}, 1 \right), (a-\eta, 1) \end{array} \right. \right)$$

$$H_{0,2}^{1,0} \left( \cdot \left| \begin{array}{c|c} & \\ \hline \left( \frac{a+\eta}{2}, 1 \right) & (a-\eta, 1) \end{array} \right. \right)$$

## Summary

$$\begin{aligned} a^* &= 0 \\ \Delta &= 2 \\ \delta &= \text{ComplexInfinity} \\ \mu &= \frac{1}{2}(3a - \eta - 2) \\ a_1^* &= 1 \\ a_2^* &= -1 \\ \xi &= \frac{1}{2}(3\eta - a) \\ c^* &= 0 \end{aligned}$$

**Poles 1. First ten poles from upper front list**

$$a_{i,k} = \{\{\}, \{\}, \{\}, \{\}, \{\}, \{\}, \{\}, \{\}, \{\}, \{\}, \{\}\}$$

**2. First ten poles from lower front list**

$$b_{j,\ell} = \begin{pmatrix} \frac{1}{2}(-a - \eta) \\ \frac{1}{2}(-a - \eta - 2) \\ \frac{1}{2}(-a - \eta - 4) \\ \frac{1}{2}(-a - \eta - 6) \\ \frac{1}{2}(-a - \eta - 8) \\ -\frac{a}{2} - \frac{\eta}{2} - 5 \\ -\frac{a}{2} - \frac{\eta}{2} - 6 \\ -\frac{a}{2} - \frac{\eta}{2} - 7 \\ -\frac{a}{2} - \frac{\eta}{2} - 8 \\ -\frac{a}{2} - \frac{\eta}{2} - 9 \\ \frac{1}{2}(-a - \eta - 20) \end{pmatrix}$$