

## Single HEMG

$$f_{HEMGp1} := \left( \frac{1}{4 \cdot w1} \right) \cdot \exp \left( \left( \frac{x - w3}{w1} \right) + \frac{w0^2}{2 \cdot w1^2} \right) \cdot ERFC \cdot \left( \left( \frac{x - w3}{w0} \right) + \left( \frac{w0}{w1} \right) \right)$$
$$f_{HEMGp1} := \frac{e^{\frac{x - w3}{w1} + \frac{w0^2}{2 w1^2}} ERFC \left( \frac{x - w3}{w0} + \frac{w0}{w1} \right)}{4 w1} \quad (1.1)$$

$$df_{HEMGp1} := \text{diff}(f_{HEMGp1}, x)$$

$$df_{HEMGp1} := \frac{e^{\frac{x - w3}{w1} + \frac{w0^2}{2 w1^2}} ERFC \left( \frac{x - w3}{w0} + \frac{w0}{w1} \right)}{4 w1^2} + \frac{e^{\frac{x - w3}{w1} + \frac{w0^2}{2 w1^2}} ERFC}{4 w1 w0} \quad (1.2)$$

$$mf_{HEMGp1} := \text{solve}(df_{HEMGp1} = 0, x)$$

$$mf_{HEMGp1} := - \frac{w0^2 + w1^2 - w3 w1}{w1} \quad (1.3)$$

## Additional HEMG

$$f_{HEMGp2} := \left( \frac{1}{4 \cdot w2} \right) \cdot \exp \left( \left( \frac{w3 - x}{w2} \right) + \frac{w0^2}{2 \cdot w2^2} \right) \cdot ERFC \cdot \left( \left( \frac{w3 - x}{w0} \right) + \left( \frac{w0}{w2} \right) \right)$$
$$f_{HEMGp2} := \frac{e^{\frac{w3 - x}{w2} + \frac{w0^2}{2 w2^2}} ERFC \left( \frac{w3 - x}{w0} + \frac{w0}{w2} \right)}{4 w2} \quad (2.1)$$

## Combined HEMG

$$fHEMG := w4 \cdot (fHEMGp1 + fHEMGp2) + w5$$

$$fHEMG := w4 \left( \frac{e^{\frac{x-w3}{w1} + \frac{w0^2}{2w1^2}} \operatorname{ERFC}\left(\frac{x-w3}{w0} + \frac{w0}{w1}\right)}{4w1} + \frac{e^{\frac{w3-x}{w2} + \frac{w0^2}{2w2^2}} \operatorname{ERFC}\left(\frac{w3-x}{w0} + \frac{w0}{w2}\right)}{4w2} \right) + w5 \quad (3.1)$$

$$dfHEMGp := \operatorname{diff}(fHEMG, x)$$

$$dfHEMGp := w4 \left( \frac{e^{\frac{x-w3}{w1} + \frac{w0^2}{2w1^2}} \operatorname{ERFC}\left(\frac{x-w3}{w0} + \frac{w0}{w1}\right)}{4w1^2} + \frac{e^{\frac{x-w3}{w1} + \frac{w0^2}{2w1^2}} \operatorname{ERFC}}{4w1w0} - \frac{e^{\frac{w3-x}{w2} + \frac{w0^2}{2w2^2}} \operatorname{ERFC}\left(\frac{w3-x}{w0} + \frac{w0}{w2}\right)}{4w2^2} - \frac{e^{\frac{w3-x}{w2} + \frac{w0^2}{2w2^2}} \operatorname{ERFC}}{4w2w0} \right) \quad (3.2)$$

$$mfHEMGp := \operatorname{solve}(dfHEMGp = 0, x)$$

$$mfHEMGp := \frac{1}{2w2} \left( -2 \operatorname{RootOf}\left( 2e^{-Z} \_Z w1^3 w2^2 + 2e^{\frac{2\_Z w1 w2^2 - w0^2 w1 - w0^2 w2}{2w2 w1^2}} \_Z w1 w2^4 + e^{-Z} w0^2 w1^3 + 2e^{-Z} w1^3 w2^2 - e^{\frac{2\_Z w1 w2^2 - w0^2 w1 - w0^2 w2}{2w2 w1^2}} w0^2 w1 w2^2 - 2e^{\frac{2\_Z w1 w2^2 - w0^2 w1 - w0^2 w2}{2w2 w1^2}} w0^2 w2^3 - 2e^{\frac{2\_Z w1 w2^2 - w0^2 w1 - w0^2 w2}{2w2 w1^2}} w1^2 w2^3 \right) w2^2 + w0^2 + 2w3 w2 \right) \quad (3.3)$$