

# **A Hyp functions**

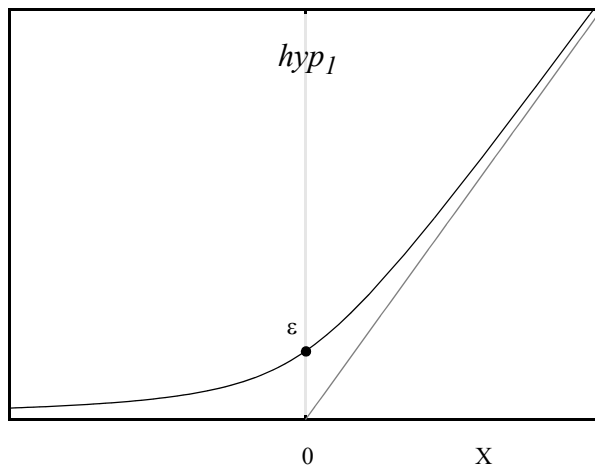


Figure 86:  $hyp_1(x;\varepsilon) = \frac{1}{2} \cdot (x + \sqrt{x^2 + 4 \cdot \varepsilon^2})$

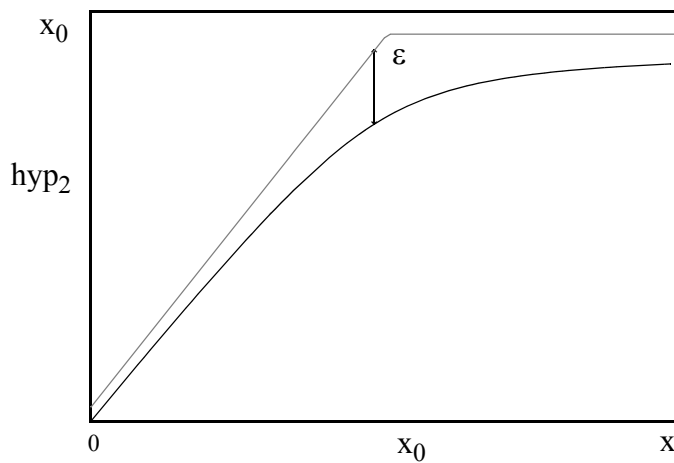


Figure 87:  $hyp_2(x;x_0;\varepsilon) = x - hyp_1(x - x_0;\varepsilon)$

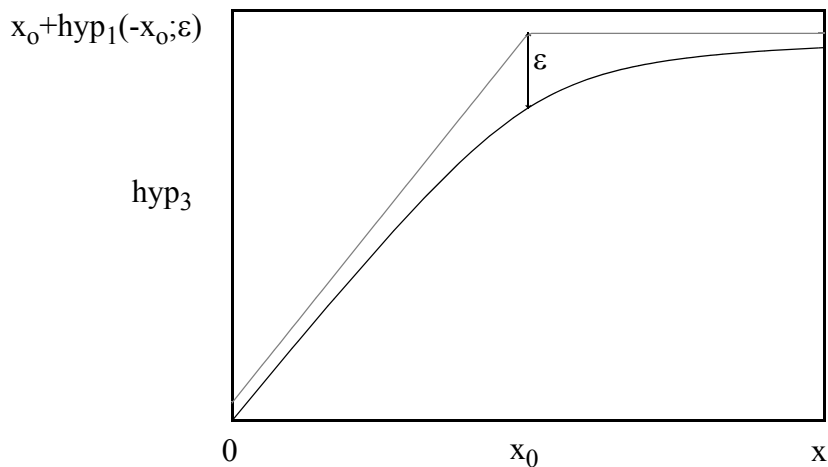


Figure 88:  $\text{hyp}_3(x; x_0; \epsilon) = \text{hyp}_2(x; x_0; \epsilon) - \text{hyp}_2(0; x_0; \epsilon)$  for  $\epsilon = \epsilon(x_0)$

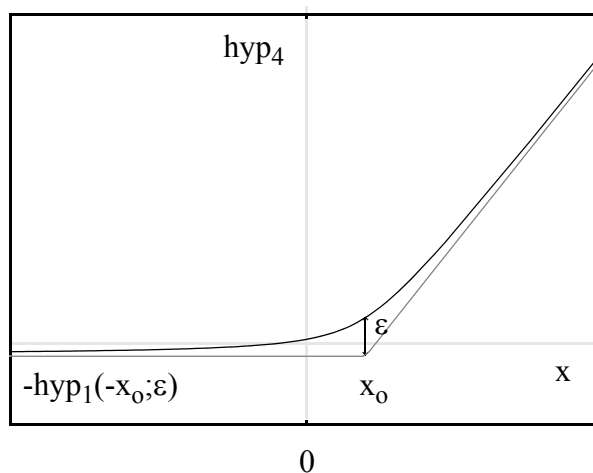


Figure 89:  $\text{hyp}_4(x; x_0; \epsilon) = \text{hyp}_1(x - x_0; \epsilon) - \text{hyp}_1(-x_0; \epsilon)$

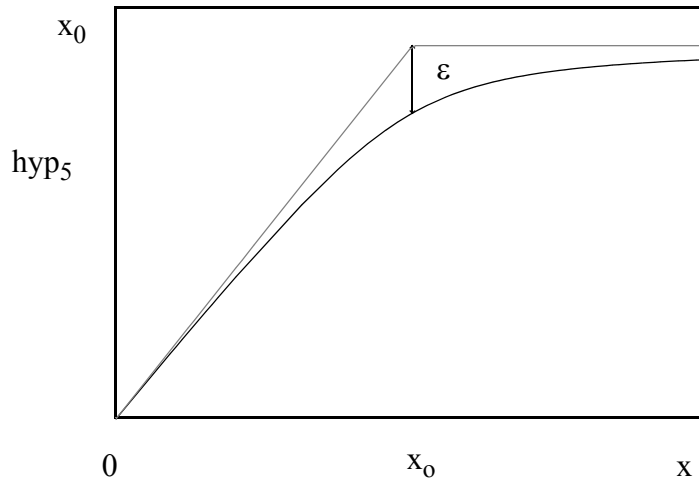


Figure 90:  $\text{hyp}_5(x; x_0; \varepsilon) = x_0 - \text{hyp}_1\left(x_0 - x - \frac{\varepsilon^2}{x_0}, \varepsilon\right)$  for  $\varepsilon = \varepsilon(x_0)$

## MOS model 2001 Auxiliary functions

**The hyp-function:**

$$\text{hyp}[x; \varepsilon] = \frac{1}{2} \cdot (x + \sqrt{x^2 + 4 \cdot \varepsilon^2}) \quad (18.133)$$

**The hypm-function:**

$$\text{hypm}[x, y; m] = \frac{x \cdot y}{(x^{2 \cdot m} + y^{2 \cdot m})^{1/(2 \cdot m)}} \quad (18.134)$$

