Achromatisches Sehen mit relativer Leuchtdichte
Mathematikgleichungen mit Hyperbelfunktionen

$$F_{ab}(x_r, a) = b \tanh(x_r/a) = b \frac{e^{x_r/a} - e^{-x_r/a}}{e^{x_r/a} + e^{-x_r/a}} \qquad \begin{array}{l} x_r = \log(L_r) \\ L_r = L/L_u \\ x_r <= 0 \quad [1] \end{array}$$

$$\frac{dF_{ab}(x_r, a)}{dx_r} = \frac{4b}{a[e^{x_r/a} + e^{-x_r/a}]^2} \qquad \begin{array}{l} x_r = \ln L_r / \ln(10) \\ dx_r/dL_r = 1/(\ln(10) L_r) \\ m = 1/(\ln(10) a) \quad [5] \end{array}$$

$$\frac{L/dL}{(L/dL)_u} = \frac{4}{[e^{x_r/a} + e^{-x_r/a}]^2} ; \frac{dL}{dL_u} = \frac{[e^{x_r/a} + e^{-x_r/a}]^2 L}{4 L_u} \quad [8]$$

$$\frac{L/dL}{(L/dL)_u} = 1 \text{ für } \begin{cases} L = L_u \\ x_r = 0 \end{cases} \qquad \frac{dL}{dL_u} = 1 \text{ für } \begin{cases} L = L_u \\ x_r = 0 \end{cases} \quad [9]$$