

# Achromatisches Sehen mit relativer Leuchtdichte

## Mathematische Gleichungen mit Potenzfunktionen

$$F_{cb}(L_T, n) = b \tanh(x_r/c) = b \frac{L_T^n - L_T^{-n}}{L_T^n + L_T^{-n}} \quad \begin{array}{l} x_r = \log(L_T) \\ L_T = L/L_u \\ x_r \geq 0 \end{array} \quad [1]$$

$$\frac{dF_{cb}(L_T, n)}{dL_T} = \frac{4bn}{L_T[L_T^n + L_T^{-n}]^2} \quad \begin{array}{l} x_r = \ln L_T / \ln(10) \\ dx_r/dL_T = 1/(\ln(10)L_T) \\ n = 1/(\ln(10)c) \end{array} \quad [5]$$

$$\frac{dF_{cb}(L_T, n)}{dL} = \frac{4bnL_u}{L_T[L_T^n + L_T^{-n}]^2} \quad \begin{array}{l} dL_T = dL/L_u \\ dF_{cb}(L_T, n) = 1 \end{array} \quad [6]$$

$$\frac{L}{dL} = \frac{4bnL_u L}{L_T[L_T^n + L_T^{-n}]^2} \quad dL = \frac{L_T[L_T^n + L_T^{-n}]^2}{4bnL_u} \quad [7]$$