Achromatisches Sehen mit relativer Leuchtdichte
Gleichungen mit Hyperbel- und Potenzfunktionen

$$F_{ab}(x_r,a)=b\tanh(x_r/a)=b\frac{e^{x_r/a}-e^{-x_r/a}}{e^{x_r/a}+e^{-x_r/a}}$$

$x_r=\log(L_r)$
$L_r=L/L_u$
$x_r<=0$ [1a]

$$\frac{dF_{ab}(x_r,a)}{dx_r}=\frac{4b}{a[e^{x_r/a}+e^{-x_r/a}]^2}$$

$x_r=\ln L_r/\ln(10)$
$dx_r/dL=1/(\ln(10)L)$
$m=1/(\ln(10)a)$ [5a]

$$F_{ab}(L_r,m)=b\tanh(x_r/a)=b\frac{L_r^m-L_r^{-m}}{L_r^m+L_r^{-m}}$$

$x_r=\log(L_r)$
$L_r=L/L_u$
$L_r<=1$ [1b]

$$\frac{dF_{ab}(L_r,m)}{dL_r}=\frac{4bm}{L_r[L_r^m+L_r^{-m}]^2}$$

$x_r=\ln L_r/\ln(10)$
$dx_r/dL=1/(\ln(10)L)$
$m=1/(\ln(10)a)$ [5b]