

„achromatic signal” discrimination  
as function of relative light density  
 $h = \ln H = k(x - u)$   $\ln =$  natural log.

$$Q' = \frac{d}{dH} [\ln \{ 1 + 1 / (1 + \sqrt{2}H) \}] / \ln \sqrt{2}$$
$$= -\sqrt{2} / [\ln \sqrt{2} (1 + \sqrt{2}H) (2 + \sqrt{2}H)]$$

**function values:**

$$Q' [k(x - u) \rightarrow +\infty] = 0$$

$$Q' [k(x - u) = 0] = -0,5$$

$$Q' [k(x - u) \rightarrow -\infty] = 0$$