

$\log [(\Delta Y/Y) / (\Delta Y/Y)_u]$

HAULAB-Y sensitivity  
normalized to  $(\Delta Y/Y)_u$

$$S_r/S_{ru} = (\Delta Y/Y) / (\Delta Y/Y)_u$$

$$100 L^* = s(Y/Y_n)^n - d \quad (Y_n=100, Y_u=30, s=163,9, n=0,31, d=63,9) \quad [1a]$$

$$L^* = r(Y/Y_u)^n - d \quad (r = s(Y_u/Y_n)^n = 96,32, L^*_u = r - d = 32,4) \quad [1b]$$

$$dY/Y = [(Y_n / (n s))] (Y/Y_n)^{1-n} / Y \quad [3c]$$

Y\_curve, ij=36, Yuij=30, L\*uij=50

k=99, Ykij=100, L\*kij=99,9,  $(\Delta Y/Y) / (\Delta Y/Y)_u = 0,69$

k=30, Ykij=31, L\*kij=50,0,  $(\Delta Y/Y) / (\Delta Y/Y)_u = 0,99$

k=1, Ykij=2, L\*kij=-15,1,  $(\Delta Y/Y) / (\Delta Y/Y)_u = 2,33$

k=0, Ykij=1, L\*kij=-20,4,  $(\Delta Y/Y) / (\Delta Y/Y)_u = 2,89$

$\phi = 10'$   
 $L_{aw} = 300 \text{ cd/m}^2$

application  
range

$m_{nu} = -n = -0,310$

$m_u = -0,300$

$Y_u = 30$   
 $0,004$   
 $-0,158$

$Y_u = 18$   
 $100$

