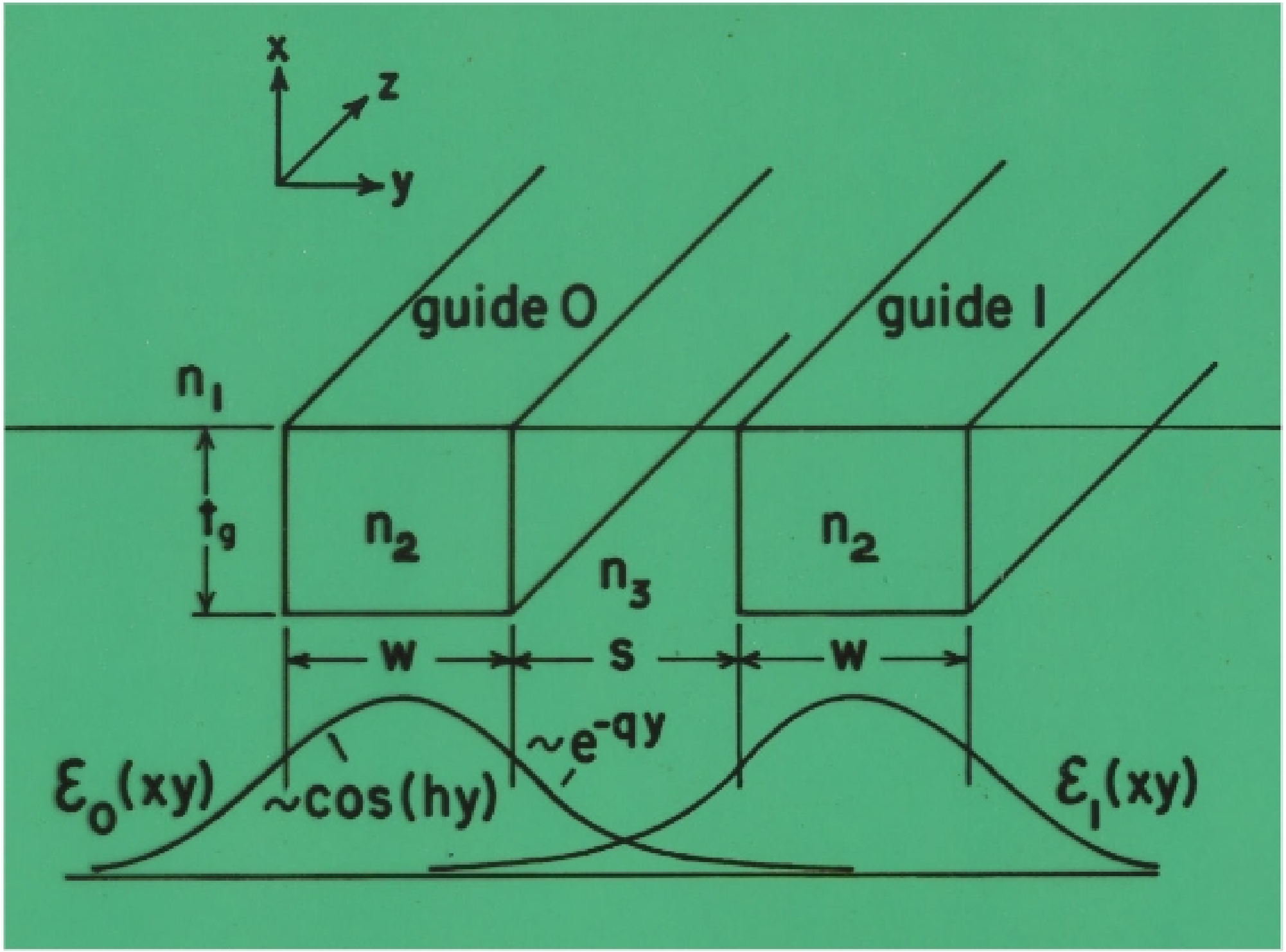
x
z
y
guide 0
guide 1
$n_1$
$t_g$
$n_2$
$n_3$
$n_2$
w
s
w
$\sim e^{-qy}$
$\mathcal{E}_0(xy)$
$\sim \cos(hy)$
$\mathcal{E}_1(xy)$

$$\bar{E}(x,y,z) = A(z)\,\bar{\mathcal{E}}(x,y) \qquad (1)$$

$$P_0(z) = |A_0(z)|^2 = A_0(z)A_0^*(z) \qquad (2a)$$

$$P_1(z) = |A_1(z)|^2 = A_1(z)A_1^*(z) \qquad (2b)$$

# Coupled Mode Equations

$$\frac{dA_0(z)}{dz} = -i\beta_0 A_0(z) + \kappa_{01} A_1(z) \qquad (3)$$

$$\frac{dA_1(z)}{dz} = -i\beta_1 A_1(z) + \kappa_{10} A_0(z) \qquad (4)$$

J.R. Pierce J.A.P. 25, 179 (1954)