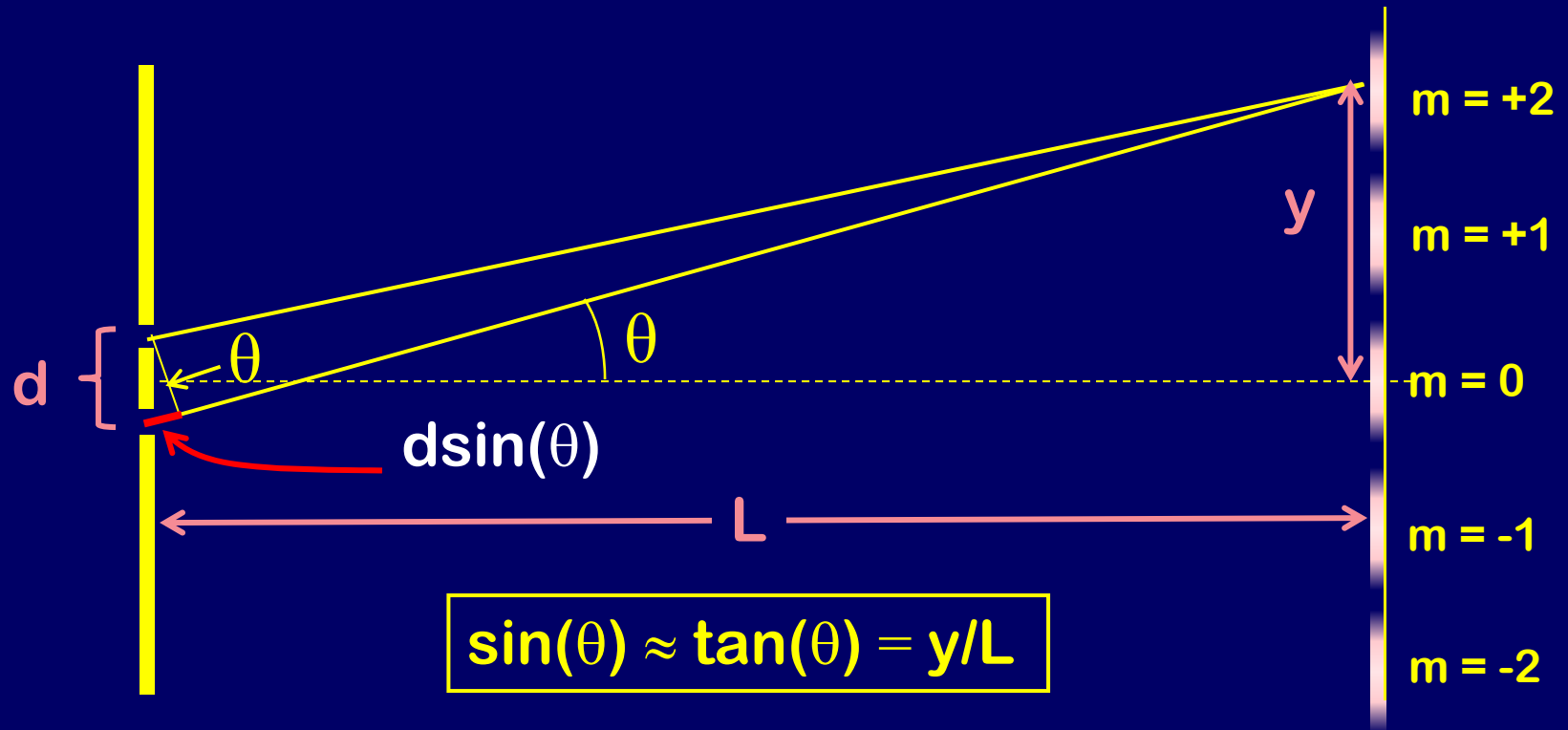


# Young's double slit: Quantitative

Assume screen is very far away ( $L \gg d$ ), angles  $\theta$  are small:



**Constructive:**  $d \sin(\theta) = m\lambda$

$$y \approx m\lambda L/d$$

**Destructive:**  $d \sin(\theta) = (m+1/2)\lambda$

$$y \approx (m+1/2)\lambda L/d$$

$$m = 0, \pm 1, \pm 2$$