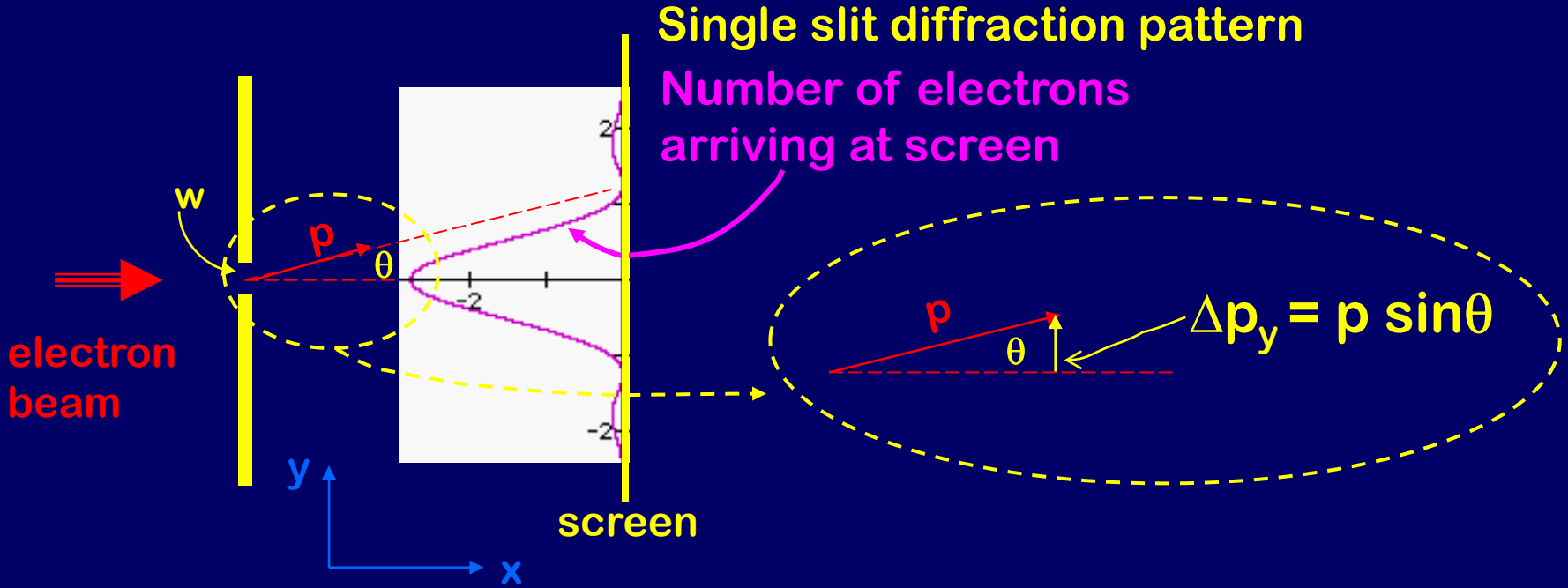


**Example**

# Electron diffraction

Electron beam traveling through slit will diffract



Recall single-slit diffraction 1<sup>st</sup> minimum:

$$\sin \theta = \lambda / w \quad w = \lambda / \sin \theta = \Delta y$$

$$\Delta p_y \Delta y = p \sin \theta \frac{\lambda}{\sin \theta} = \lambda p = h$$

← Using de Broglie  $\lambda$