INTERFERENCIA

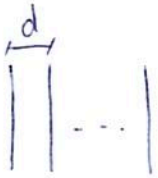
$a \ll \lambda$

ondas cilíndricas

$d > \lambda$

$$I(\theta) = I_0 \cos^2\beta$$

$$\beta = \frac{\delta}{2} = \frac{\pi d}{\lambda} \operatorname{sen}\theta$$



N ranuras

$$I(\theta) = I_0 \frac{\operatorname{sen}^2(N\beta)}{\operatorname{sen}^2\beta}$$

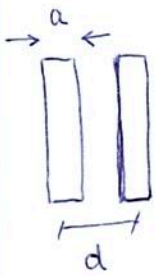
$$\beta = \frac{\delta}{2} = \frac{\pi d}{\lambda} \operatorname{sen}\theta$$

DIFRACCIÓN

$a \approx \lambda$

$$I(\theta) = I_0 \frac{\operatorname{sen}^2\alpha}{\alpha^2}$$

$$\alpha = \frac{\pi a}{\lambda} \operatorname{sen}\theta$$

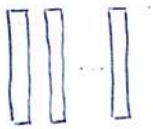


$a \sim \lambda$, $d > \lambda$

$$I(\theta) = I_0 \cos^2\beta \frac{\operatorname{sen}^2\alpha}{\alpha^2}$$

$$\beta = \frac{\pi d}{\lambda} \operatorname{sen}\theta$$

$$\alpha = \frac{\pi a}{\lambda} \operatorname{sen}\theta$$



N rendijas de ancho a

$$I(\theta) = I_0 \frac{\operatorname{sen}^2(N\beta)}{\operatorname{sen}^2\beta} \frac{\operatorname{sen}^2\alpha}{\alpha^2}$$

$$\beta = \frac{\pi d}{\lambda} \operatorname{sen}\theta$$

$$\alpha = \frac{\pi a}{\lambda} \operatorname{sen}\theta$$