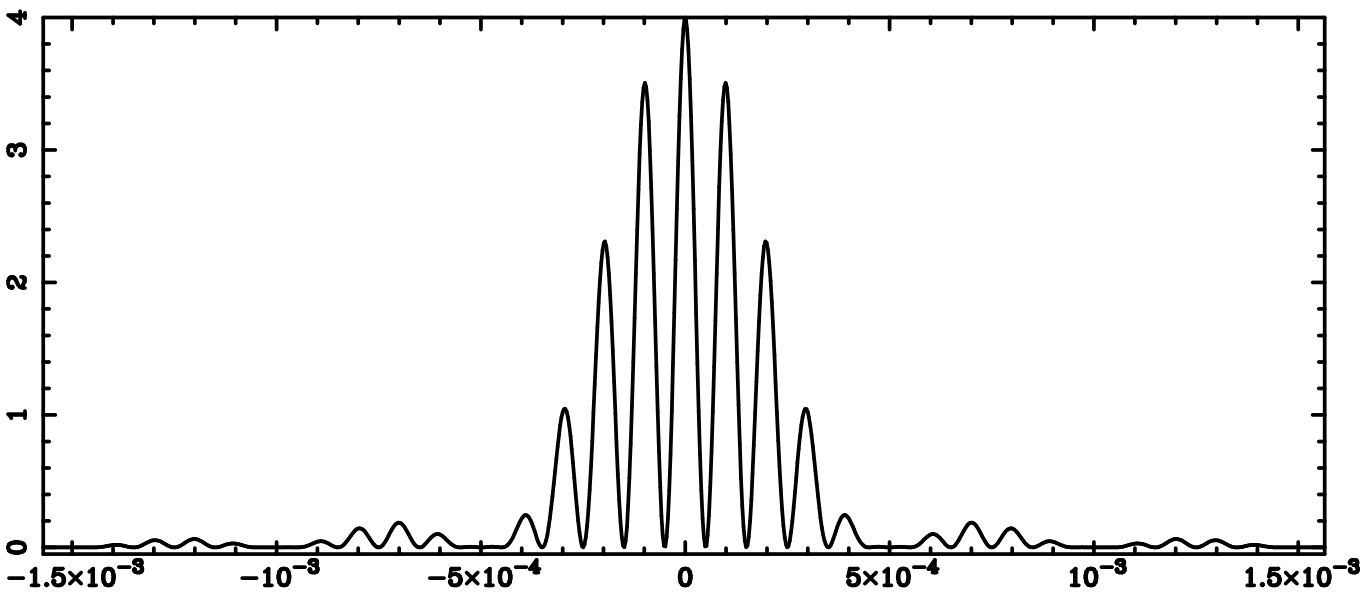
Redes de difracción

Campo de interferencia producido por N rendijas de ancho a y espaciamento b:

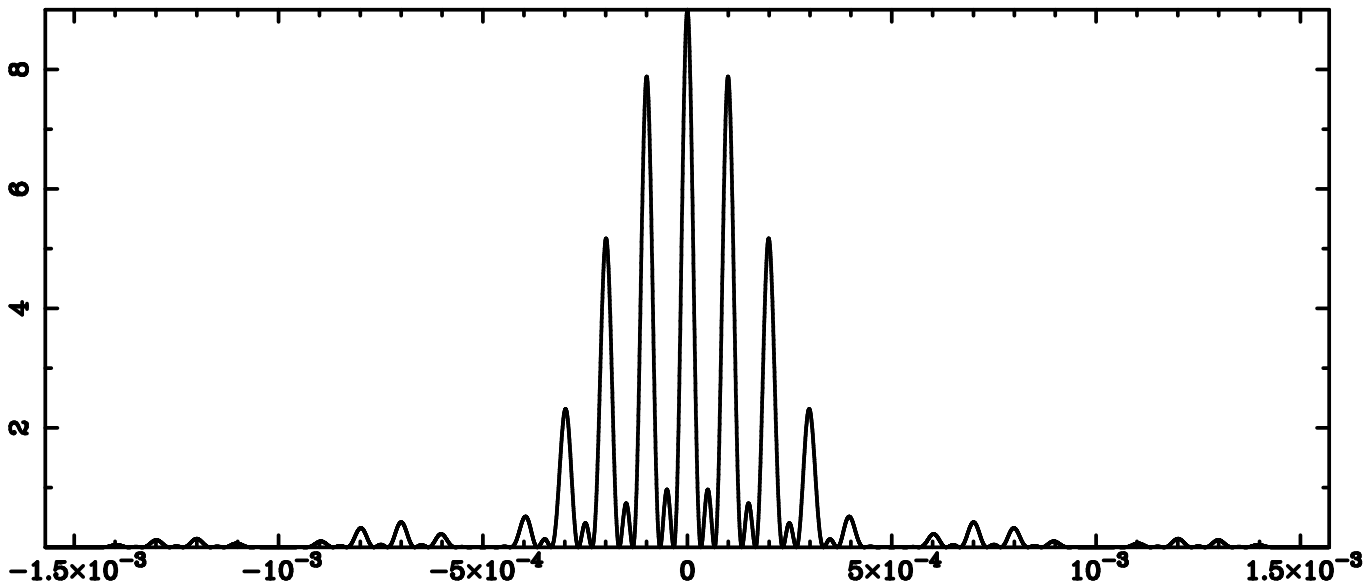
$$I = I_\circ \left[\frac{\sin(\frac{\pi}{\lambda} a \sin(\theta))}{\frac{\pi}{\lambda} a \sin(\theta)} \frac{\sin(\frac{\pi}{\lambda} N b \sin(\theta))}{\sin(\frac{\pi}{\lambda} b \sin(\theta))} \right]^2 \tag{1}$$

Ejemplos para $\lambda = 5000\text{Å}$, $a = 1\text{mm}$, $b = 5\text{mm}$:

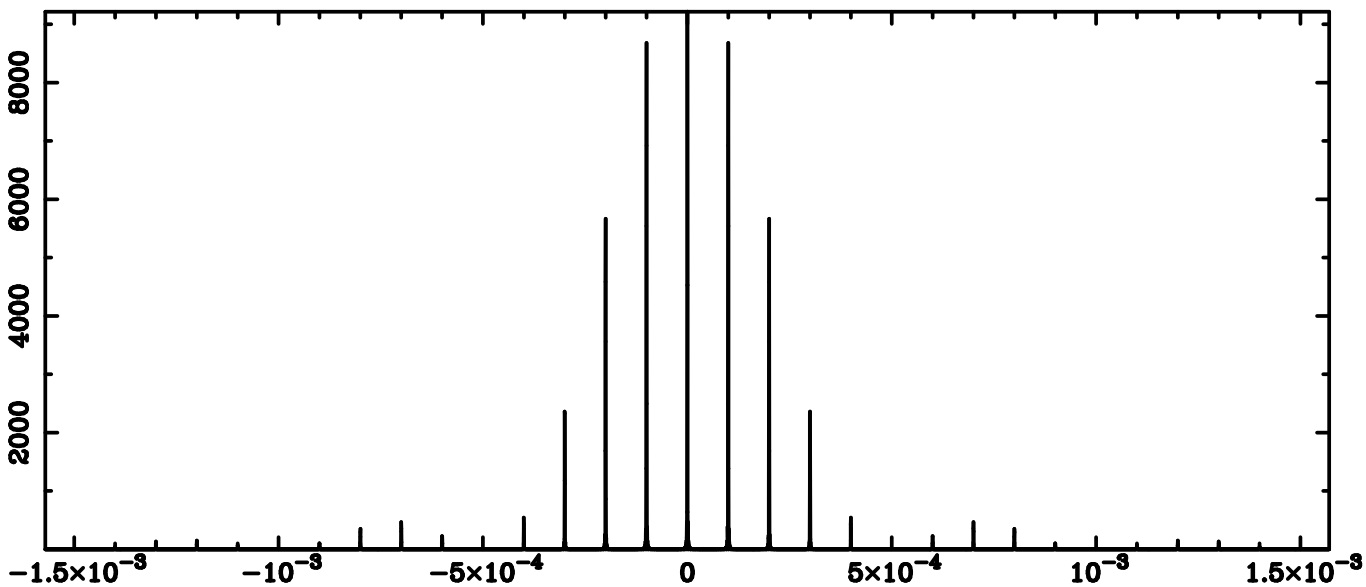
N = 2



N = 3


8
6
4
2
−1.5×10^−3
−10^−3
−5×10^−4
0
5×10^−4
10^−3
1.5×10^−3

N = 100


8000
6000
4000
2000
−1.5×10^−3
−10^−3
−5×10^−4
0
5×10^−4
10^−3
1.5×10^−3