

Laboratory 1: Interference

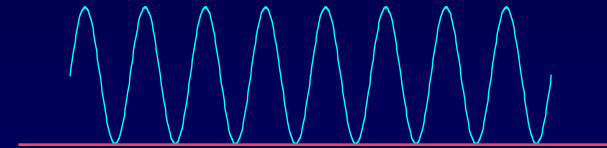
In this week's lab you will combine:

Multi-slit Interference

Two slits:

$$I = 4I_1 \cos^2(\phi/2)$$

For point sources, $I_1 = \text{constant}$.

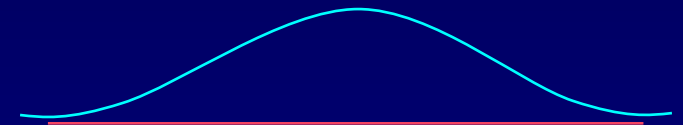


and

Single-slit Diffraction

$$I_1(\theta)$$

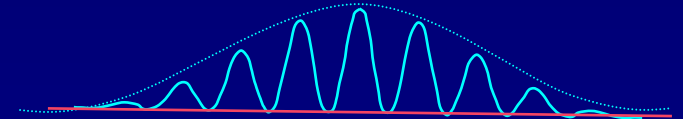
For finite sources, $I_1 = I_1(\theta)$.



to obtain

The total pattern,

$$I = 4I_1(\theta) \cos^2(\phi/2)$$



Don't forget ... The prelab is due at the beginning of lab !!