

# Resolving Power

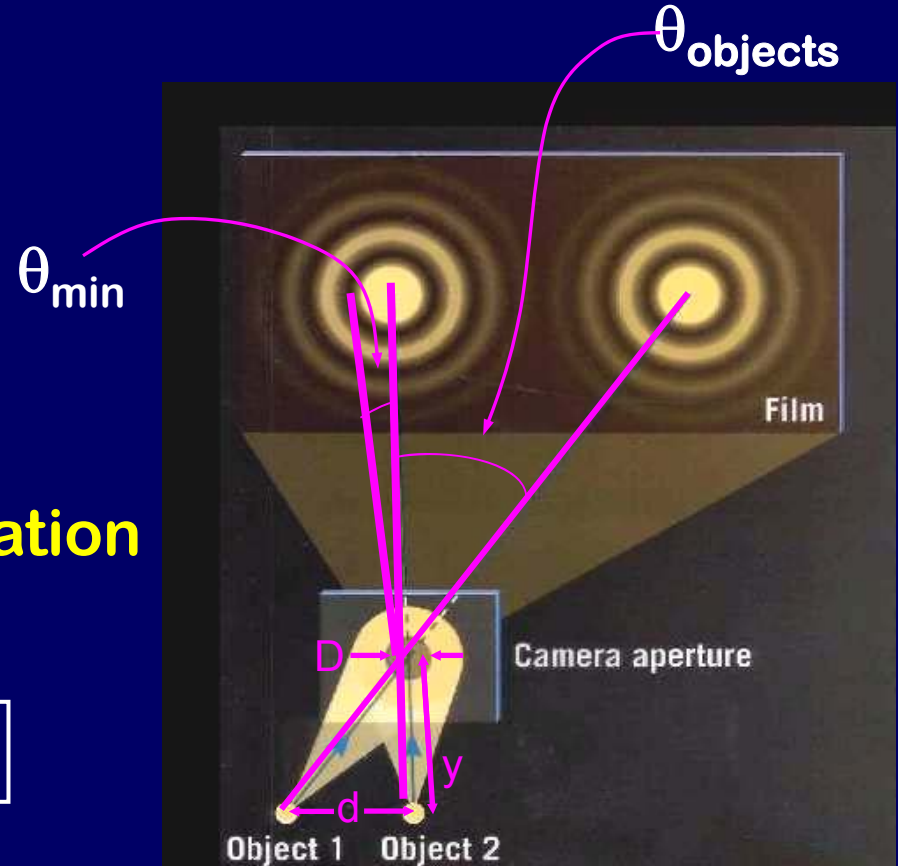
To see two objects distinctly, need  $\theta_{\text{objects}} > \theta_{\text{min}}$

$\theta_{\text{objects}}$  is angle between objects and aperture:

$$\theta_{\text{objects}} \approx \tan(d/y)$$

$\theta_{\text{min}}$  is minimum angular separation that aperture can resolve:

$$\sin \theta_{\text{min}} \approx \theta_{\text{min}} = 1.22 \lambda/D$$



Improve resolution by increasing  $\theta_{\text{objects}}$  or decreasing  $\theta_{\text{min}}$