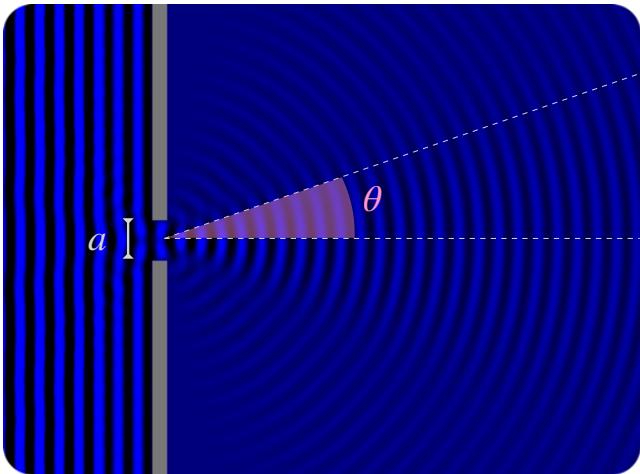
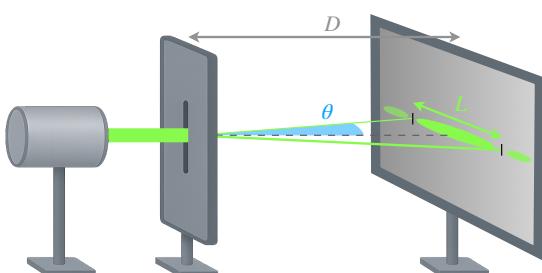


## Diffraction

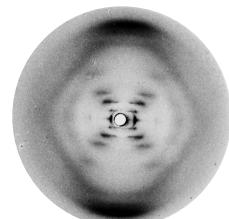


conditions d'observations :

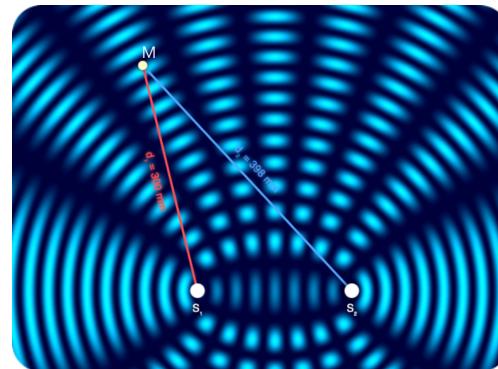
- $a$  et  $\lambda$  du même ordre de grandeur
- pour la lumière  $a \lesssim 100\lambda$



$$\theta = \frac{\lambda}{a}$$



## Interférences



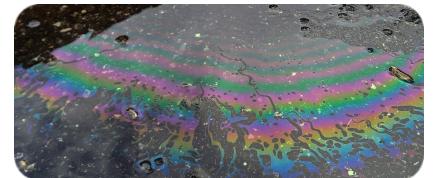
$$\delta = [S_2M] - [S_1M] \quad \text{différence de marche ou de chemin optique}$$

Interférences constructives

$$\frac{\delta}{\lambda} = 2\pi k$$

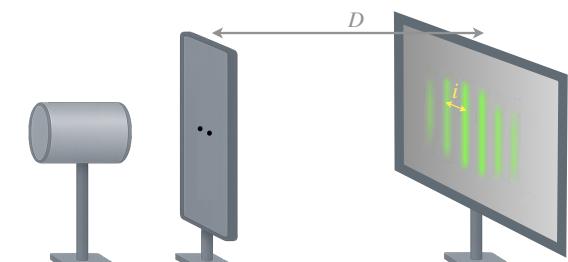
Interférences destructives

$$\frac{\delta}{\lambda} = 2\pi \left( k + \frac{1}{2} \right)$$



conditions d'observations :

- ondes de même nature
- sources synchrones
- sources cohérentes



expérience des trous d'Young