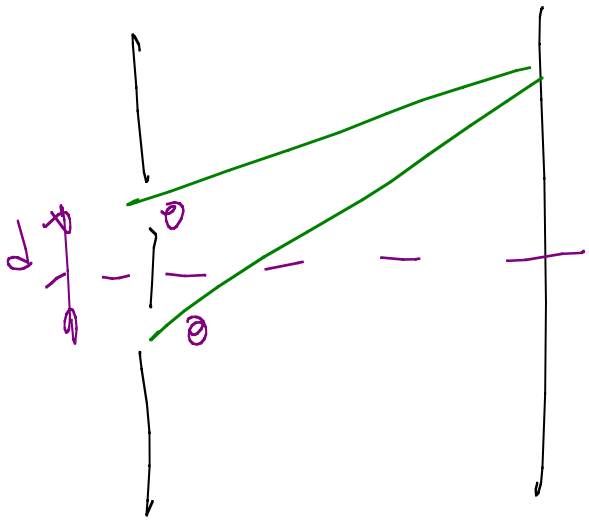
Phys 2120-41 11/28/12

Note Title 11/28/2012

Interference – 2 rays (beams)



$d \sin\theta = m\lambda$ $m = 0, 1, 2, 3 \ldots$

Constructive

Extra dist $2d$

$$\lambda_{film} = \frac{\lambda_{air}}{n}$$

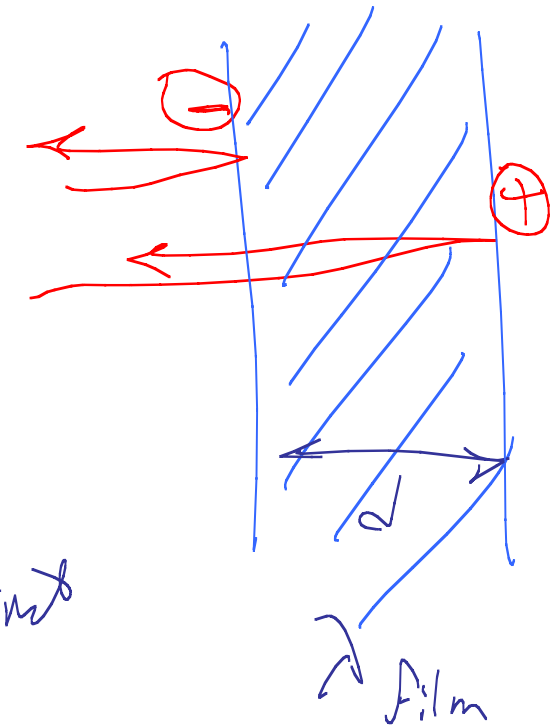
$$2d = \frac{\lambda_{air}}{n} = \lambda_{fil}$$

or

$$= m\lambda_{film}$$ Destr.

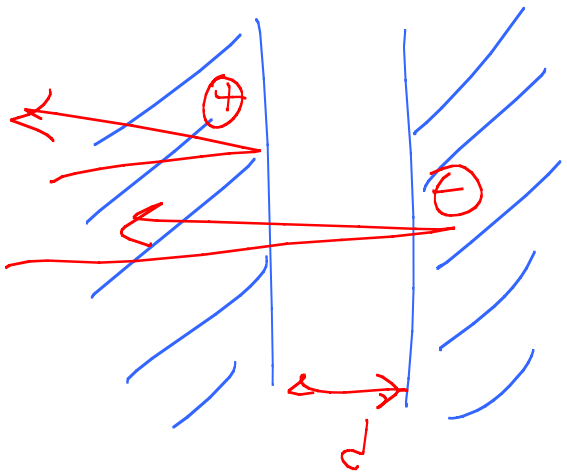
Destr. $2nd = m\lambda$

Constr $2nd = (m+\frac{1}{2})\lambda$ Constr.



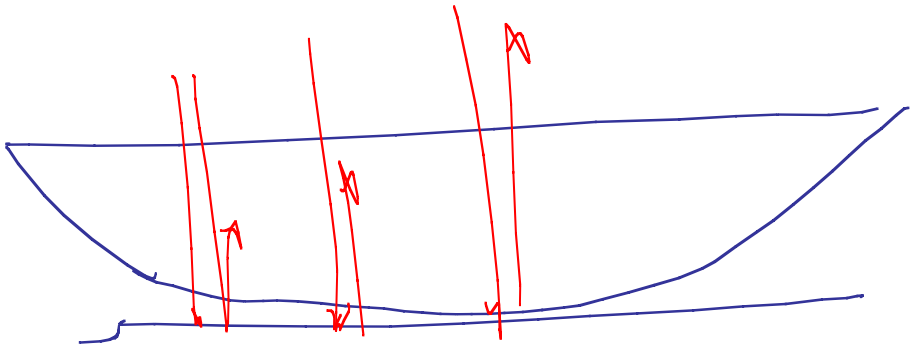
Again $2d = m\lambda_{air}$

$= m\lambda$ Destr.

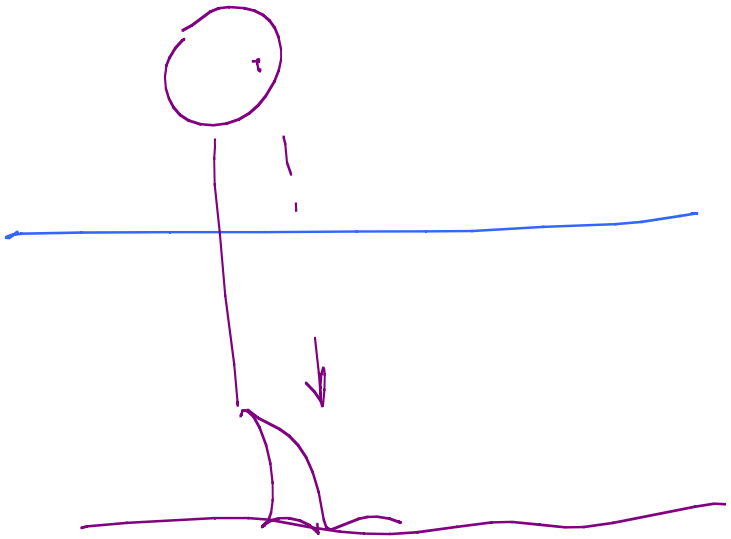


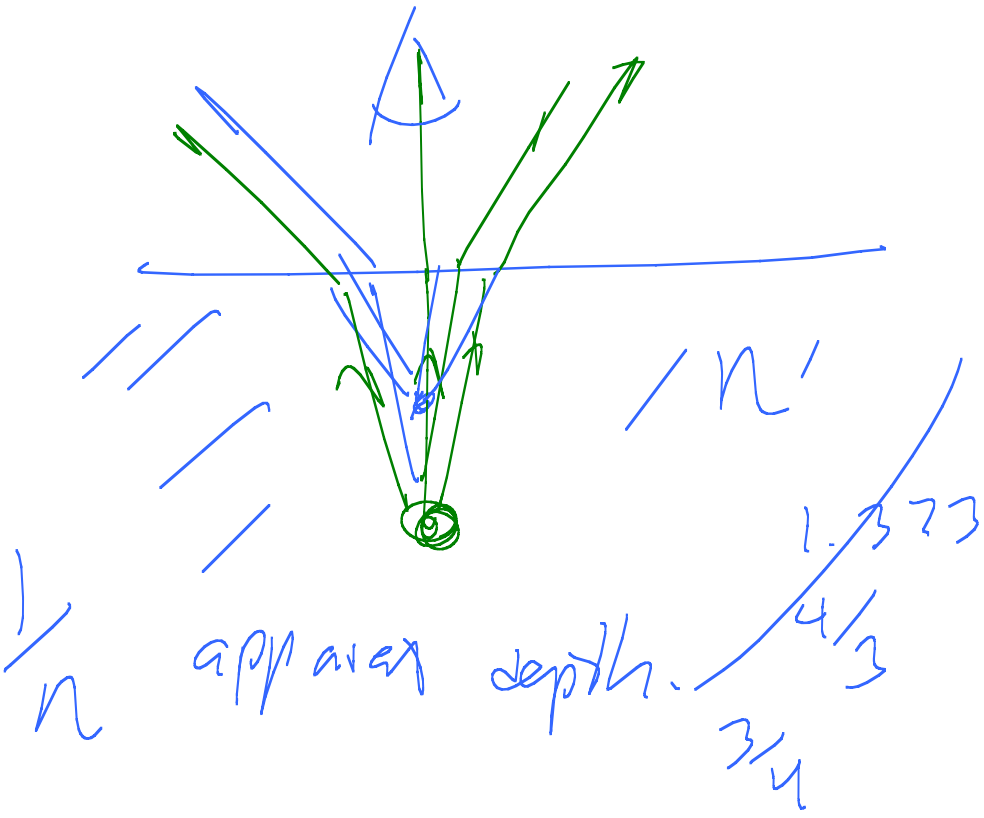
Same contruc.

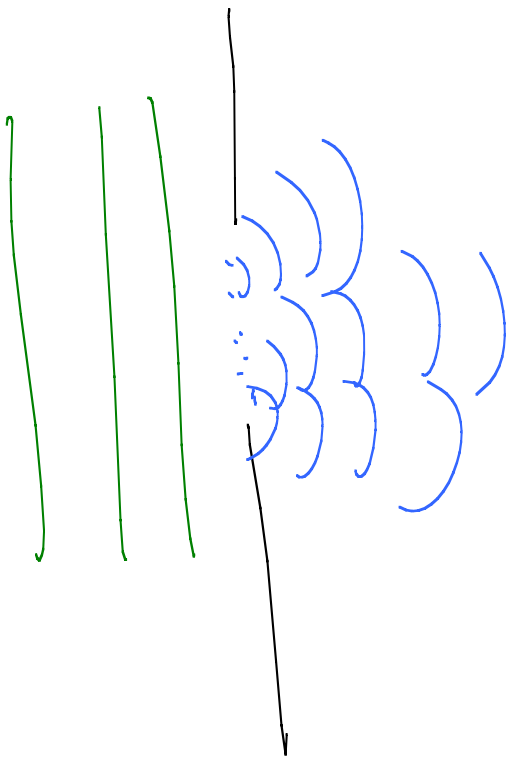
Newton' rings



Problem Set:







Huygen's Principle

Gap: Points ⟷ radiators