$$y_1 = a\cos\omega t \qquad y_2 = a\cos(\omega t + \varphi_0)$$

$$y = y_1 + y_2$$

F. DI PROSTAFERESI

$\cos x = \cos(-x)$

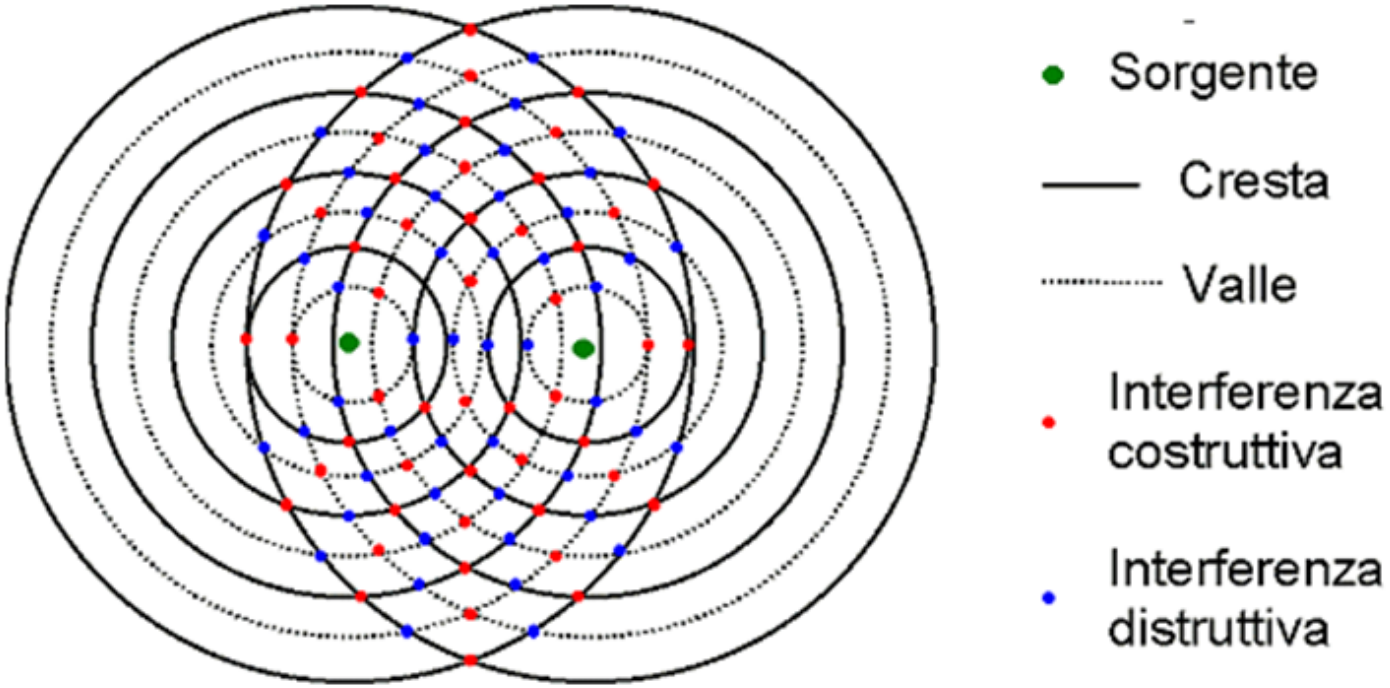
$$\cos\alpha + \cos\beta = 2\cos\frac{\alpha-\beta}{2}\cos\frac{\alpha+\beta}{2}$$

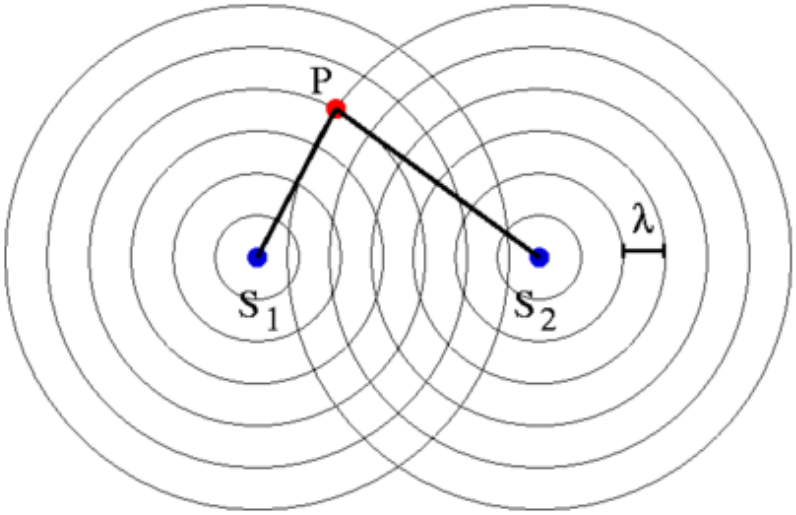
$$y = a\left[\cos\omega t + \cos(\omega t + \varphi_0)\right] =$$

$$= a\,2\cos\frac{\varphi_0}{2}\cos\left(\omega t + \frac{\varphi_0}{2}\right) =$$

AMPIEZZA A

$$= \overbrace{2a\cos\frac{\varphi_0}{2}}\cos\left(\omega t + \frac{\varphi_0}{2}\right) = A\cos\left(\omega t + \frac{\varphi_0}{2}\right)$$


Sorgente
Cresta
Valle
Interferenza costruttiva
Interferenza distruttiva



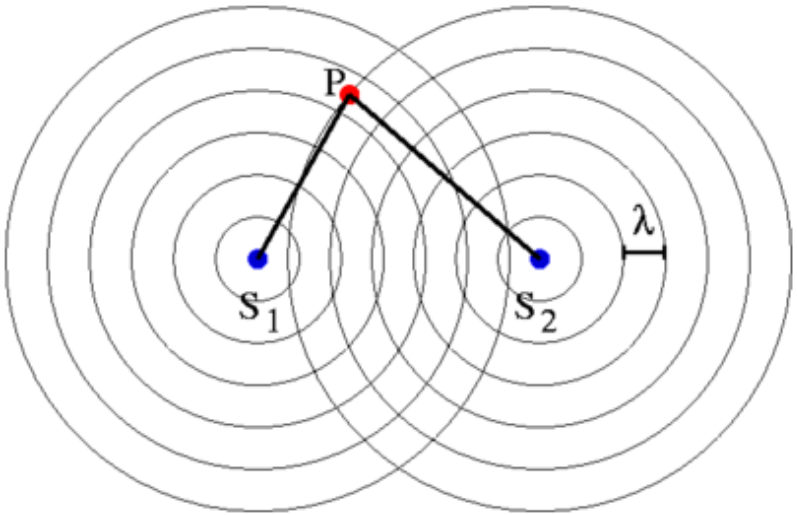
distanza (m) tra punto e sorgente 1

numero intero relativo

$$\overline{S_1 P} - \overline{S_2 P} = k \lambda$$

distanza (m) tra punto e sorgente 2

lunghezza d'onda (m)



distanza (m) tra punto e sorgente 1

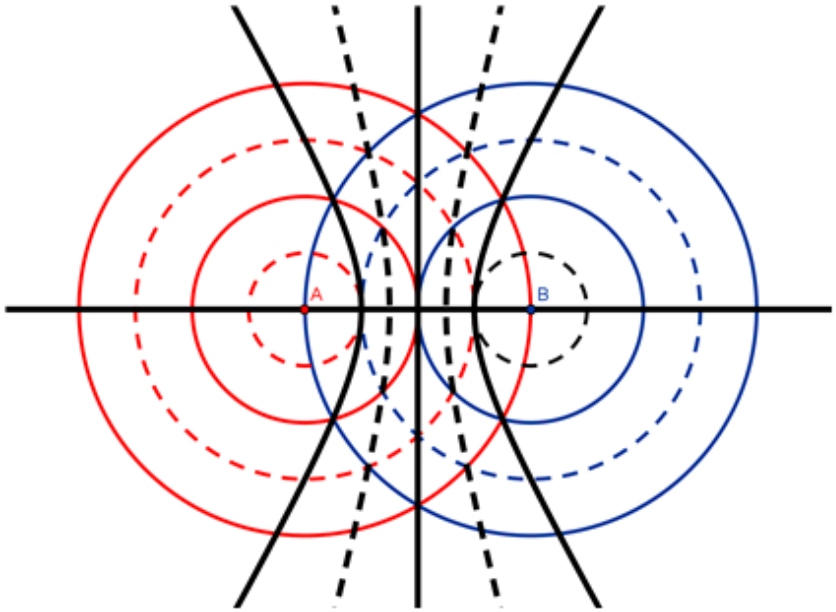
numero intero relativo

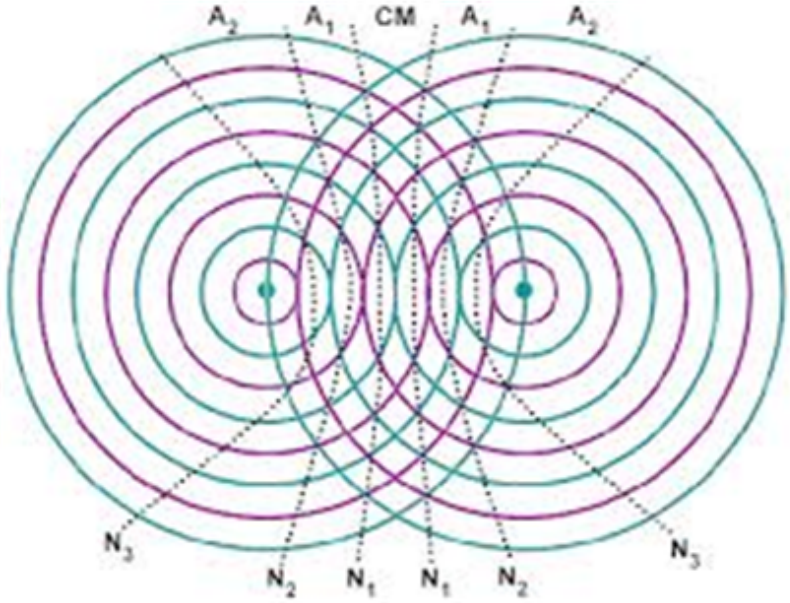
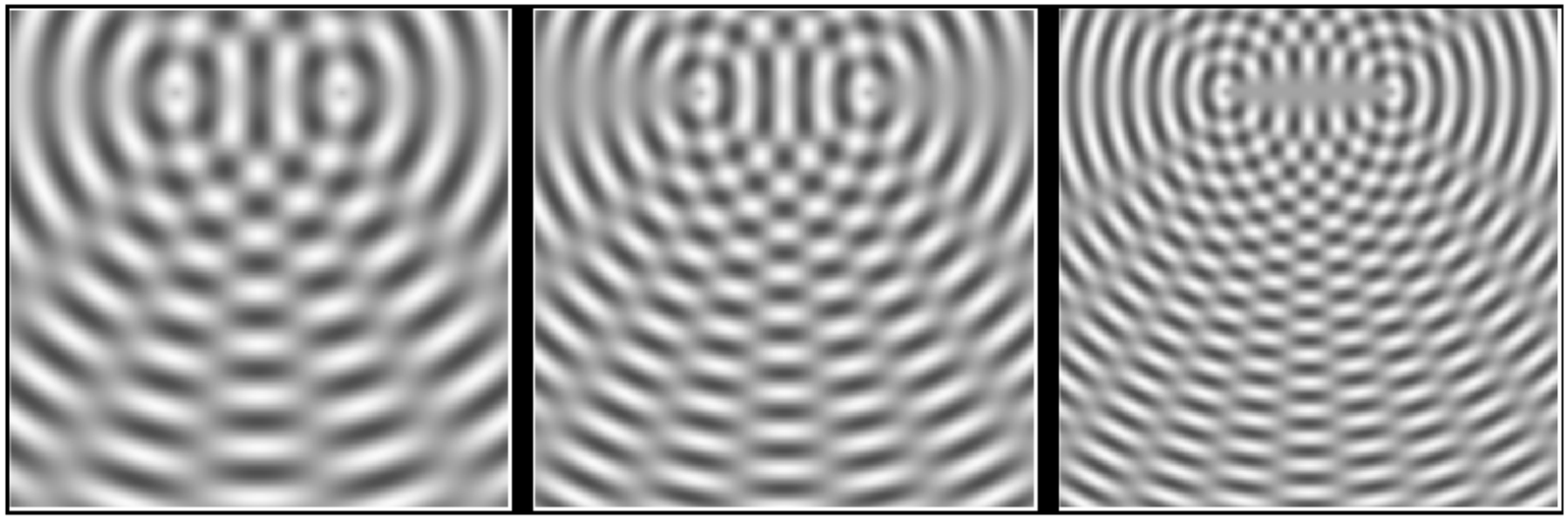
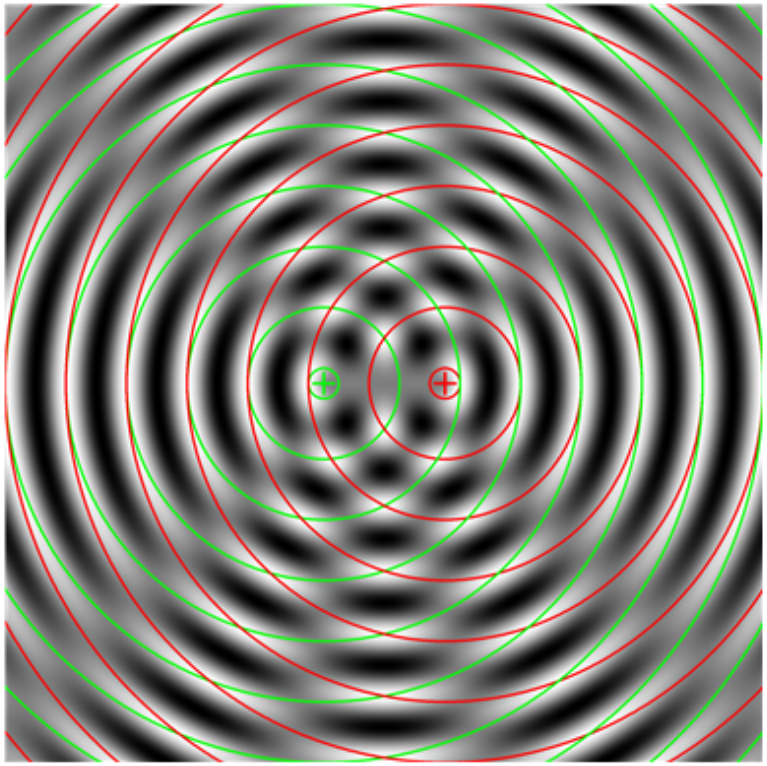
$$\overline{S_1 Q} - \overline{S_2 Q} = k\,\lambda + \frac{1}{2}\lambda$$

distanza (m) tra punto e sorgente 2

lunghezze d'onda (m)

$\frac{\lambda}{2}(2k+1)$ multiplo dispari di metà lunghezza d'onda


A
B


A2
A1
CM
A1
A2
N3
N2
N1
N1
N2
N3