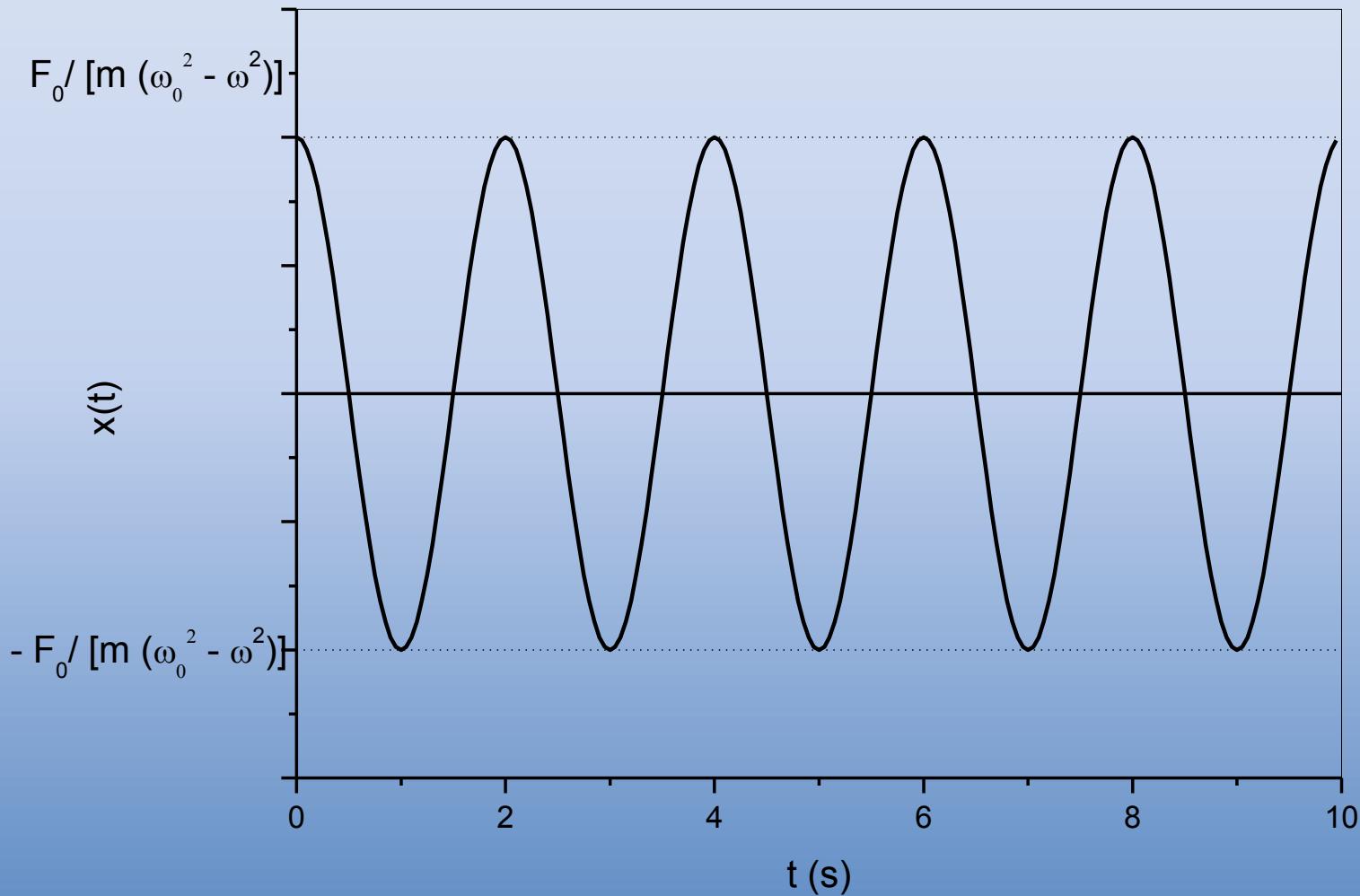


# Oscilações Forçadas

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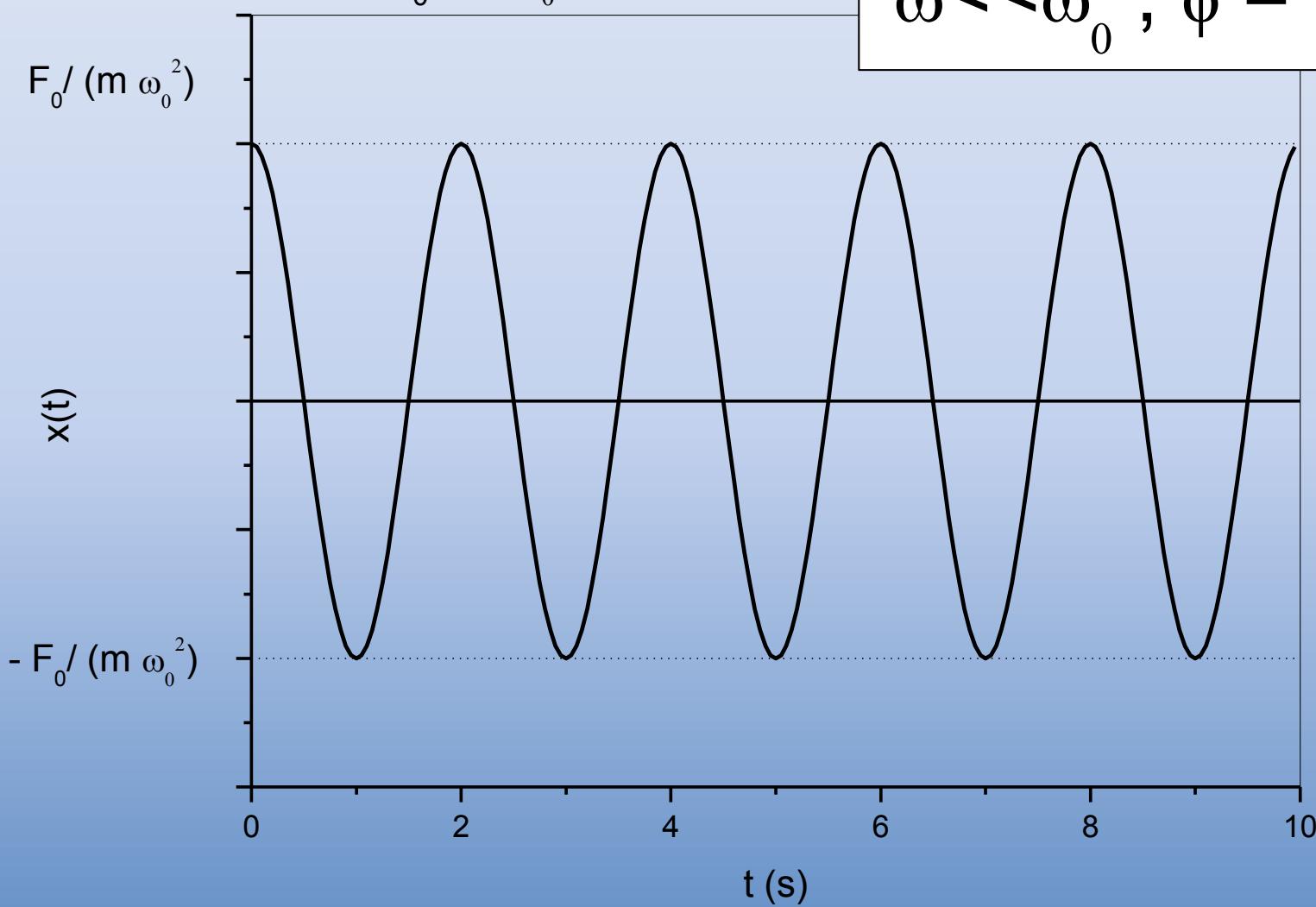
$$x(t) = F_0 / [m (\omega_0^2 - \omega^2)] \cos(\omega t + \phi)$$



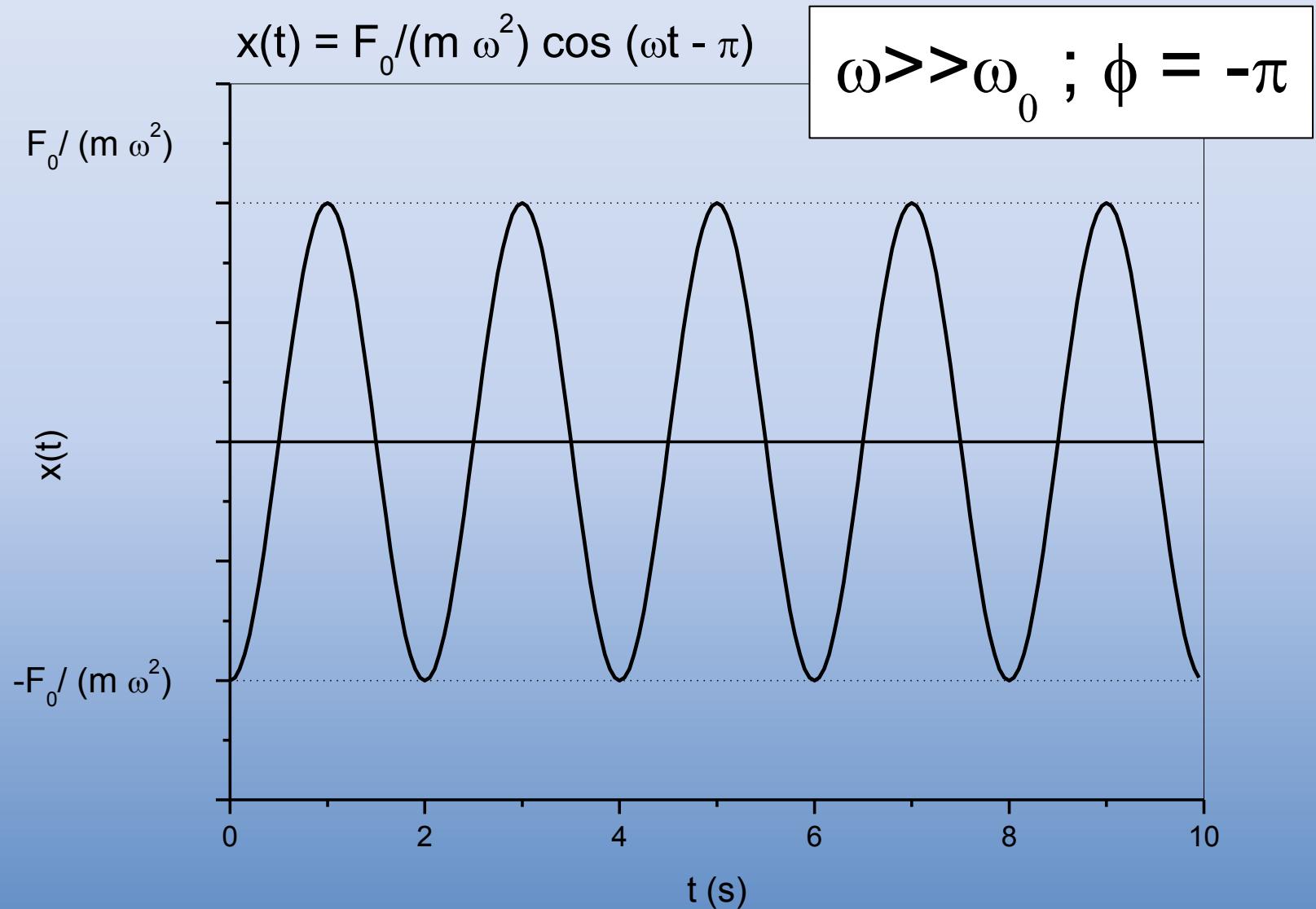
# Limite de baixas Frequências

$$x(t) = F_0 / (m \omega_0^2) \cos(\omega t)$$

$$\omega \ll \omega_0 ; \phi = 0$$

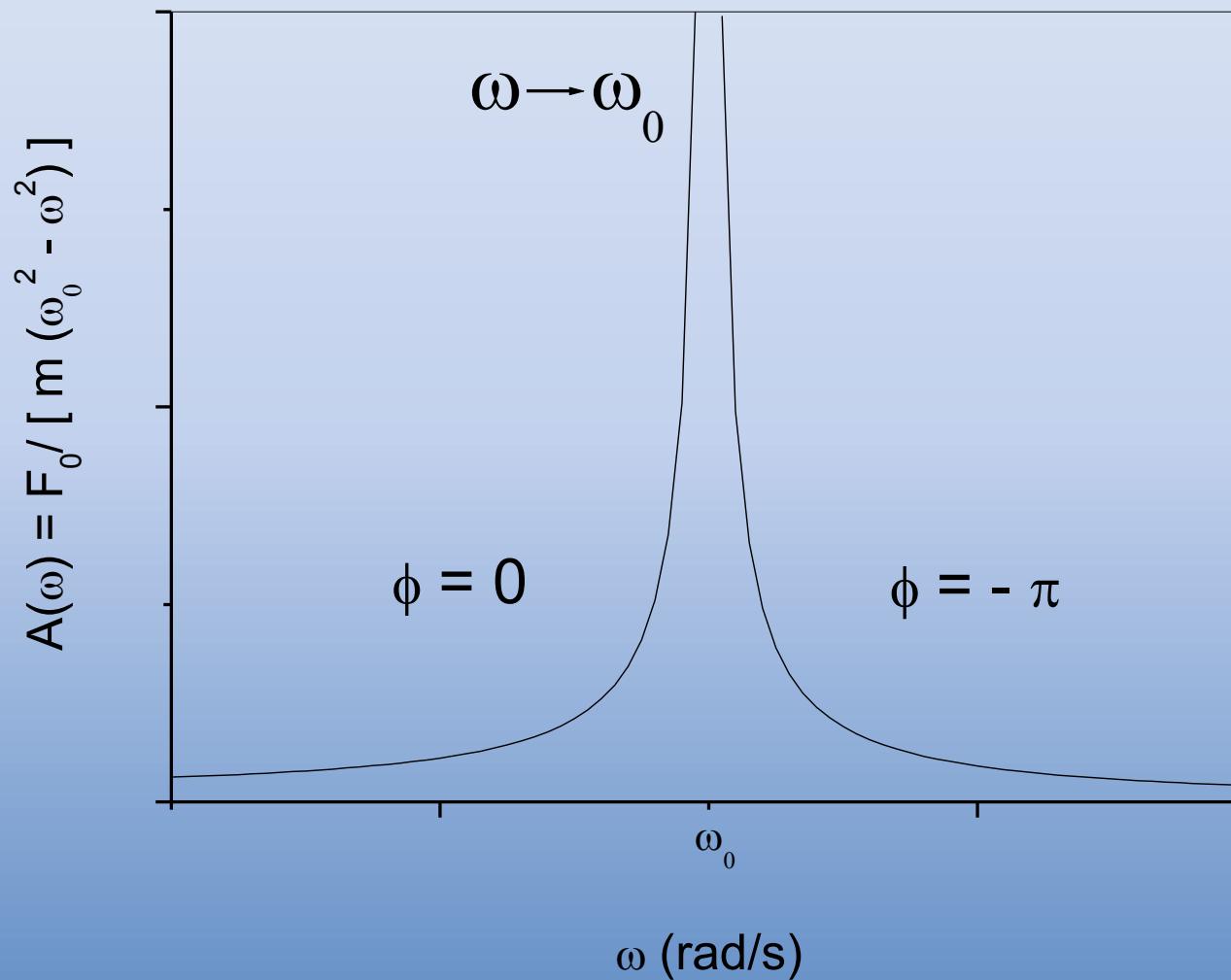


# Limite de altas Frequências



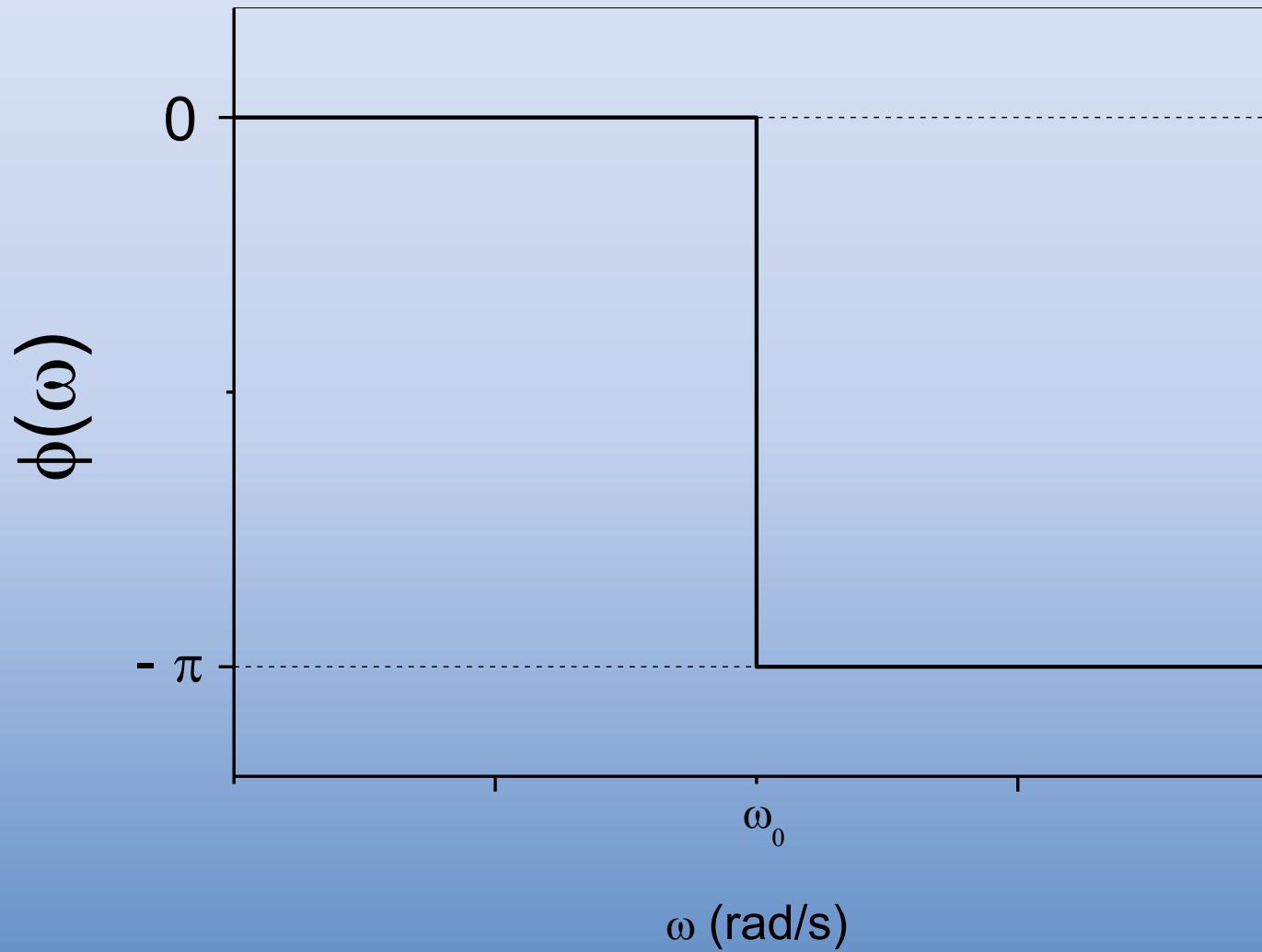
# Ressonância

$$x(t) = F_0 / [ m (\omega_0^2 - \omega^2) ] \cos (\omega t + \phi)$$



# Ressonância

$$x(t) = F_0 / [m (\omega_0^2 - \omega^2)] \cos(\omega t + \phi)$$



# Ressonância

$$x(t) = F_0 / (2m\omega_0) t \sin(\omega_0 t)$$

