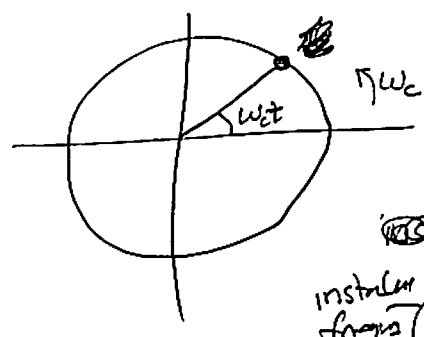
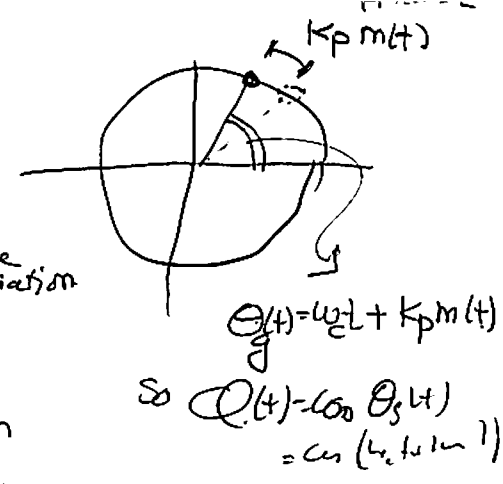


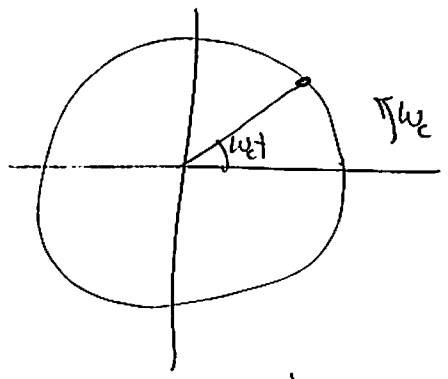
PM modulation



at time = t
 perturbed angle \Rightarrow
 $\omega_c t \Rightarrow \omega_c t + K_p m(t)$
 Phase deviation
 instantaneous radial frequency of the generalised sinusoid is
 $\frac{d}{dt} (\omega_c t + K_p m(t))$
 Frequency deviation Δf PM

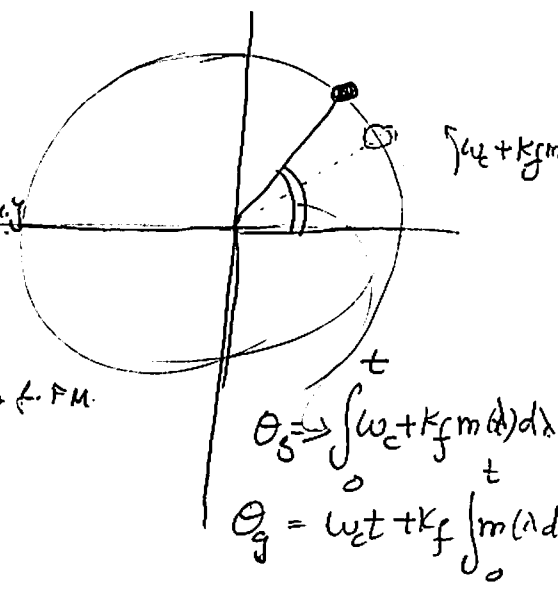


FM



at time = t
 perturbed ω_c
 \Rightarrow instantaneous freq
 $\omega_c \rightarrow \omega_c + K_f m(t)$
 Called frequency deviation Δf FM

hence the radial frequency of generalised sinusoid is
 $\omega_c + K_f m(t)$



and the phase is
 $\omega_c t + K_f \int m(t) dt$

instantaneous

