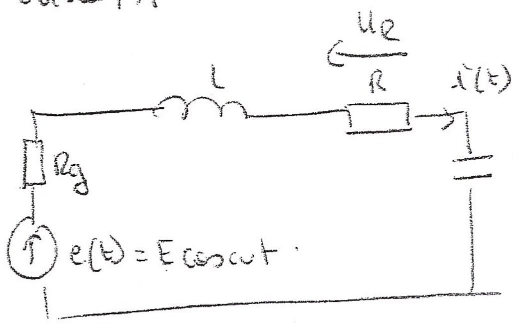
Circuit A.



$u_R(t) = U_R\cos(\omega t + \varphi_R)$

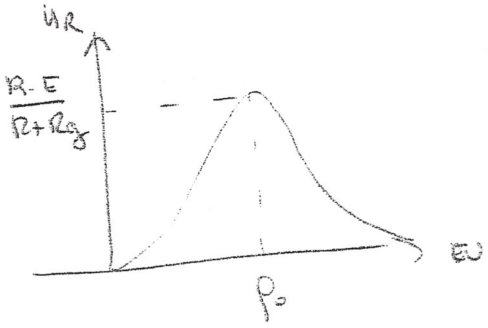
$i(t) = I\cos(\omega t + \varphi_R)$

$u_C(t) = U_C\cos(\omega t + \varphi_C)$.

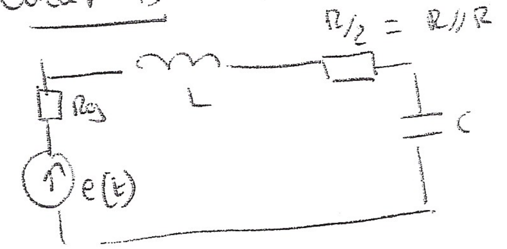
Etude theorique $\quad u_C(f=0) = E$ $\qquad u_R(f=f_0) = \dfrac{R}{R+R_g}\cdot E$

car $\dfrac{\underline{u_R}}{\underline{e}} = \dfrac{R}{R+R_g+j\left(L\omega - \frac{1}{C\omega}\right)}$ $\quad$ avec $f_0 = \dfrac{1}{2\pi\sqrt{LC}}$

$2\lambda,\ Q_0 = \dfrac{R+R_g}{L}$ $\rightarrow$ $\dfrac{\omega_0}{Q_A} = \dfrac{R+R_g}{L}$



Circuit B

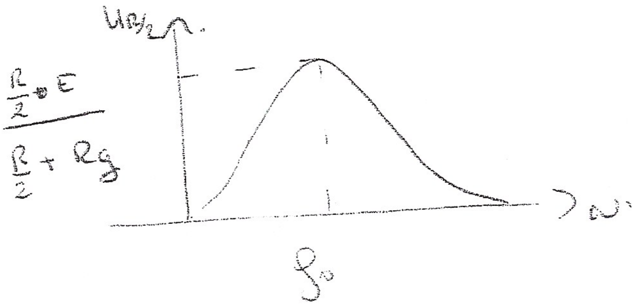


$\cap$ etude theorique pr u_C

et $\dfrac{\omega_0}{Q_B} = \dfrac{R/2 + R_g}{L} < \dfrac{\omega_0}{Q_A}$.

$\dfrac{1}{Q_B} < \dfrac{1}{Q_A} \Rightarrow Q_B > Q_A$.

$\hat{=}\ f_0$



Conclusion. fig 4 $\rightarrow$ représentent la tension aux bornes de R ds A
R/2 ds B.

$u_{R/2})_{max}\ (B) = \dfrac{R\cdot E}{2R_g + R} < (u_R)_{max}\ (A) = \dfrac{R\cdot E}{R+R_g}$.