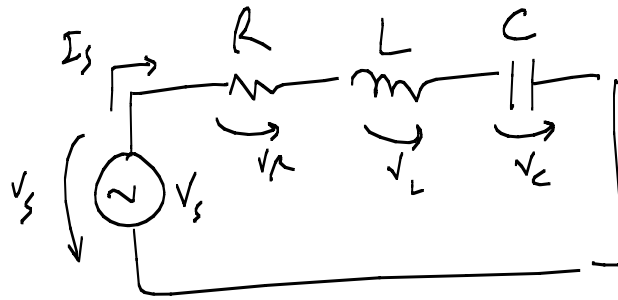


# RLC série : Divisor de tensão

Jan08 J. Gaspar



## Equações

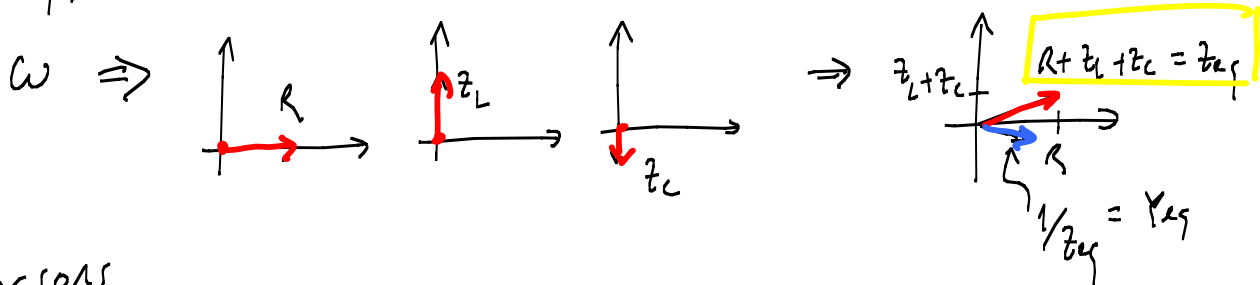
$$v_s \stackrel{\text{KVL}}{=} v_R + v_L + v_C \stackrel{\text{ohm/VIC}}{=} (R + z_L + z_C) I_s \longrightarrow I_s = v_s / (R + z_L + z_C) = v_s / z_{eq}$$

$$v_R = R I_s = R / z_{eq} \cdot v_s$$

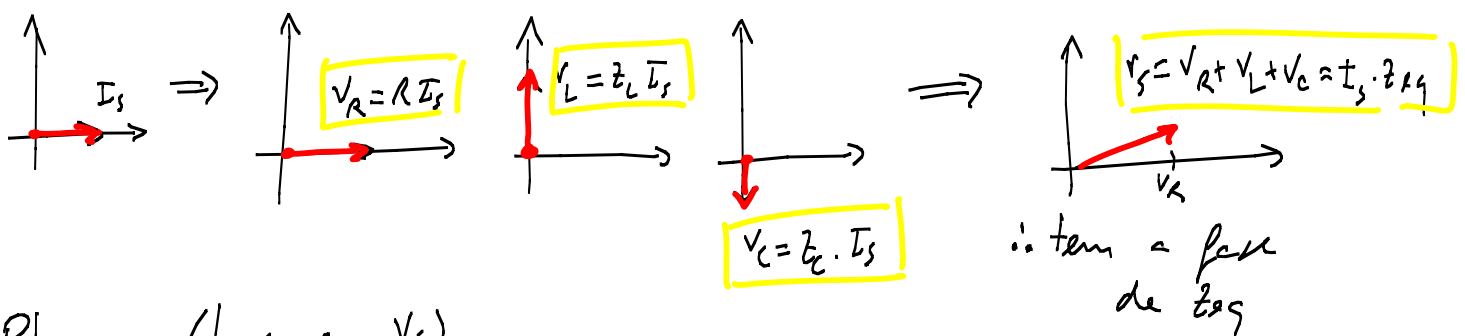
$$v_L = z_L I_s = z_L / z_{eq} \cdot v_s$$

$$v_C = z_C I_s = z_C / z_{eq} \cdot v_s$$

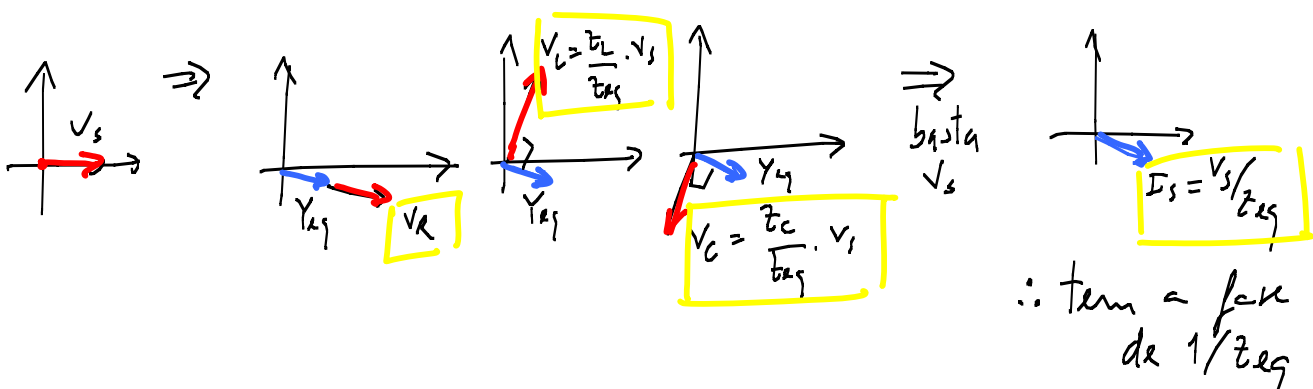
## Impedância



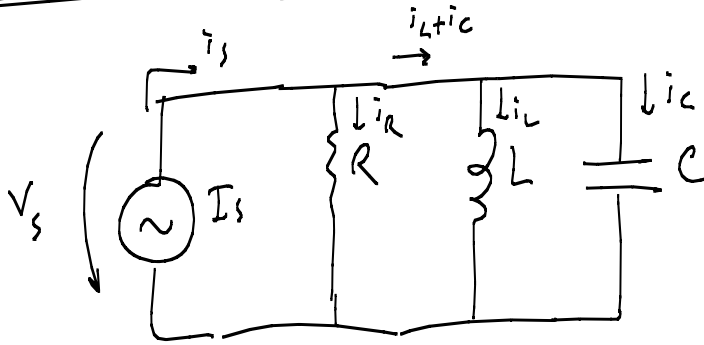
## Phasors



## Phasors (base em v\_s)



# RLC paralelo : Divisor de corrente



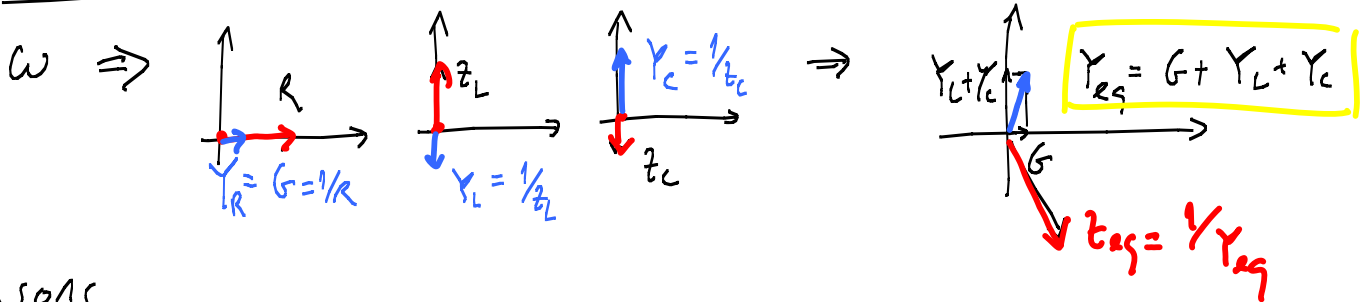
## Equações

$$i_s = i_R + i_L + i_C = V_s (G + Y_L + Y_C) \rightarrow V_s = \frac{i_s}{Y_{eq}}$$

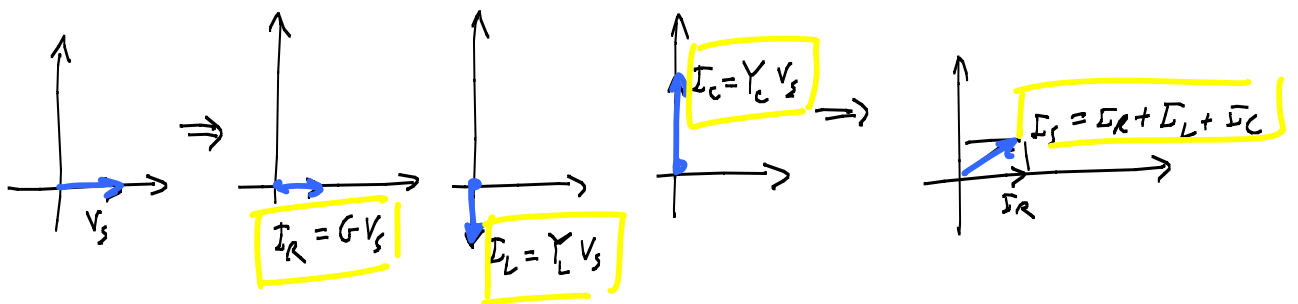
$\uparrow$  KCL                       $\uparrow$  Ohm

$i_R = G V_s = \frac{G}{Y_{eq}} i_s = G z_{eq} i_s$	$i_L = Y_L V_s = \frac{Y_L}{Y_{eq}} i_s = Y_L z_{eq} i_s$	$i_C = Y_C V_s = \frac{Y_C}{Y_{eq}} i_s = Y_C z_{eq} i_s$
---	---	---

## Impedâncias (Z) / Admitâncias (Y)



## Phasors



## Phasors (base em \$I\_s\$)

