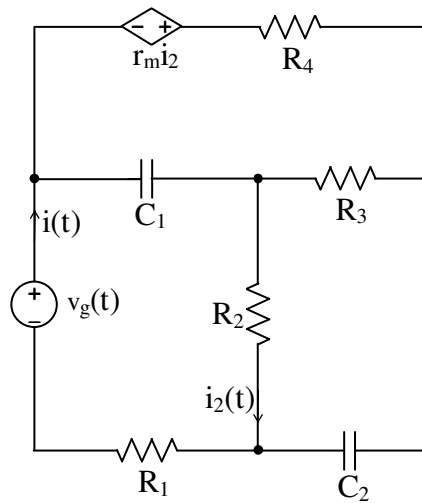


1) Supponendo che il circuito sia a stato zero al tempo $t=0$, calcolare la corrente $i(t)$.

$$\left\langle \begin{aligned} i(t) &= 10.0e^{-t} - 0.275e^{-0.6t} + 72.8\cos(2t + 0.265) = 10e^{-t} - \frac{30}{109}e^{-\frac{3}{5}t} + \frac{7660}{109}\cos(2t) - \frac{2080}{109}\sin(2t)A \\ \left[\begin{aligned} v_{C1}(t) &= -10.0e^{-t} + 1.38e^{-0.6t} + 17.7\cos(2t - 1.06)V \\ v_{C2}(t) &= -10.0e^{-t} - 1.38e^{-0.6t} + 27.1\cos(2t - 1.14)V \end{aligned} \right] \end{aligned} \right\rangle$$

$$v_g(t) = 100\cos(2t)u(t) \text{ V}, \quad R_1 = R_2 = R_3 = R_4 = 1 \Omega, \quad r_m = 1 \Omega, \quad C_1 = C_2 = 1 \text{ F}$$



2) Calcolare le tensioni \dot{V}_{ab} , \dot{V}_{ac} , \dot{V}_{bc} .

$$\langle \dot{V}_{ab} = 75(\sqrt{3} + j)V; \quad \dot{V}_{ac} = 50(\sqrt{3} - j)V; \quad \dot{V}_{bc} = -25(\sqrt{3} + j5)V \rangle$$

$$\dot{E}_1 = 200\angle 30^\circ \text{ V} \quad \text{terna simmetrica diretta}$$

$$R_1 = R_2 = 10 \Omega, \quad R_3 = 5 \Omega, \quad R_4 = 15 \Omega, \quad R = 20 \Omega, \quad X = -20 \Omega$$

