$$\sum u = 0\mathrm{V} : u_i - u_R - u_C - u_L = 0\mathrm{V}$$

$$i = C\frac{\mathrm{d}u_C}{\mathrm{d}t}$$

$$u_L = L\frac{di}{dt} = LC\frac{d^2u_C}{dt^2}$$

$$u_i - RC\frac{du_C}{dt} - u_C - LC\frac{d^2u_C}{dt^2} = 0$$