

Časovni prostor

Fourier

Laplace

$$f(t) \longleftrightarrow F(\omega) = \int f(t) e^{-j\omega t} dt$$

$$F(s) = \int f(t) e^{-st} dt$$

$$j = \sqrt{-1}$$

$$s = \sigma + j\omega$$

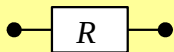
$$\frac{d}{dt} f(t) \longleftrightarrow j\omega \cdot F(\omega)$$

$$s \cdot F(s)$$

$$\int f(t) dt \longleftrightarrow \frac{1}{j\omega} \cdot F(\omega)$$

$$\frac{1}{s} \cdot F(s)$$

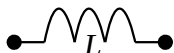
$$u(t) = R \cdot i(t)$$



$$U(\omega) = R \cdot I(\omega)$$

$$U(s) = R \cdot I(s)$$

$$u(t) = L \cdot \frac{di(t)}{dt}$$



$$U(\omega) = j\omega L \cdot I(\omega)$$

$$U(s) = sL \cdot I(s)$$

$$u(t) = \frac{1}{C} \cdot \int i(t) dt$$



$$U(\omega) = \frac{1}{j\omega C} \cdot I(\omega)$$

$$U(s) = \frac{1}{sC} \cdot I(s)$$