

## Integrali con la Delta di Dirac

$$\int_{-\infty}^{+\infty} \delta(\tau) d\tau = u(t) = \begin{cases} 0 & \text{per } t < 0 \\ 1 & \text{per } t \geq 0 \end{cases}$$

$$\int_{-\infty}^{+t} \delta(\tau) d\tau = u(t) = \begin{cases} 0 & \text{per } t < 0 \\ 1 & \text{per } t \geq 0 \end{cases}$$

$$\int_t^{+\infty} \delta(\tau) d\tau = u(-t) = \begin{cases} 1 & \text{per } t < 0 \\ 0 & \text{per } t \geq 0 \end{cases}$$

$$\int_{+t-T}^{+t} \delta(\tau) d\tau = \Pi\left(\frac{t - \frac{T}{2}}{T}\right) = \Pi\left(\frac{t}{T} - \frac{1}{2}\right) = \begin{cases} 0 & \text{per } t < 0 \\ 1 & \text{per } 0 < t < T \\ 0 & \text{per } t > T \end{cases}$$