

1 Trasformate di Fourier comuni

$f(t)$	$F(\mu)$
$\cos(2\pi\mu_0 t)$	$\frac{1}{2} [\delta(\mu - \mu_0) + \delta(\mu + \mu_0)]$
$A\Pi(t/w)$	$Aw \cdot \text{sinc}(\mu w)$
$e^{j2\pi t t_0}$	$\delta(\mu - t_0)$
$f(t - t_0)$	$F(\mu) \cdot e^{-j2\pi\mu t_0}$
$f(t) \cdot e^{j2\pi\mu_0 t}$	$F(\mu - \mu_0)$
$\sum_{n=-\infty}^{+\infty} \delta(t - n\Delta T)$	$\frac{1}{\Delta T} \sum_{n=-\infty}^{+\infty} \delta(\mu - \frac{n}{\Delta T})$

2 Convoluzione

$$f * h(t) = \int_{-\infty}^{+\infty} f(\tau) h(t - \tau) d\tau$$

3 Campionamento

$$\tilde{f}(t) = f(t) \cdot \sum_{n=-\infty}^{+\infty} \delta(t - n\Delta T)$$

$$\tilde{F}(\mu) = \mu_s \sum_{n=-\infty}^{+\infty} F(\mu - \mu_s \cdot n)$$

$$f(t) = \sum_{n=-\infty}^{+\infty} f(n\Delta T) \cdot \text{sinc}\left(\frac{t - n\Delta T}{n\Delta T}\right)$$