$$\int_{-\infty}^{+\infty} x(k) \, \delta(t-t_0) \, dt = \int_{-\infty}^{+\infty} (k) \, \delta(t_0-t) \, dt \quad (PARITA)$$

DIM

$$\int_{-\infty}^{+\infty} \delta(t) \, \delta(t_0 - t) \, dt = \lim_{\Delta \to 0} \int_{-\infty}^{+\infty} \chi(t) \, D(t_0 - t, \Delta) \, dt$$

$$= \lim_{\Delta \to 0} \int_{-\infty}^{+\infty} \chi(t) \, dt = 1 \times (t_0) \, \Delta = \chi(t_0)$$

There is a substitute of the following of the point of the

$$X(t) * S(t) = x(t) = \int_{-\infty}^{+\infty} x(\pi) S(t-\tau) d\tau$$

$$S(t) \in S(t) \in S(t)$$
NEUTRO
COMUDIUZIUME

$$x(t_0) = \int_{-\infty}^{+\infty} (t_0) \delta(t_0 - t_0) dt$$

$$sostituisco, in ordine: t \to \tau, to \to t$$

$$= > \mathfrak{D} \rightarrow \times (t_0) = \int_{-\infty}^{+\infty} \chi(\tau) \, \delta(t_0 - \tau) \, d\tau \left[ \times (t) = \int_{-\infty}^{+\infty} \chi(\tau) \, \delta(t - \tau) \, d\tau \right]$$

$$8(2k) = \frac{8(k)}{|2|}, 2\neq 0$$

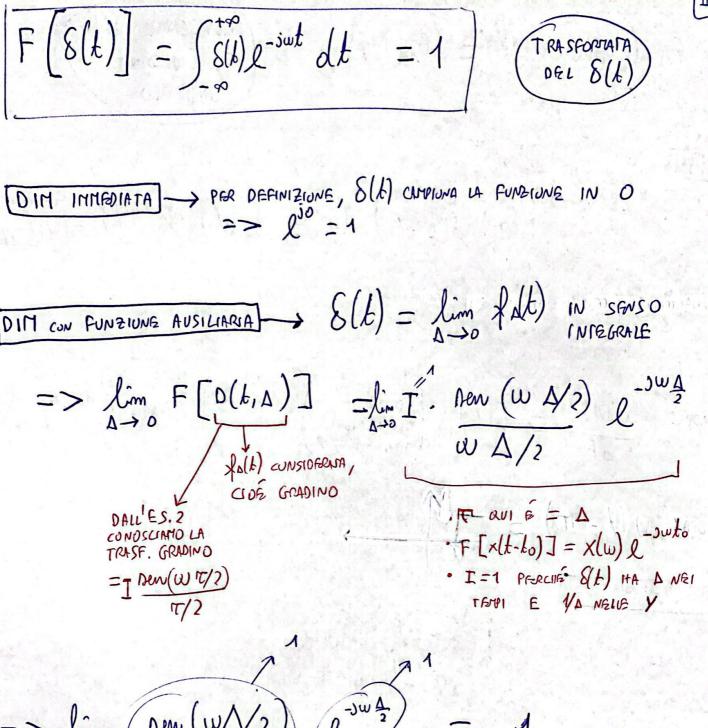
DIM

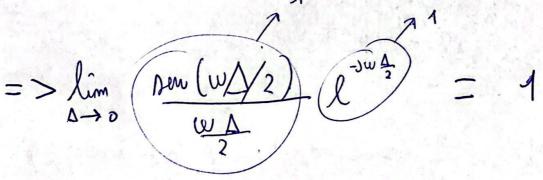
$$\int_{-\infty}^{+\infty} x(t) \, \delta(2t) \, dt \qquad \xi = 2t$$

$$\rightarrow \int_{X}^{+\infty} \left( \xi / \right) S(\xi) \frac{d\xi}{|\lambda|} = \frac{1}{|\lambda|} = \frac{1}{|\lambda|} \times \frac{1}{|\lambda|} = \frac{1}{|\lambda|} =$$

$$= \frac{1}{121} \int_{-\infty}^{\infty} x(\xi_{\lambda}) \delta(\xi) d\xi = \frac{1}{121} x(0) =$$

$$=\frac{1}{121}\int_{-\infty}^{+\infty}x(k)\delta(k)dk=\int_{-\infty}^{+\infty}x(k)\frac{\delta(k)}{121}dk$$





 $\int_{-\infty}^{\kappa} \delta(r) dr = U(k)$ DIU  $Y(k) = \int_{-\infty}^{+\infty} 8(\tau) U(k-\tau) d\tau = 8(k) * U(k) = U(k)$ ASSET & COM 19 CONT U(k) = { 1 t > 0 } NOTA: dult - 8(t) (NEL SENSO)

OBLIE

OISTRIBUTIONI,

ALTERNATIO = 0 oux  $(r,t) = \begin{cases} 4 & r < t \\ 0 & r > t \end{cases}$  $\int_{-\infty}^{\infty} \delta(r) dr = \int_{-\infty}^{+\infty} \delta(r) dr =$ berneue 01 resinere 8(4) E DELMISTO NETTINERATE CIOÉ DUX (T, t) NI FRA - 2 + 40 VE ESISTONO ALTRE FUNZIONI GRADINO -> 1(K) = U(K) - 1 -> (regno (k) = 2 · 1(k)