



Tratamiento de Señales

Version 2024-I

Muestreo en 1D

[Capítulo 4]

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Recordatorio

$$f(t) * \delta(t) = f(t)$$

La convolución de una señal por el impulso
es la misma señal

Recordatorio

$$f(t) * g(t) \quad \circ \text{---} \bullet \quad F(\omega)G(\omega)$$

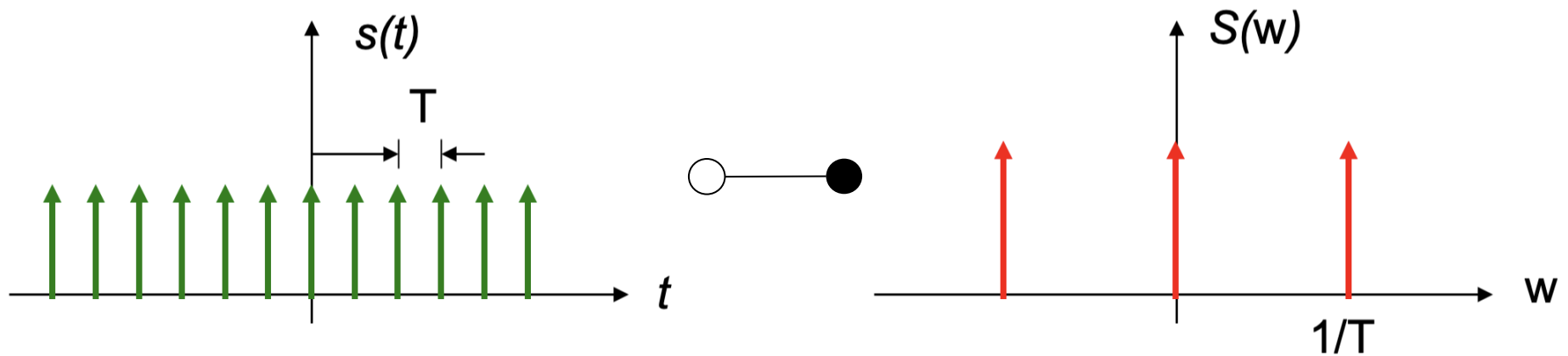
La transformada de Fourier de la convolución de dos señales es la multiplicación de sus transformadas de Fourier

Recordatorio

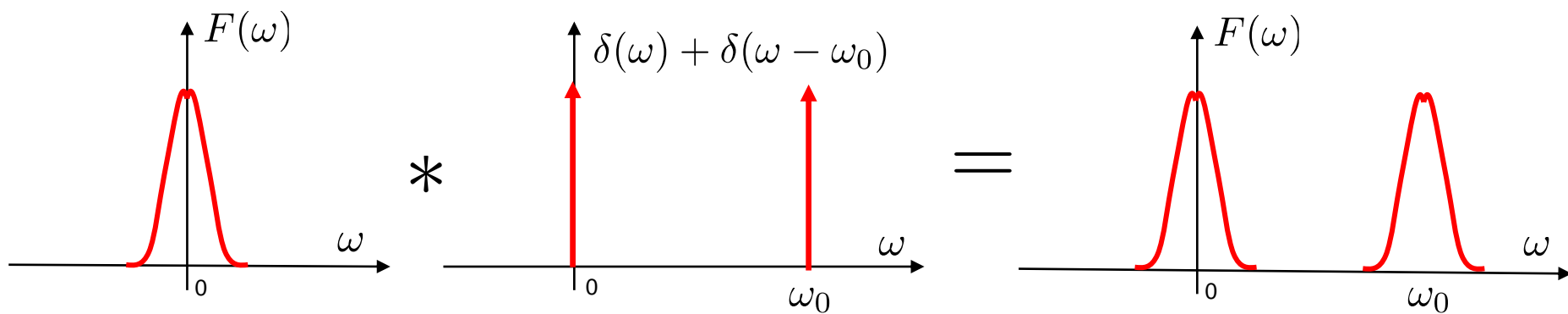
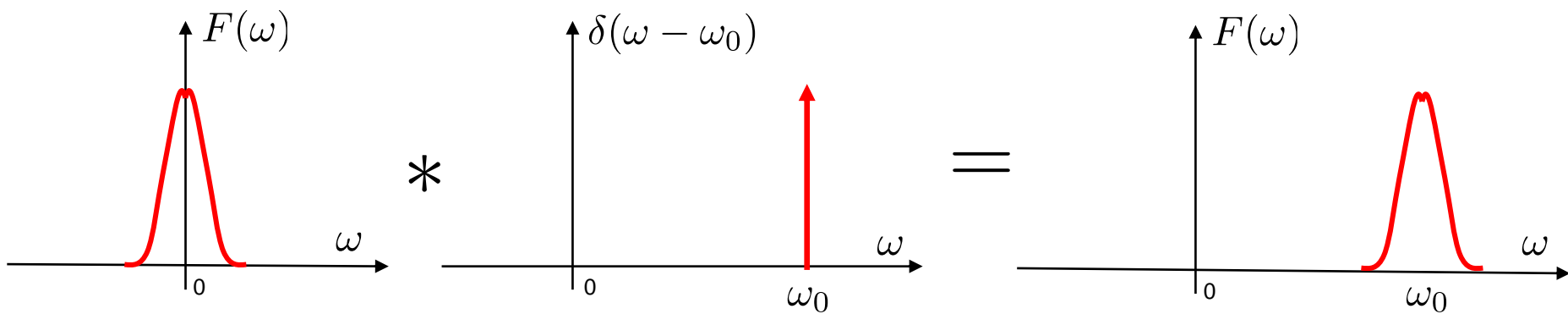
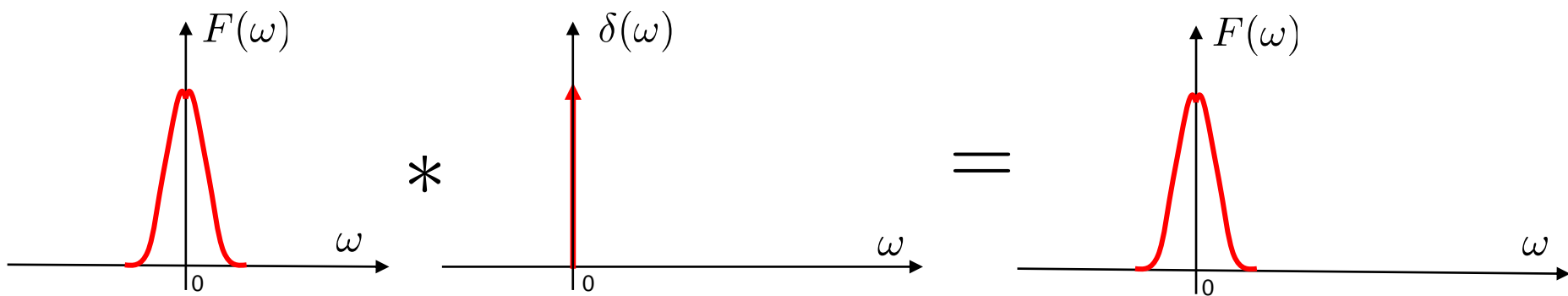
$$f(t)g(t) \quad \circ \text{---} \bullet \quad F(\omega) * G(\omega)$$

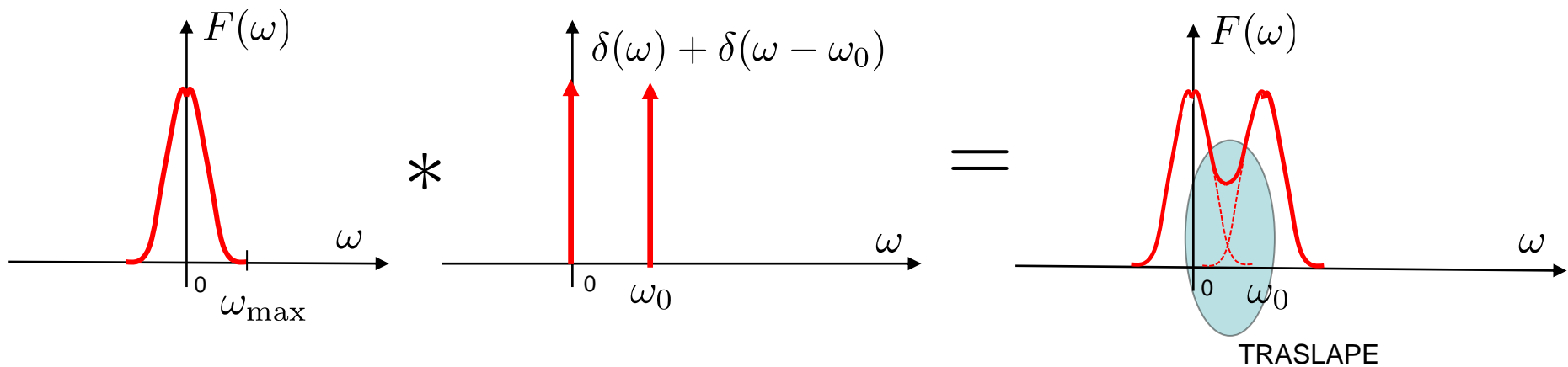
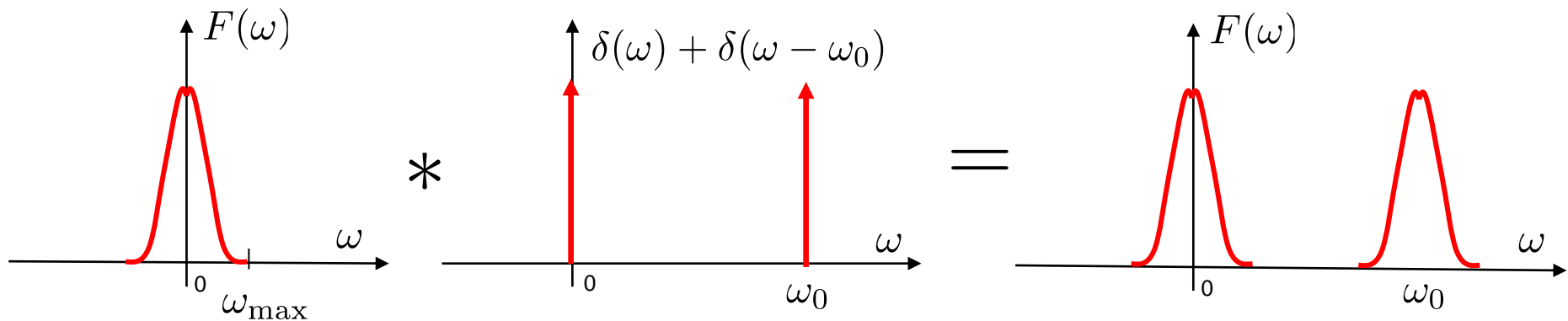
La transformada de Fourier de la multiplicación de dos señales
es la convolución de sus transformadas de Fourier

Recordatorio



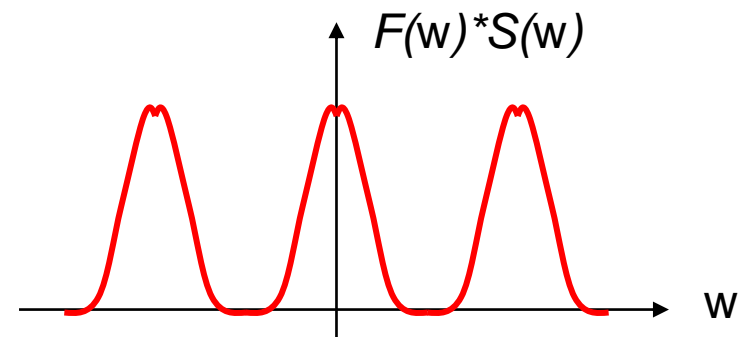
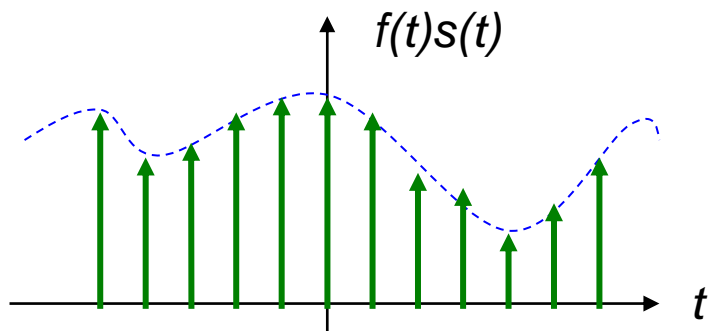
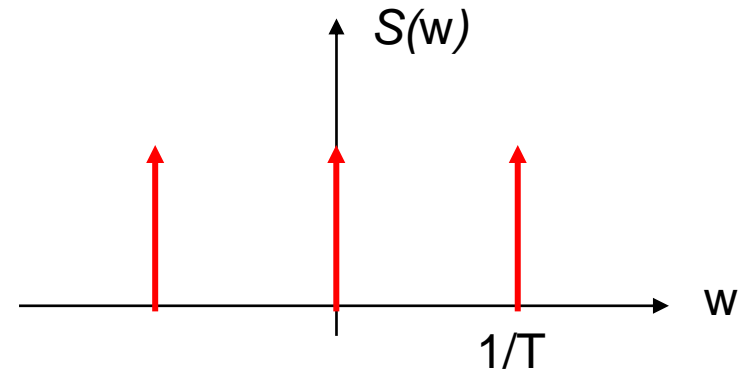
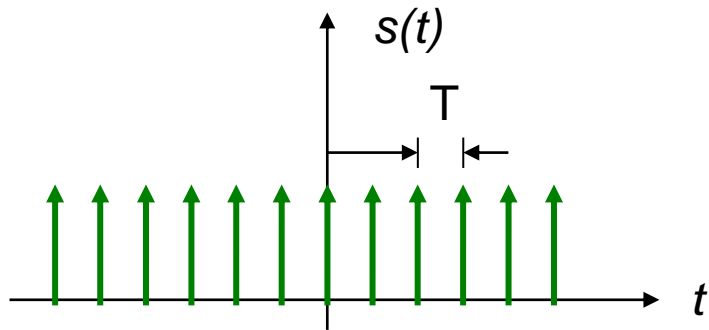
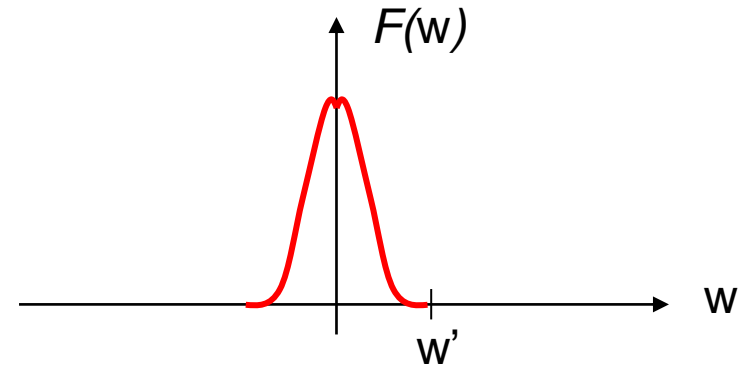
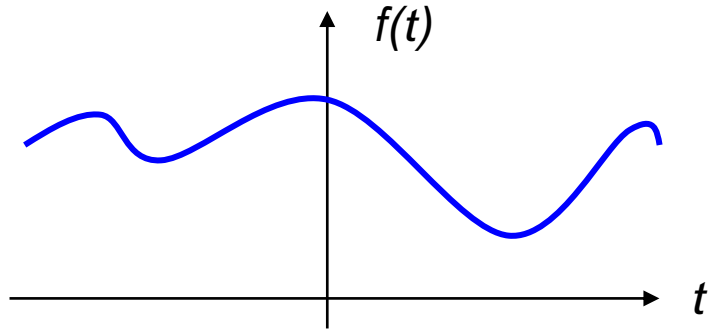
La transformada de Fourier de un tren de impulsos de periodo T
es un tren de impulsos de periodo $1/T$



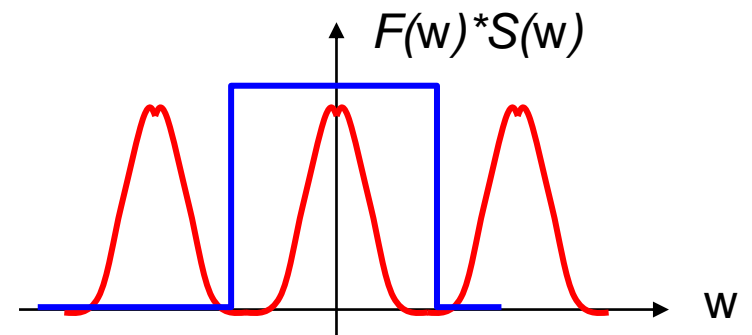
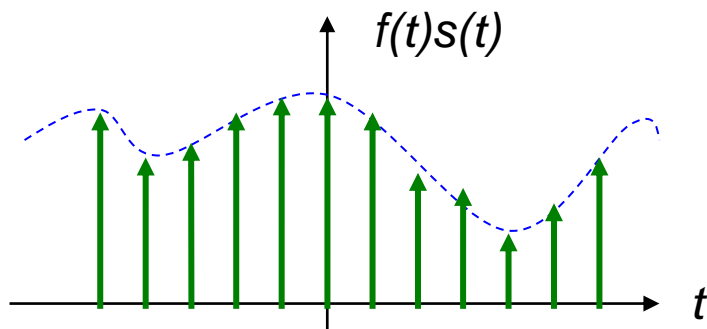
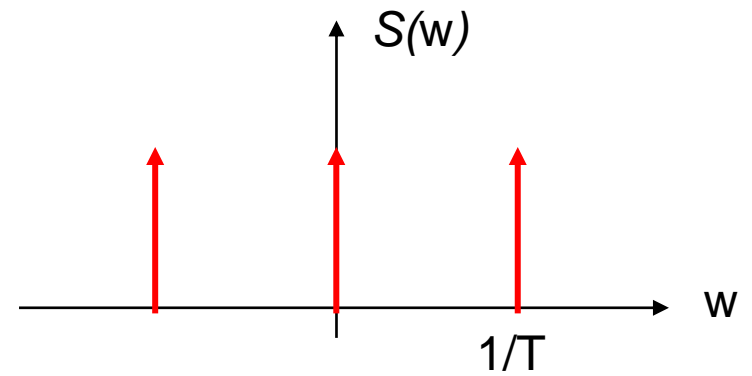
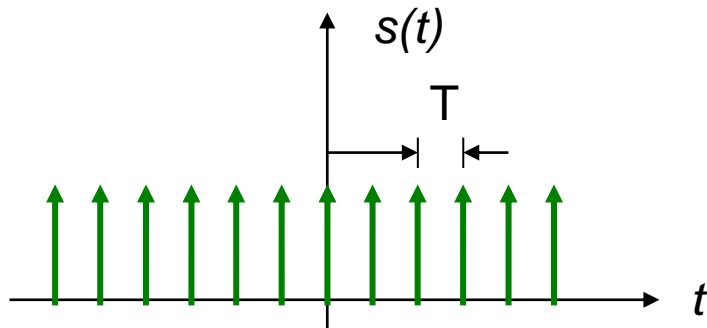
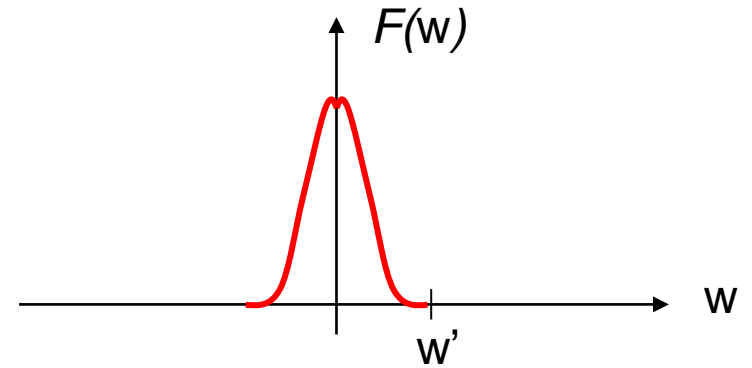
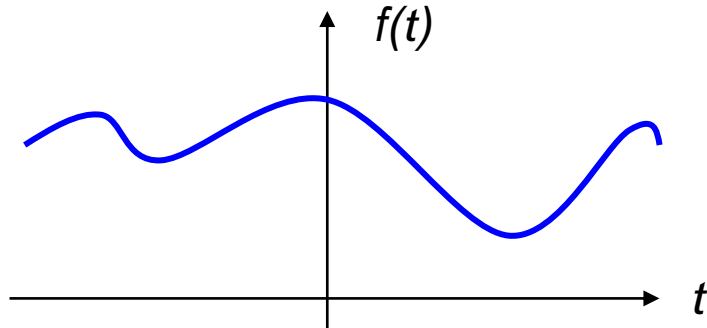


Si $\omega > 2\omega_{\max}$ no hay traslape

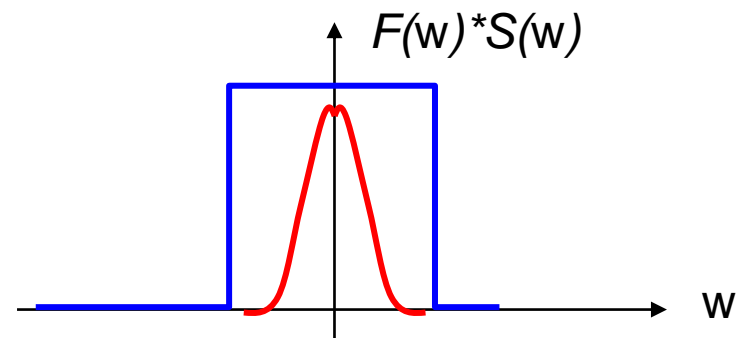
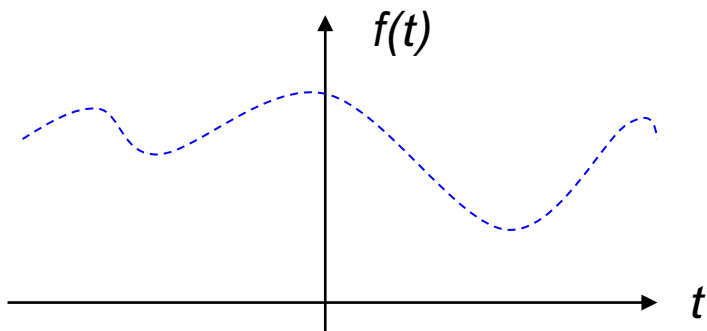
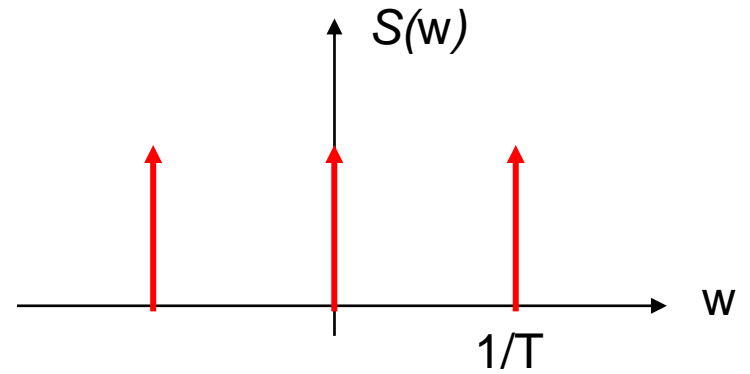
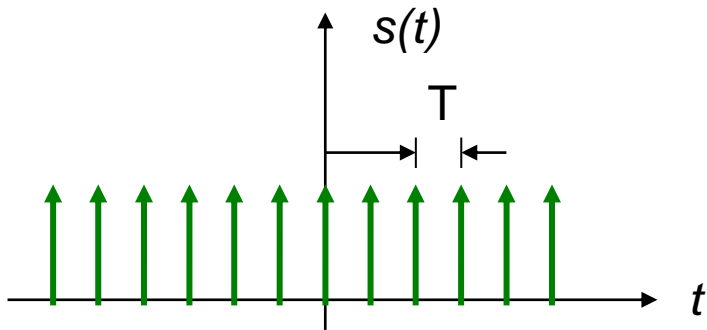
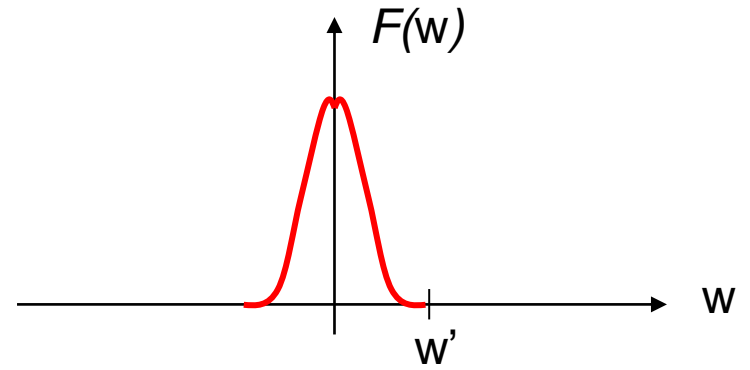
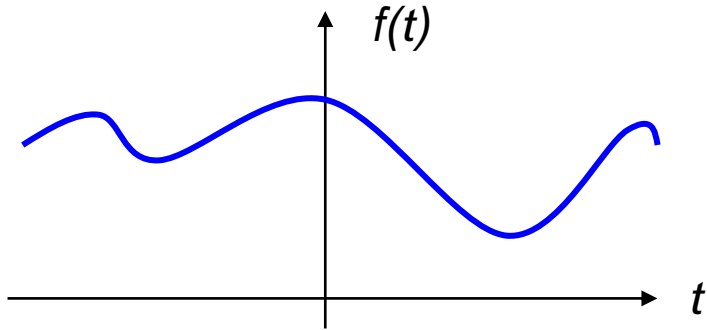
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