



Tratamiento de Señales

Version 2024-I

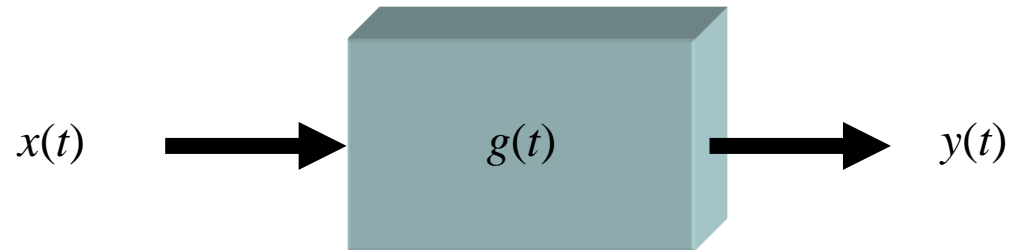
Convolución 1D

[Capítulo 4]

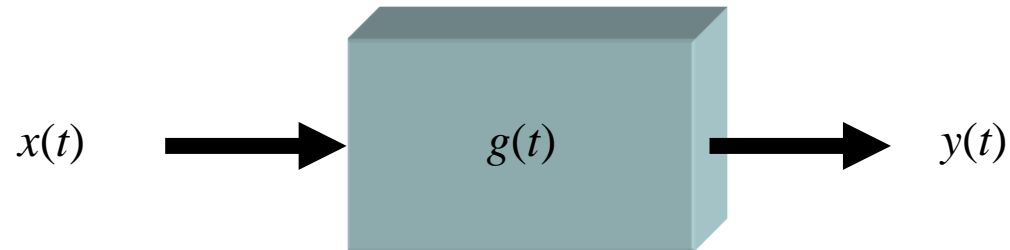
Dr. José Ramón Iglesias

DSP-ASIC BUILDER GROUP
Director Semillero TRIAC
Ingeniería Electronica
Universidad Popular del Cesar

[Convolución 1D]

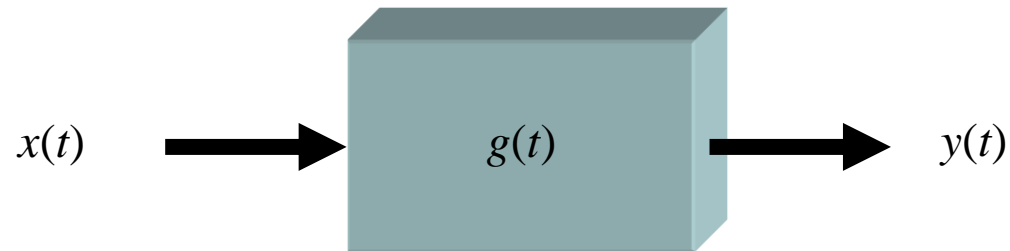


[Convolución 1D]



$$y(t) = \int_{-\infty}^{+\infty} g(t - \tau) x(\tau) d\tau$$

[Convolución 1D]

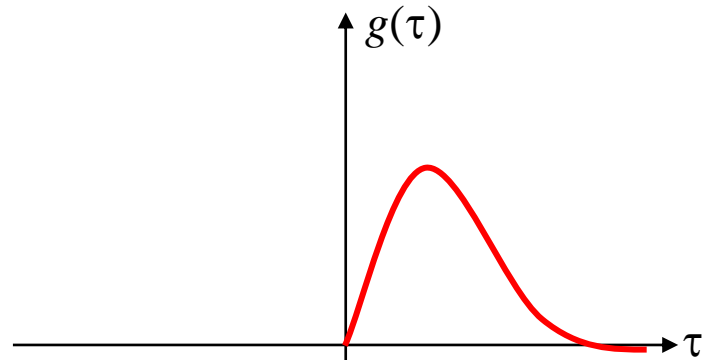
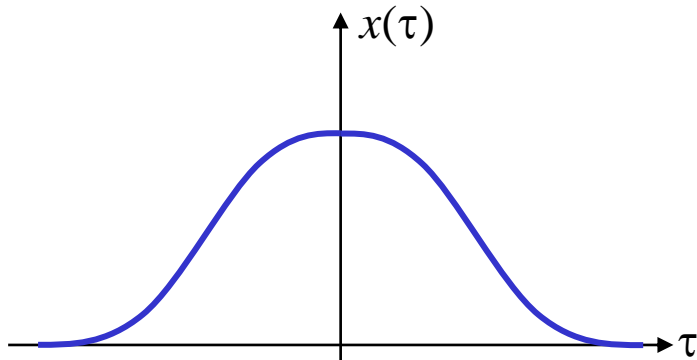


$$y(t) = \int_{-\infty}^{+\infty} g(t - \tau) x(\tau) d\tau$$

$$y(t) = x(t) * g(t)$$

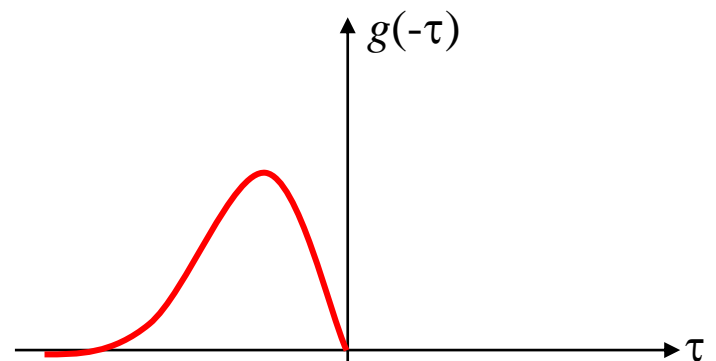
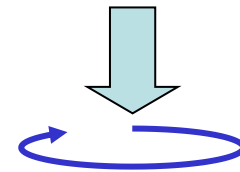
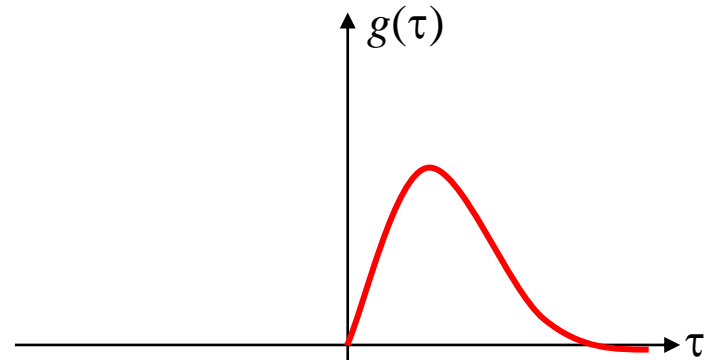
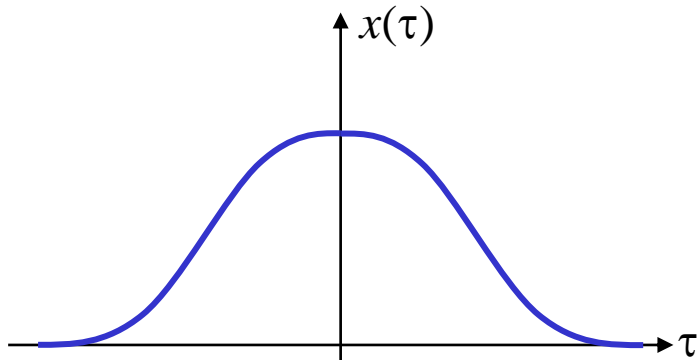
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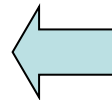
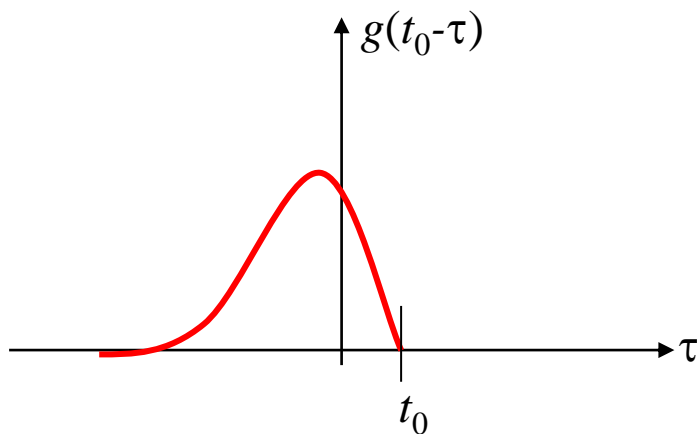
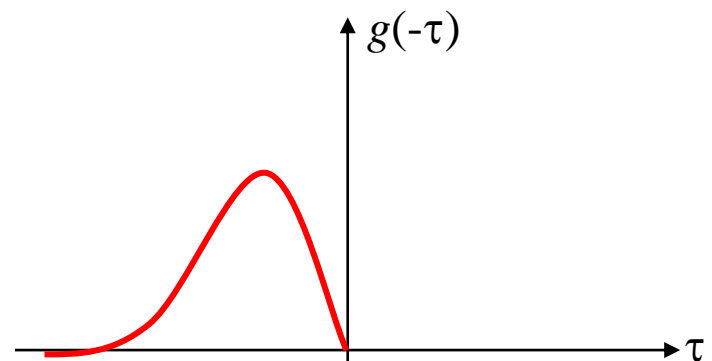
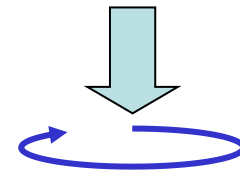
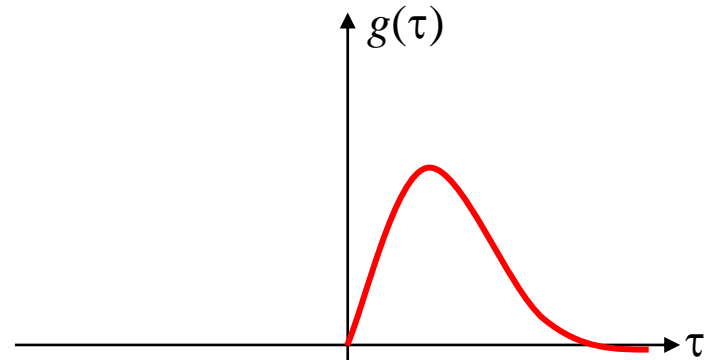
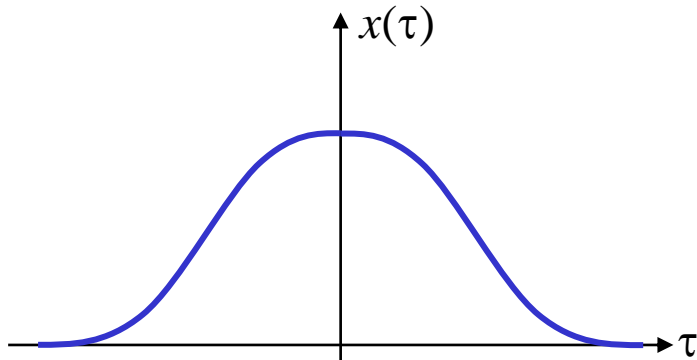
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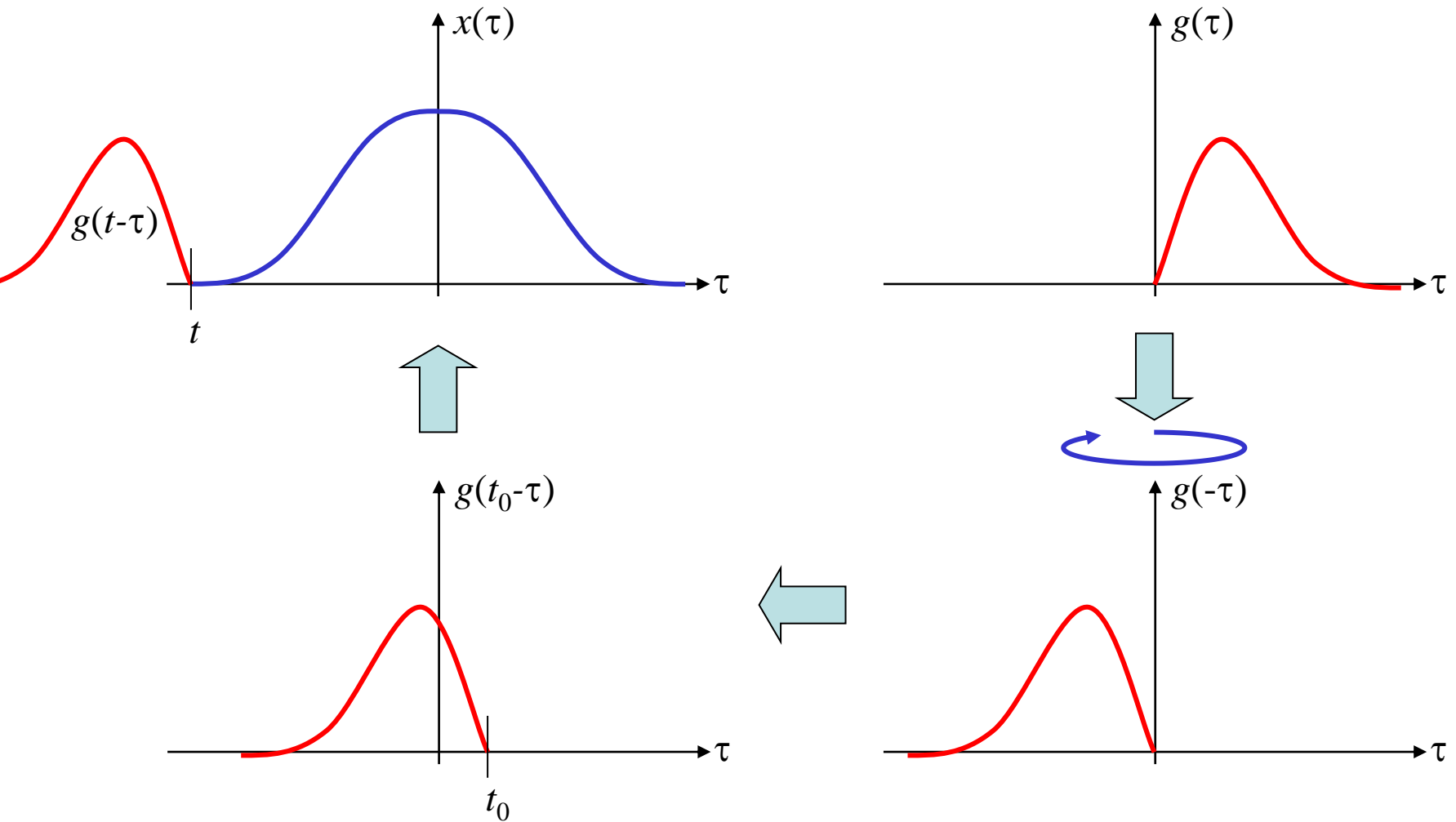
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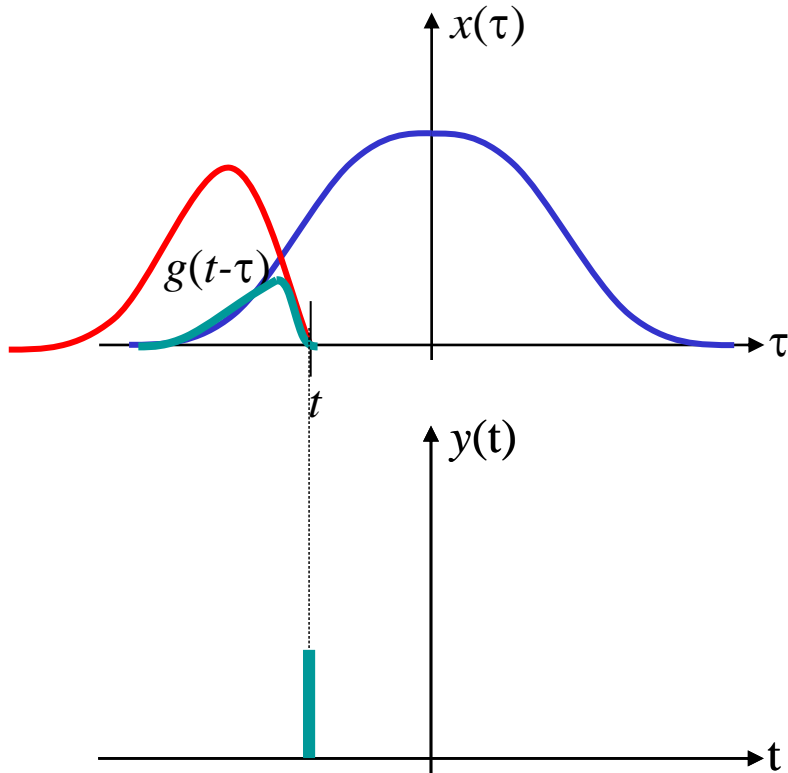
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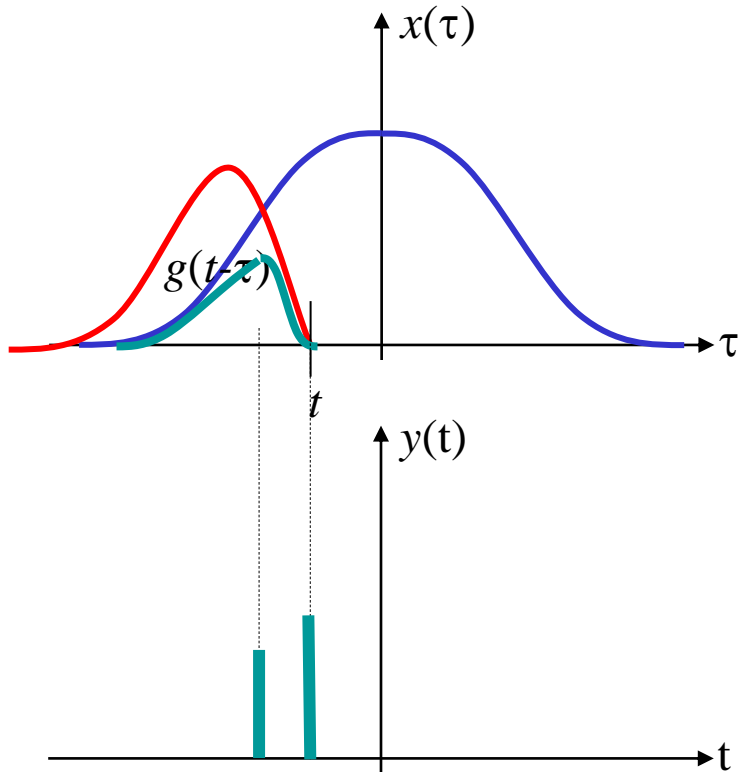
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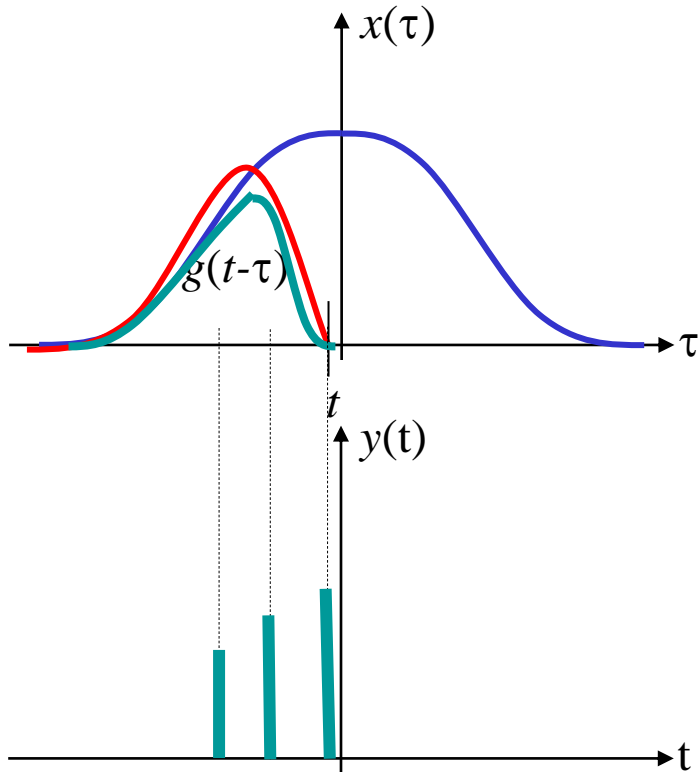
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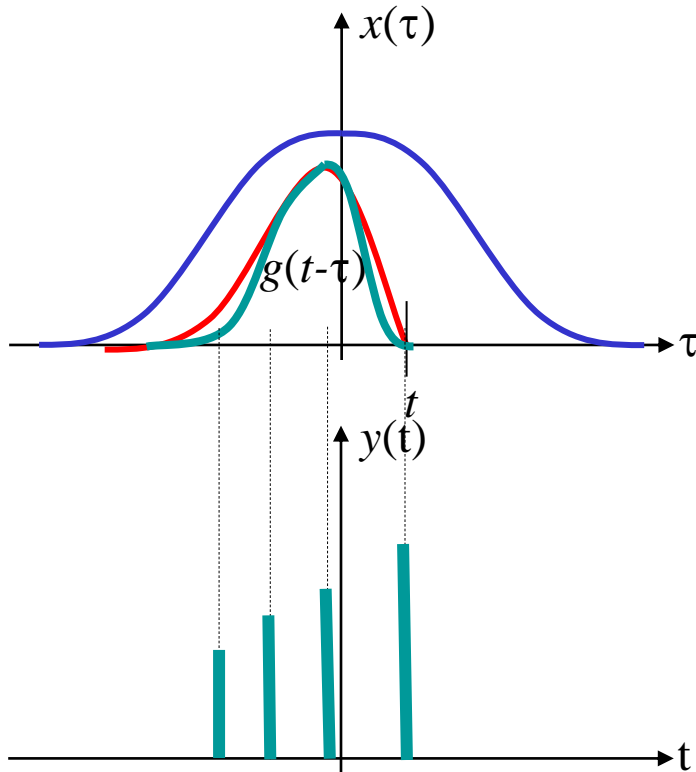
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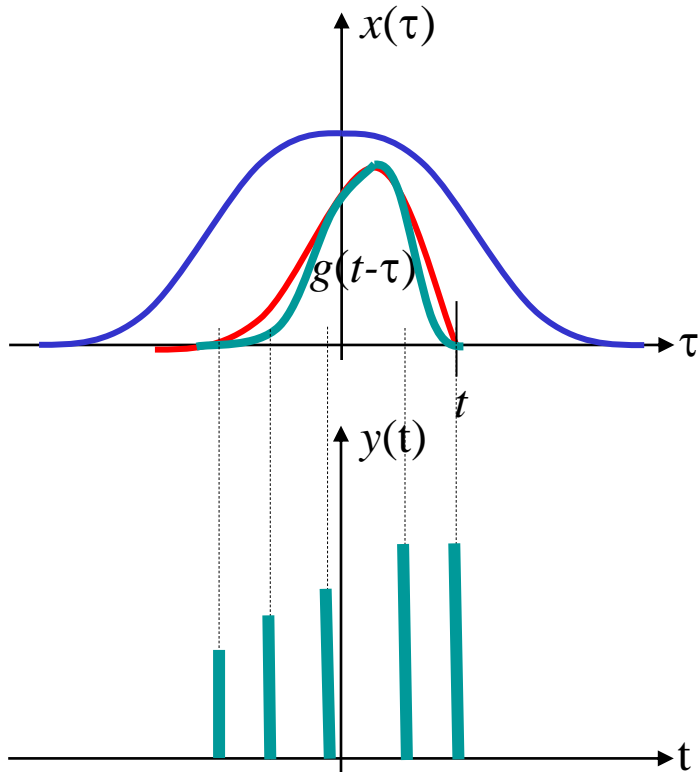
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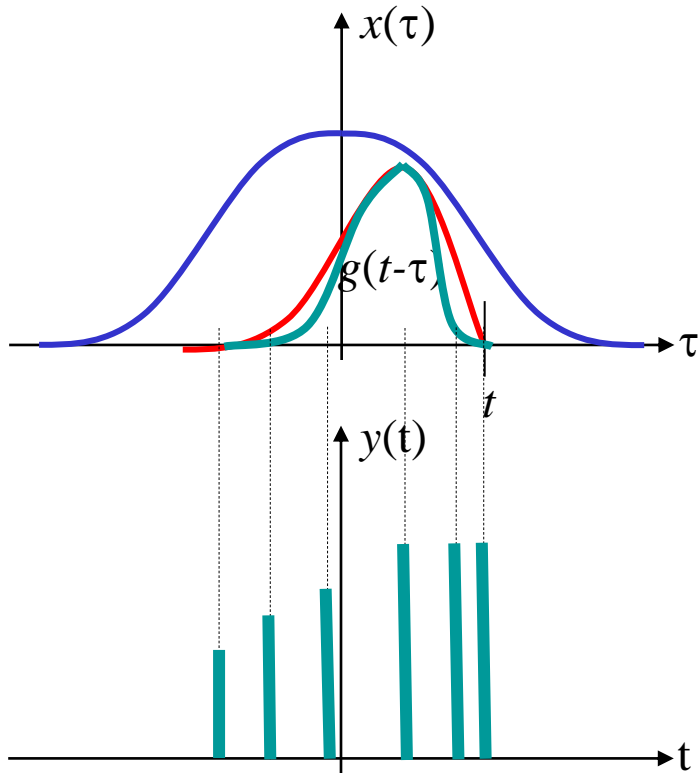
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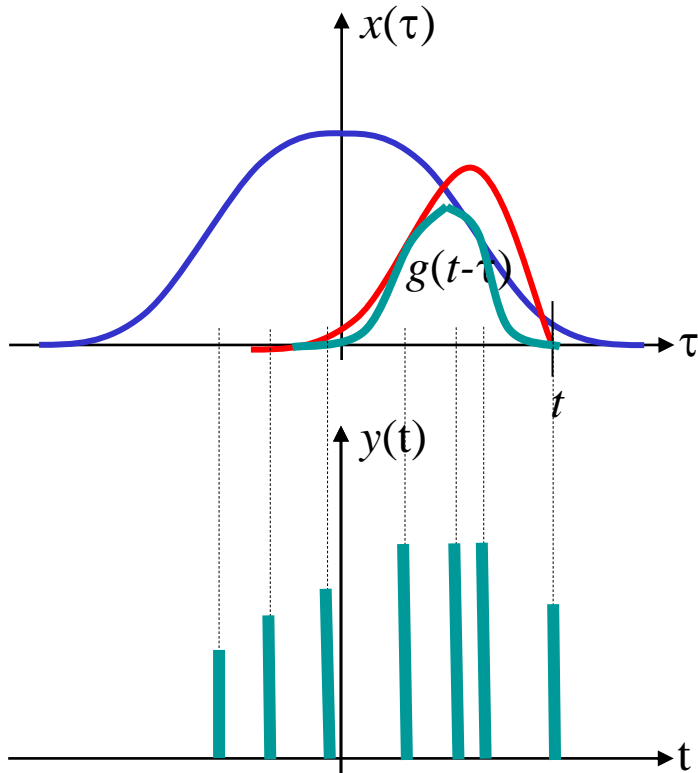
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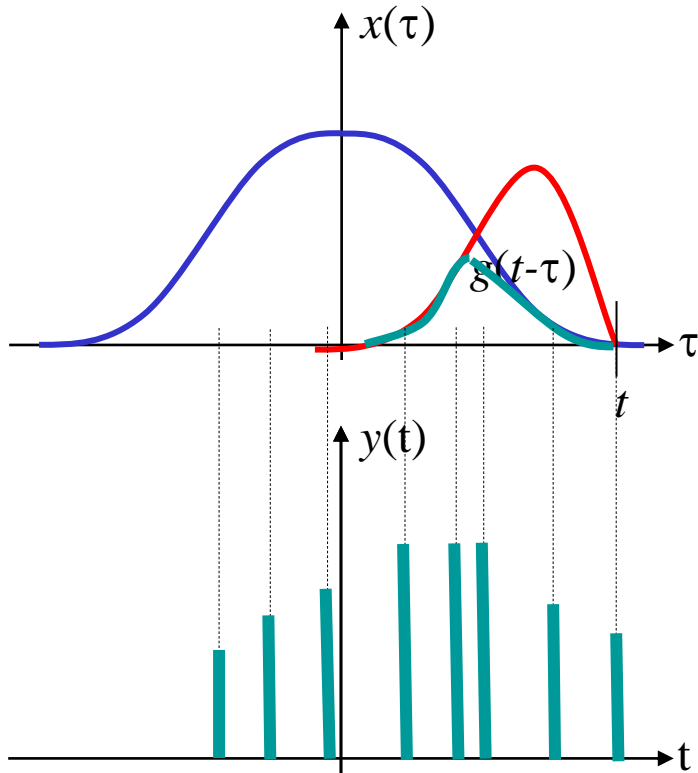
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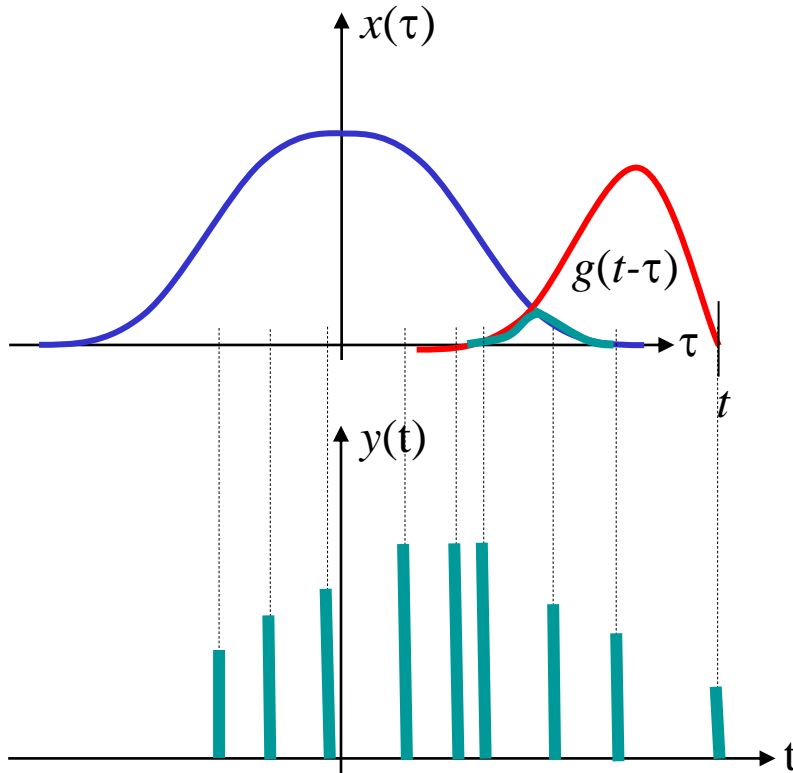
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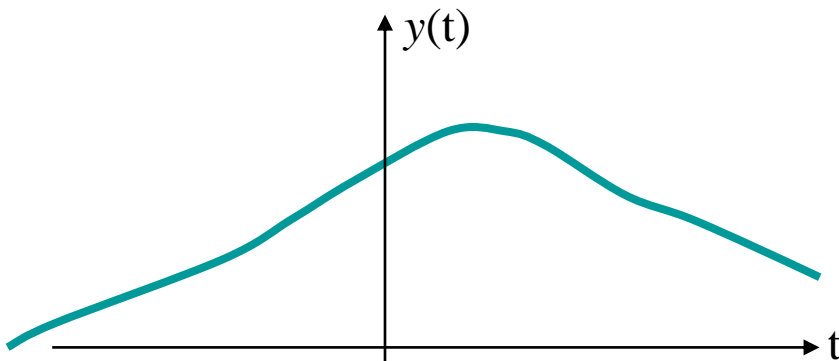
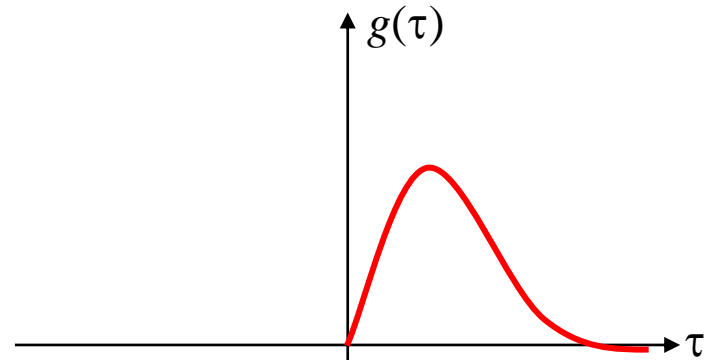
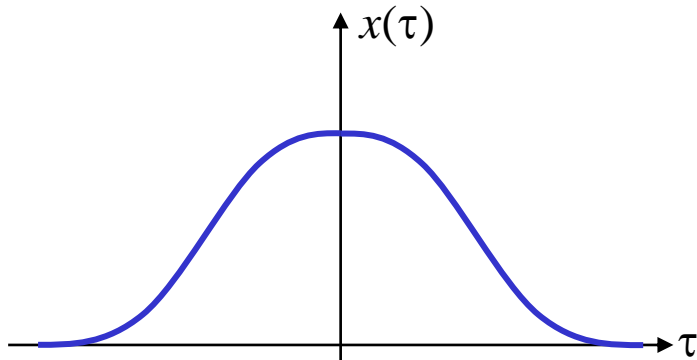
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[Convolución 1D]

Continua: $y(t) = \int_{-\infty}^{+\infty} g(t - \tau)x(\tau)d\tau$

Discreta: $y(k) = \sum_{i=-\infty}^{+\infty} g(k - i)x(i)$