Tarea 2: Transformadas Integrales

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11 de febrero de 2024

Nombre	Notación	Transformada	Inversa
Fourier	$\mathcal{F}$	$\int_{-\infty}^{\infty} \frac{e^{-ist}}{\sqrt{2\pi}} f(t)dt$	$\int_{-\infty}^{\infty} \frac{e^{ist}}{\sqrt{2\pi}} f(t)\ dt$
Hartley	$\mathcal{H}$	$\int_{-\infty}^{\infty} \frac{\cos{(st)}+\sin{(st)}}{\sqrt{2\pi}} f(t)\ dt$	$\int_{-\infty}^{\infty} \frac{\cos{(st)}+\sin{(st)}}{\sqrt{2\pi}} f(t)\ dt$
Mellin	$\mathcal{M}$	$\int_{0}^{\infty} t^{s-1} f(t)\ dt$	$\int_{c-i\infty}^{c+i\infty} \frac{t^{-s}}{2\pi i} f(t)\ dt$
Laplace Bilateral	$\mathcal{B}$	$\int_{-\infty}^{\infty} e^{-st} f(t)\ dt$	$\int_{c-i\infty}^{c+i\infty} \frac{e^{st}}{2\pi i} f(t)\ dt$
Laplace	$\mathcal{L}$	$\int_{0}^{\infty} e^{-st} f(t)\ dt$	$\int_{c-i\infty}^{c+i\infty} \frac{e^{st}}{2\pi i} f(t)\ dt$
Hankel	–	$\int_{0}^{\infty} t J_v(st) f(t)\ dt$	$\int_{0}^{\infty} s J_v(st) f(t)\ dt$
Abel	–	$\int_{s}^{\infty} \frac{2t}{\sqrt{t^2-s^2}} f(t)\ dt$	$\int_{t}^{\infty} \frac{-1}{\pi\sqrt{s^2-t^2}} \frac{d}{ds} f(t)\ dt$
Lorentz	–	$\int_{s}^{\infty} \frac{2t}{\sqrt{t^2-s^2}} f(t)\ dt$	$\int_{t}^{\infty} \frac{-1}{\pi\sqrt{s^2-t^2}} \frac{d}{ds} f(t)\ dt$
Hilbert	$\mathcal{H}$	$\int_{-\infty}^{\infty} \frac{1}{\pi} \frac{1}{s-t} f(t)\ dt$	$\int_{-\infty}^{\infty} \frac{1}{\pi} \frac{1}{s-t} f(t)\ dt$