- Cosine transform, inverse cosine transform

$$F_c(\alpha) = \mathcal{F}_c\{f\} = \int_0^\infty f(x)\cos\alpha x \mathrm{d}x,$$

$$f(x) = \mathcal{F}_c^{-1}\{F_c\} = \frac{2}{\pi}\int_0^\infty F_c(\alpha)\cos\alpha x \,\mathrm{d}\alpha$$

- Sine transform, inverse sine transform

$$F_s(\alpha) = \mathcal{F}_c\{f\} = \int_0^\infty f(x)\sin\alpha x \mathrm{d}x,$$

$$f(x) = \mathcal{F}_s^{-1}\{F_s\} = \frac{2}{\pi}\int_0^\infty F_s(\alpha)\sin\alpha x \,\mathrm{d}\alpha$$