Probability of Identity, ψ(x)

One Long Jump

$$\psi = \Gamma(1+\alpha)\sin(\pi\alpha/2)\frac{D_\alpha}{2\,\pi\rho\mu^2}x^{-1-\alpha}$$

$\bar{x}$

One Quick Jump

$$\psi = \Gamma(1-\alpha)\sin(\pi\alpha/2)\frac{x^{-1+\alpha}}{2\,\pi D_\alpha\,\rho}$$

Superdiffusive Spreading

$$\psi = \frac{e^{-(x/\bar{x})^{\alpha-1}}}{2\,\alpha\sin(\pi/\alpha)\,\rho\mu\,\bar{x}+1}$$

Diffusive Spreading

$$\psi = \frac{e^{-x/\bar{x}}}{4\,\rho\mu\,\bar{x}\;+\;1}$$

δ

Initial Contact

$$\psi = (1+[2^{(\alpha+3)/2}\pi/\Gamma(1/2\;-\alpha/2)]D_\alpha\rho\delta^{1-\alpha})^{-1}$$

1

2