Probability of Identity, $\psi(x)$

One Long Jump

$$\psi \propto \frac{D_{\alpha}}{\rho \mu^2} x^{-1-\alpha}$$

 \overline{X}

One Quick Jump

$$\psi \propto \frac{x^{-1+\alpha}}{D_{\alpha} \rho}$$

Initial Contact $\psi \sim \delta^{-1+\alpha}/(D_{\alpha}\rho)$

Superdiffusive Spreading

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

Diffusive Spreading

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

1

2