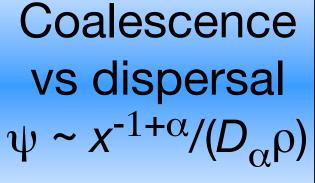
δ

Probability of identity $\psi(x)$ in one dimension

One long jump

$$\psi \sim (D_{\alpha}/\rho\mu^2) x^{-1-\alpha}$$



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

Superdiffusive spreading $\psi(0) \sim 1/(\rho \overline{x} \mu)$ $\psi(0) - \psi \sim x^{\alpha-1}/(D_{\alpha}\rho)$

Diffusive spreading $\psi \sim \frac{e^{-x/\bar{x}}}{\sqrt{\mu D} \rho}$

Dispersal tail exponent, α