



Questions:

- How does a random walker move inside each of these labyrinths?
- What about many *interacting* random walkers?

Calculus on nonsmooth spaces \Leftrightarrow Markov chains/processes

+ Limit theorems (law of large numbers, central limit theorem).

Physical applications: Heat diffusion, wave propagation, hydrodynamics (of charged particles or of fluids), quantum field theory (path integrals).

Biological applications: Cluster growth models, gene network modeling.

<http://math.colgate.edu/~jpchen>