

CHAPTER OVERVIEW

18: Brownian Motion

Brownian motion is a stochastic process of great theoretical importance, and as the basic building block of a variety of other processes, of great practical importance as well. In this chapter we study Brownian motion and a number of random processes that can be constructed from Brownian motion. We also study the Ito stochastic integral and the resulting calculus, as well as two remarkable representation theorems involving stochastic integrals.

[18.1: Standard Brownian Motion](#)

[18.2: Brownian Motion with Drift and Scaling](#)

[18.3: The Brownian Bridge](#)

[18.4: Geometric Brownian Motion](#)

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