

This work concerns the fractional Brownian motion, in particular, the properties of its trajectories. Firstly some basic notions are defined and then the definition of the fractional Brownian motion itself is given. Subsequently, its basic properties such as correlation of increments and self-similarity are derived. Continuity of its trajectories is shown using the Kolomogorov-Chentsov Theorem. The main chapter contains a thorough proof of the law of the iterated logarithm. It is complemented with simulations of limit behavior of trajectories and used to prove nondifferentiability.