Understanding an Uncertain World
How Randomness Affects Us

Idea of randomness arrives from gambling and spreads to the theory of Stochastic Processes, to Quantum Mechanics, Option Pricing, Population biology, Neural Firing.

The Central Limit Theorem – a bridge between the theory and reality

The sum of a large number of independent identically distributed random variables normally distributed

Brownian Motion and Finance

Randomness in Bio Systems

Random fluctuations are fundamentally important in the phenomena around us. Without them: no evolution of species; no protein folding; no cell-membrane function.

Stochastic difference and differential equations: the area of research of Stochastics Dynamics Group at Mathematical Department, UWI,

Randomness in Bio Systems

There is an extraordinary balance between function and fluctuation, between hard physical rules and the subtle effects of randomness.

The statistical perception of reality is seen as being a more productive tool than classical determinism.