CCSU DEPARTMENT OF MATHEMATICAL SCIENCES

COLLOQUIUM

Friday, April 15 2:00 – 3:00 PM Maria Sanford, Room 101

BROWNIAN MOTION: ITS HISTORY, AND PROPERTIES

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WEST POINT

ABSTRACT

The physical phenomenon of Brownian motion is named after the Scottish botanist Robert Brown, who observed the seemingly random movement of particles suspended in a fluid. The mathematical model of Brownian motion, also called the Wiener process, is an example of nearly every kind of interesting stochastic process: it is a martingale, a Gaussian process, a Markov process, a Lévy process, etc...

In this talk, we will briefly delve into the history, explore some interesting properties, and give an overview of Lévy's construction which is in the spirit of Wiener's original construction of Brownian motion in 1923.

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