Lectures on Pure and Applied Math

Research Topics in the Mathematical Sciences

Announcing

A Seminar Presentation on November 12, 2015 at 4:30 pm in Maxcy 203

at The University of New Haven

Dr. Kei Kobayashi
Department of Mathematics
University of Tennessee, Knoxville

Title: Numerical approximation of stochastic differential equations driven by a time-changed Brownian motion

Abstract:

A discretization scheme is proposed for a large class of stochastic differential equations driven by a time-changed Brownian motion with drift, where the time change is given by the so-called “inverse subordinator”. The scheme involves two types of errors: one generated by application of the Euler-Maruyama scheme and the other ascribed to simulation of the inverse subordinator. With the two errors carefully examined, the orders of strong and weak convergence are established.

Further Information

For further information, please contact Angie Domschine at the Department of Mathematics, Office: Maxcy 204, 203-932-7250, ADomschine@newhaven.edu.