

MICHIGAN STATE UNIVERSITY
Department of Statistics and Probability

COLLOQUIUM

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Remarks on Partial Stochastic Differential Equations

Tuesday, March 16, 2021
10:20 AM - 11:10 AM [Eastern Standard Time \(EST\)](#)
Zoom

Abstract

In this student and non-specialist accessible presentation the author will walk the audience from ordinary differential equations to infinite-dimensional equations. Once there, we will explore different notions of a solution and their interpretations. To demonstrate the importance and different forms of the Itô formula (or more accurately, the Itô method), we will examine essential properties of solutions: stability, ultimate boundedness, existence of invariant measure. Some advanced discussion will include the Yosida approximation and constructing the Itô formula for mild solutions to stochastic differential equations driven by Gaussian and non-Gaussian noise (compensated Poisson random measure associated to a Lévy process). Through some examples, we will compare this Itô formula other Itô formulas for mild solutions.

Zoom details can be found at: <https://stt.natsci.msu.edu/stt-colloquium-zoom-info/>

To request an interpreter or other accommodations for people with disabilities, please call the Department of Statistics and Probability at 517-355-9589.