

## The Department of Mathematics is kindly inviting you to attend a math seminar about

## **Stochastic Differential Equations**

## by Dr. Abdelrahim Mousa

Date: Saturday May 27, 2017 Room: KNH625 Time: 9:20

**Title:** The existence of solution for a stochastic optimal control problem with a random horizon.

## Abstract

We provide sufficient conditions guaranteeing the existence of solution to a stochastic optimal control problem with diffusive state variable dynamics and a random horizon. We resort to the weak formulation for the optimal control problem under consideration herein and make use of weak convergence techniques together with Roxin's condition to obtain the desired existence result.

**Note:** This seminar will be followed by a sequence of presentations presented by Master Students about Stochastic Differential Equations and its applications (please see the attached file).