PhD proposal defense

Date and time:
Wed, 2015-10-07 11:30

Location / Venue:

Room 135

1.Candidate: Nicholas Mwilu Mutothya

Title: Continuous and discrete probability distributions emerging from pure birth process.

Abstract:

Many real life process evolve according to the rules of a pure birth process. The Probability that the population will reach a certain size by time t is obtained by solving a system of basic difference differential equations. Various methods are used to solve this system of equations.

They include; iteration method, generating function method, Laplace transforms method, generator matrix method and integral representation technique. Classical pure birth process are extended and their solutions obtained.

2.Candidate: Ochomba Nyangera Wycliff

Title: Mathematical model for influence of climate parameter on the spread of malaria in Kisii highlands.

Abstract:

A deterministic mathematical model of malaria shall be formulated using a systems of ODEs to investigate the impact of the disease dynamics and climate change.

Candidate: Wanyoike John Ngaii

Title: CONSTRUCTIONS OF SOME BALANCED ASYMMETRICAL FACTORIAL DESIGNS.

Abstract:

I propose to construct a balanced asymmetrical factorial designs using different methods that involve Hadamard matrices, orthogonal arrays, balanced arrays and transitive arrays. I also aim to find a unified method for calculating efficiency factors of main effects and interaction effects of balanced asymmetrical factorial designs while using the method of least squares.