



CCAM
presents:

Dr. Derdei Bichara
Department of Mathematics

Seminar Topic

**Perspectives on the Role of Mobility and Behavior on the
Spread of Infectious Diseases**

The dynamics, control, and evolution of communicable and vector-borne diseases are intimately connected to the joint dynamics of epidemiological, behavioral, and mobility processes that operate across multiple spatial, temporal, and organizational scales. The identification of a theoretical explanatory framework that accounts for the pattern regularity exhibited by a large number of host-parasite systems, including those sustained by host-vector epidemiological dynamics, is but one of the challenges facing the co-evolving fields of computational, evolutionary and theoretical epidemiology. It is therefore important to identify and quantify the processes responsible for observed epidemiological macroscopic patterns: the result of individual interactions in changing social and ecological landscapes. A modeling framework that relies on the interplay between active, behavior-rich human hosts and infection risks is proposed and analyzed for a general class of communicable and vector-borne diseases.

Friday, September 30, 2016

Location: MH – 476

Time: 3:00 p.m.

Refreshments will be served

For questions email: ccam@fullerton.edu